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

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Bank of Thailand Economic Symposium, 9-10 August 2006

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 cooperation and integration is vitally important

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

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?

What is the degree of financial integration in East Asia?

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

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

<table>
<thead>
<tr>
<th>Source: Annual Report on Exchange Arrangements and Exchange Restrictions, 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capital and money market instruments</strong>:</td>
</tr>
<tr>
<td>Capital market securities</td>
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<tr>
<td>Money market instruments</td>
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<tr>
<td>Collective investment securities</td>
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<tr>
<td><strong>Direct investment</strong>:</td>
</tr>
<tr>
<td>Commercial credits</td>
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<tr>
<td>Financial Credits</td>
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<tr>
<td><strong>Credit operations</strong>:</td>
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<tr>
<td>Credit operations</td>
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<tr>
<td><strong>Real estate transactions</strong>:</td>
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<tr>
<td>Real estate transactions</td>
</tr>
<tr>
<td><strong>Personal capital movements</strong>:</td>
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<tr>
<td>Personal capital movements</td>
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</tbody>
</table>

* indicates that the specified practice is a feature of the exchange system.

东亚洲际金融开放性统计数据

东亚洲际金融开放性统计数据

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 indicates 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

东亚洲际金融开放性统计数据

东亚洲际金融开放性统计数据

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

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

Source: BIS

Source: NAFTA EU15 East Asia ROW Total

<table>
<thead>
<tr>
<th>Destination</th>
<th>NAFTA</th>
<th>EU15</th>
<th>East Asia</th>
<th>ROW</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAFTA</td>
<td>545</td>
<td>1776</td>
<td>747</td>
<td>1620</td>
<td>4688</td>
</tr>
<tr>
<td>EU15</td>
<td>1614</td>
<td>6058</td>
<td>804</td>
<td>1455</td>
<td>9931</td>
</tr>
<tr>
<td>East Asia</td>
<td>476</td>
<td>415</td>
<td>110</td>
<td>165</td>
<td>1166</td>
</tr>
<tr>
<td>ROW</td>
<td>823</td>
<td>1292</td>
<td>566</td>
<td>492</td>
<td>3173</td>
</tr>
<tr>
<td>Total</td>
<td>3458</td>
<td>9541</td>
<td>2227</td>
<td>3732</td>
<td>18958</td>
</tr>
</tbody>
</table>

Source: Asian Bond Monitor
Quantity-based measures: Summary

Financial integration in East Asia

- Lags behind integration with developed economies

1.3. Price-based measures

- 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

Exchange rate movements after CNY revaluation

Source: CEIC

Degree of exchange rate comovement increases over time

Pairwise Correlation Matrices for Exchange Rates

Sources: CEIC and authors’ calculation

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

\[ \text{Export}_{it} = \beta_0 + \beta_1 \text{GDP}_{it} + \beta_2 \text{GDP}_{jt} + \beta_3 \text{Distance}_{ij} + X_{ib} + e_{it} \]

- 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

<table>
<thead>
<tr>
<th>Regressor</th>
<th>Coef.</th>
<th>t-stat</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>0.1361</td>
<td>2.27</td>
<td>0.02</td>
</tr>
<tr>
<td>Exporting Country’s GDP</td>
<td>0.7998</td>
<td>3.22</td>
<td>0.00</td>
</tr>
<tr>
<td>Trading Partner’s GDP</td>
<td>0.6950</td>
<td>4.90</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Second-stage Regression
Dependent variable: Export

Other channels through which financial integration can promote economic growth

Financial integration helps channel funds to investment in the region

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

Other channels through which financial integration can promote economic growth

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

• 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

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

Domestic output growth of country A
Domestic consumption growth of country A

Growth

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

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

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

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

The main costs of regional financial integration are

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 reoccurrence of crises with sudden stops and reversals of capital flows.

Reversals in Net Private Capital Flows in 100s as a percentage of GDP

Source: Calvo and Reinhart (1999)
Severity of Crises

<table>
<thead>
<tr>
<th>Period</th>
<th>Latin America</th>
<th>East Asia</th>
<th>Others</th>
<th>Latin America</th>
<th>East Asia</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-94</td>
<td>25.4</td>
<td>48.1</td>
<td>8.3</td>
<td>N.A.</td>
<td>14.6</td>
<td>21.6</td>
</tr>
<tr>
<td>1995-97</td>
<td>15.0</td>
<td>40.4*</td>
<td>N.A.</td>
<td>12.0</td>
<td>21.8</td>
<td>2.8</td>
</tr>
</tbody>
</table>

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

Source: Calvo and Reinhart (1999)

How to manage risks from greater financial integration?

At the domestic level

- Monetary and exchange rate frameworks
- Composition of capital flows
- Financial sector development
- Financial regulation and supervision
- Transparency

At the regional level

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

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

Who do it?

- Domestic: Central bank, MOF, others
- Regional: ACBF, ASEAN, ASEAN+, APEC, ASEM, EMEAP, SEACEN, SEANZA, ADB
- IFI: IMF, World Bank, BIS

Why is regional surveillance needed?

- 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
What are the current obstacles of the existing regional surveillance mechanism?

**Obstacles**
- Non-interference principle
- Homogenous views
- Lack of expertise

**How to improve**
- Independent process
- Cross regional surveillance
- Interface with IMF
- Permanent structure, sufficient resources

Liquidity support is a necessary cushion and can be obtained from

<table>
<thead>
<tr>
<th>Domestic</th>
<th>Regional</th>
<th>IMF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign reserves</td>
<td>Chiang Mai Initiative (CMI)</td>
<td>IMF’s lending programs</td>
</tr>
<tr>
<td>Opportunity cost</td>
<td>ASEAN Swap Arrangements</td>
<td>- Strict conditionality</td>
</tr>
<tr>
<td>Sterilization cost</td>
<td>Bilateral Swap Arrangements</td>
<td>- Restricted by quotas</td>
</tr>
<tr>
<td>Low rate of returns</td>
<td></td>
<td>- Depending on credibility of program</td>
</tr>
<tr>
<td>Negative effect on CB balance sheet</td>
<td></td>
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</tbody>
</table>

CMI’s effectiveness is not yet tested and there are rooms for important improvements

**Problems**
- Insufficient amount to counter crisis
- Moral Hazard, IMF Conditionality
- Activation process

**How to enhance**
- Increase amount of swap
- Enhance surveillance mechanism, facilities
- Collective decision

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)**
- Capital market infrastructure
- Enabling environment
- Regulations & supervision
- Incentives

**Asian Bond Market Initiatives (ABMI)**
- To recycle Asian savings to Asian economies
- Mechanism to identify market impediments

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.
• 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.