Developing Cross-border Bond Markets in Asia

The Trilateral Forum for Asian Capital Market Law and Regulation: China, Japan and Korea

- Beijing, China-

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I. Overview of Asian Bond Markets

1. Lessons from the 1997/98 Asian Financial Crisis

The Asian Bond Markets Initiative (ABMI) was endorsed by the ASEAN+3 Finance Ministers Meeting in August 2003:

Local Currency Long-term Lending

Foreign Currency Short-term Borrowing

Asian Financial Crisis

Double Mismatch & Original Sin

Absence of well-functioning bond market in the region

ABMI aims to:

- **Develop a robust bond market**
- **Avoid the double mismatch of maturity and currency**
- **Lessen dependence on bank borrowings**
- **Re-cycle more Asian savings into the Asian economies**
- **Promote regional financial harmonization and integration**

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2. Lessons from the 2007/08 Global Financial Crisis

- **Excessive dependence on the US dollar made Asian countries experience a "dollar shortage" in international trade and payments resulting from US subprime mortgage crisis.**

- **"Original sin" (Eichengreen et al, 2003) is a situation where the domestic currency is not used to borrow abroad or to borrow long-term even domestically.**

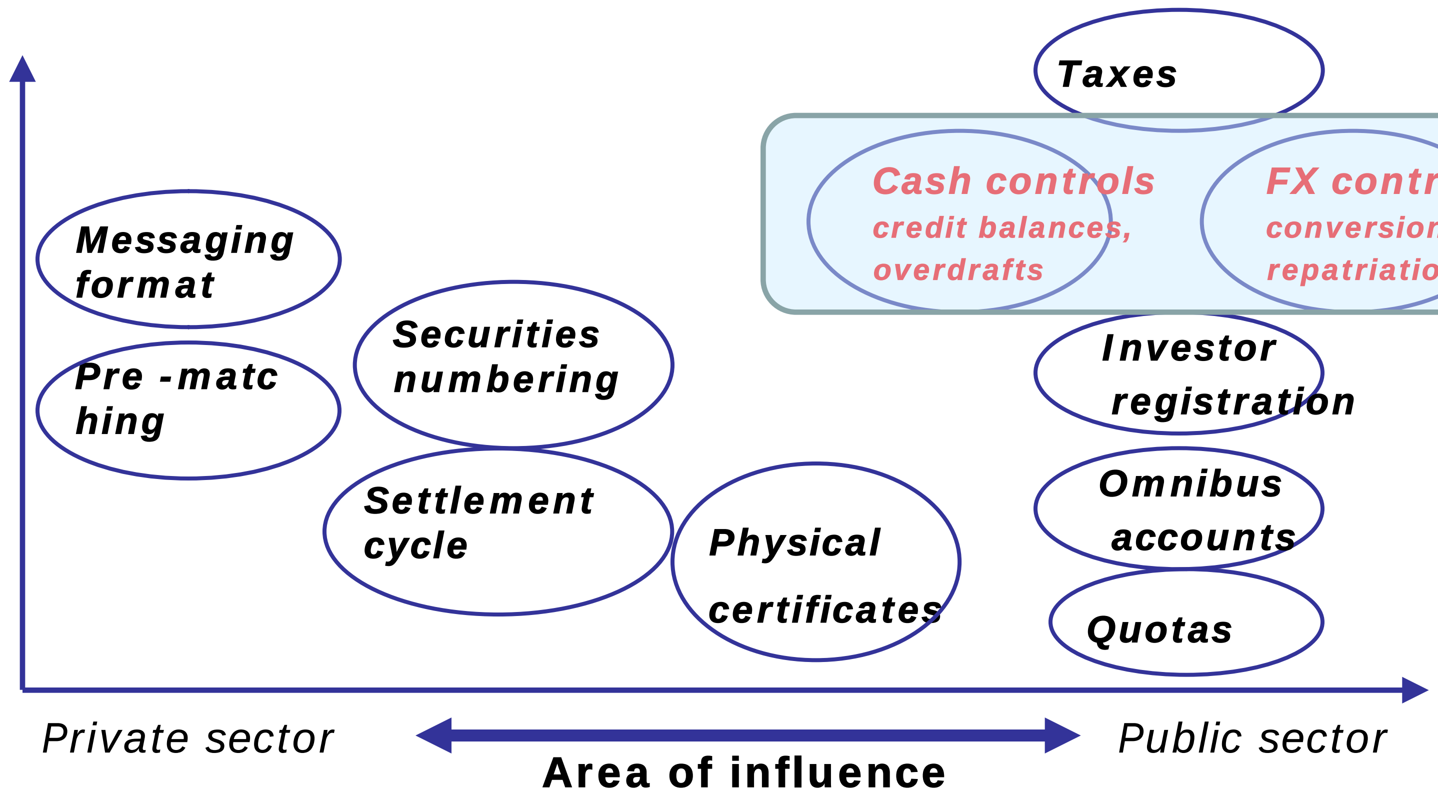
- **Therefore a wider use of Asian local currencies, especially in regional trade and investment can mitigate the risks resulting from over-dependence of the US dollar.**

- **The development of common regional bond markets in Asian local currencies is also expected to contribute to greater mobilization and recycling of the abundant regional savings within the region.**

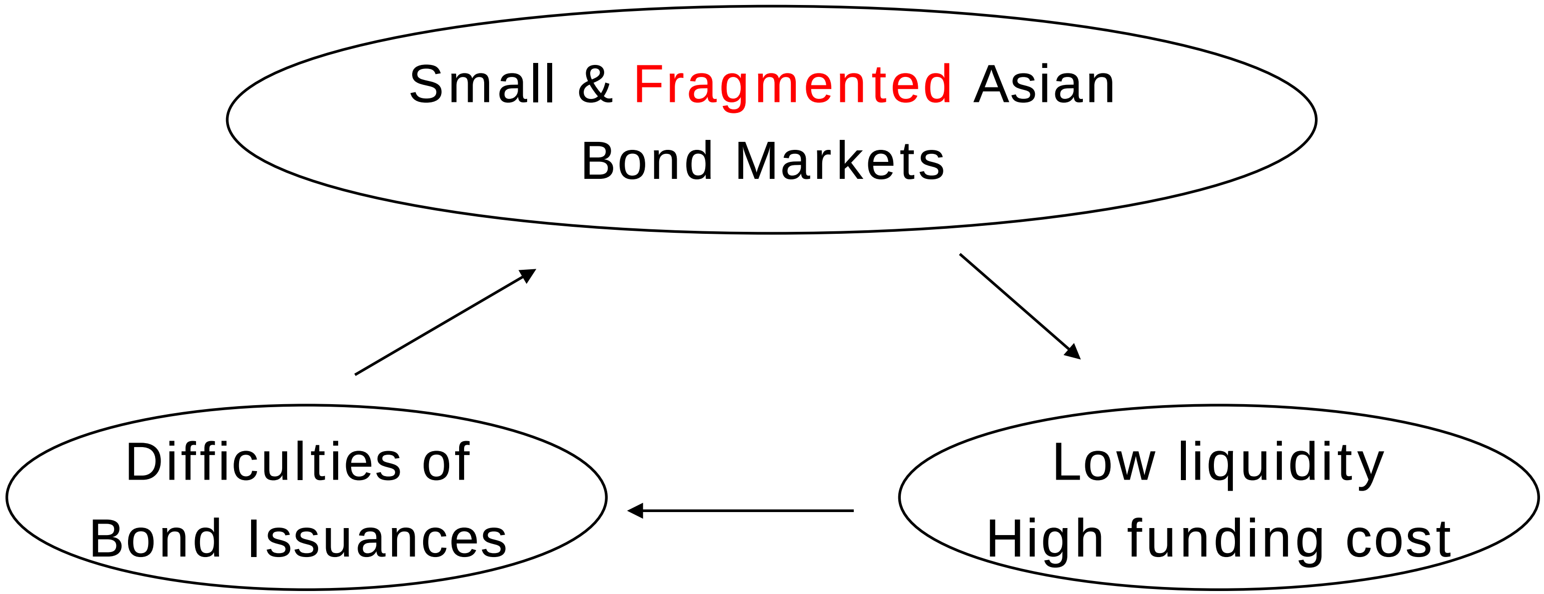
3. The Growth of Asian Bond Markets

	1997		2010	
	Outstanding	GDP ratio (%)	Outstanding	GDP ratio (%)
China	83.6	(8.78)	2,969.1	(51.68)
Hong Kong	41.1	(23.31)	61.9	(27.33)
Indonesia	4.3	(1.80)	107.3	(15.44)
Malaysia	54.5	(53.60)	218.8	(99.93)
Philippines	16.7	(19.94)	63.8	(33.75)
Singapore	23.7	(23.87)	122.6	(56.40)
Korea	153.2	(28.78)	1,118.7	(113.43)
Thailand	10.4	(6.89)	218.0	(69.74)
Asia Total	387.7	(16.60)	4,880.3	(56.81)
Japan	4,148.5	(97.34)	13,275.1	(246.25)
US	11,604.6	(139.27)	25,158.2	(172.03)
EU15	7,019.3	(83.02)	16,571.2	(111.25)

4. Identification of Major Barriers



5. Size Trap of Small Asian Bond Markets



Eichengreen & Luengnaruemichia (2004) "liquid securities markets have a certain minimum efficient scale and thus the small economies of Asia face difficulties in developing bond markets"

6. Who invests in Asian bond?

Portfolio Investment: long-term debt securities (USD million, 2009)

	Indonesia	Malaysia	Philippines	Singapore	Thailand	Japan	Korea	Asia	US	EU15
ASEAN	0.44 (11.6)	1.01 (14.6)	0.08 (1.5)	15.47 (8.0)	0.32 (1.6)	11.26 (0.5)	0.54 (2.1)	27.57 (1.1)	25.45 (1.3)	37.81 (0.3)
Korea	0.01 (0.3)	1.30 (18.8)	0.19 (3.7)	17.79 (9.2)	15.14 (75.3)	9.01 (0.4)	0.00 (0.0)	42.61 (1.7)	17.62 (0.9)	37.81 (0.3)
China	0.14 (3.6)	0.10 (1.4)	0.08 (1.5)	5.22 (2.7)	0.18 (0.9)	2.25 (0.1)	0.54 (2.1)	7.52 (0.3)	1.96 (0.1)	12.60 (0.1)
Japan	0.15 (3.9)	0.00 0.0	0.11 (2.1)	7.74 (4.0)	0.08 (0.4)	0.00 0.0	0.20 (0.8)	7.52 (0.3)	35.24 (1.8)	201.64 (1.6)
(ASEAN+3)	0.74 (19.4)	2.40 (34.8)	0.44 (8.8)	46.22 (23.9)	15.74 (78.3)	20.27 (0.9)	1.28 (5.0)	87.73 (3.5)	78.30 (4.0)	277.26 (2.2)
US	0.45 (11.9)	1.04 (15.1)	2.32 (46.4)	41.39 (21.4)	1.51 (7.5)	689.05 (30.6)	13.03 (51.1)	749.44 (29.9)	0.00 0.0	1,852.57 (14.7)
EU15	1.19 (31.3)	0.87 (12.6)	0.47 (9.3)	66.92 (34.6)	1.29 (6.4)	828.66 (36.8)	5.38 (21.1)	904.85 (36.1)	935.73 (47.8)	8,758.74 (69.5)
(EU15+US)	1.64 (43.2)	1.92 (27.8)	2.79 (55.7)	108.30 (56.0)	2.79 (13.9)	1,517.71 (67.4)	18.41 (72.2)	1,654.29 (66.0)	935.73 (47.8)	10,611.31 (84.2)
Others	1.42 (37.4)	2.58 (37.4)	1.78 (35.5)	38.87 (20.1)	1.57 (7.8)	711.57 (31.6)	5.81 (22.8)	764.48 (30.5)	943.56 (48.2)	1,713.94 (13.6)
Total	3.84	6.90	4.97	193.39	20.09	2,251.82	25.48	2,506.50	1,957.57	12,602.54

Source: IMF, CPIS

7. Major Foreign Holders of US Treasury Securities (USD Billion, Aug 2010)

	Country	Amount	Share (%)
1	**China**	868.4	20.6
2	**Japan**	836.6	19.9
3	United Kingdom	448.4	10.6
4	Brazil	165	3.9
5	**Hong Kong**	137.8	3.3
6	**Taiwan**	130.2	3.1
7	Russia	129	3.1
8	Switzerland	106.6	2.5
9	Canada	103.4	2.5
10	Luxembourg	79.1	1.9
11	**Thailand**	60.9	1.4
12	Germany	58.7	1.4
13	**Singapore**	52.7	1.3
14	Ireland	42	1.0
15	**Korea**	41.6	1.0
	Grand Total	4212.9	

Source: US Treasury

II. Cross-border Bond Markets in Asia

1. Asian Cross-Border Bond Markets

International Bond Markets

Eurobond Market (London)

Rule144A Market(NY)

Asian Issuers

To provide stable funds to Asian core fund raisers for the economic growth in Asia

Asian Investors

To bring an appropriate investment opportunity to the abundant savings in Asia

Asian Cross-Border Capital

To enable the abundant savings in the region to be circulated efficiently within the region ･･･

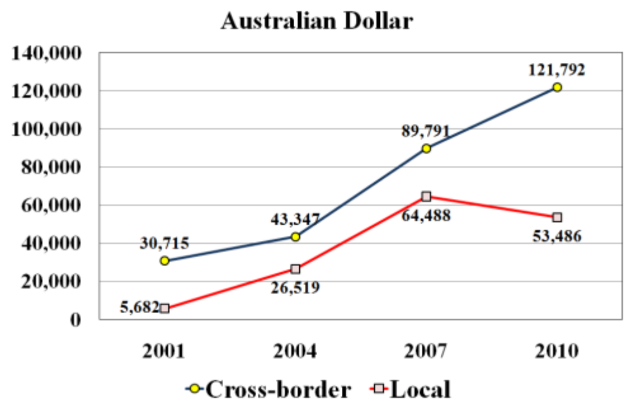
1) Mitigate global imbalance

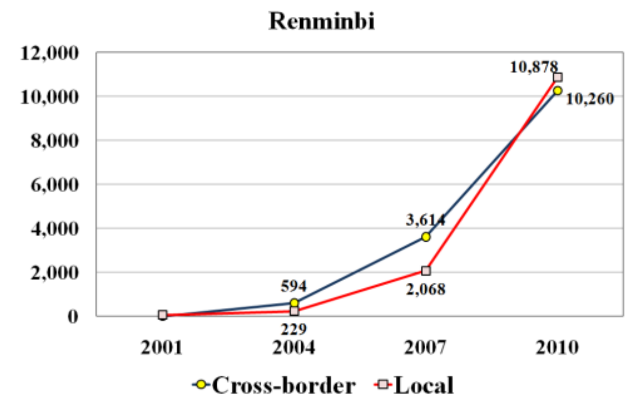
2) Prevent the recurrence of the crisis

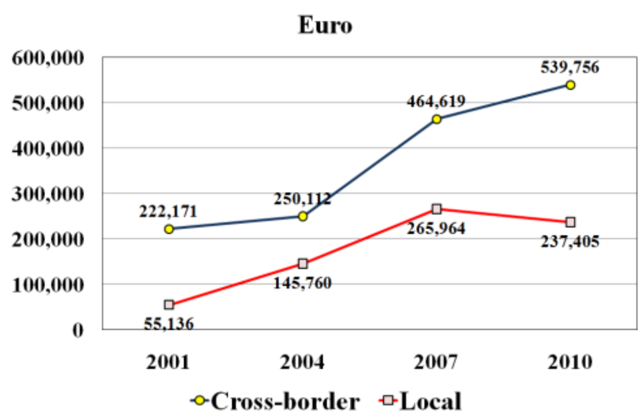
2. Definition of Local and Cross-border

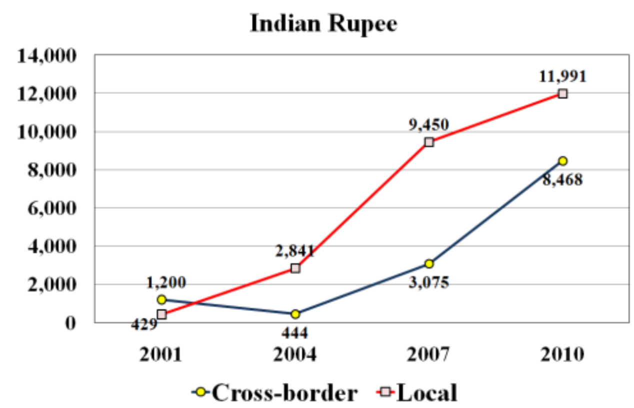
	BIS Triennial Central Bank Survey	BIS International and Domestic Securities Issuance
Local	FX Transaction between residents	Domestic issuance of local currency including foreign bond markets
Cross-border	residents-nonresidents, non-residents vs non-residents	Overseas issuance of local currency
Data Frequency	2001, 2004, 2007, 2010	2000~2010 (annual data)

3. Local vs cross-border FX Transaction (1)









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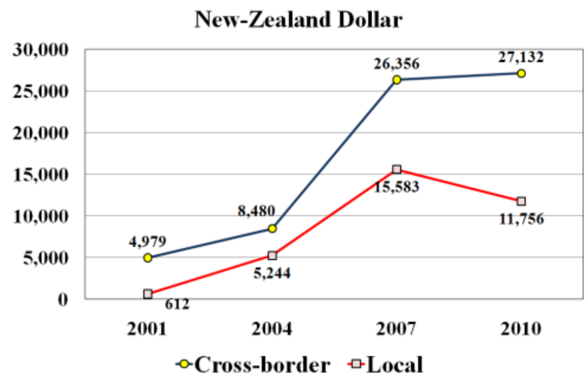
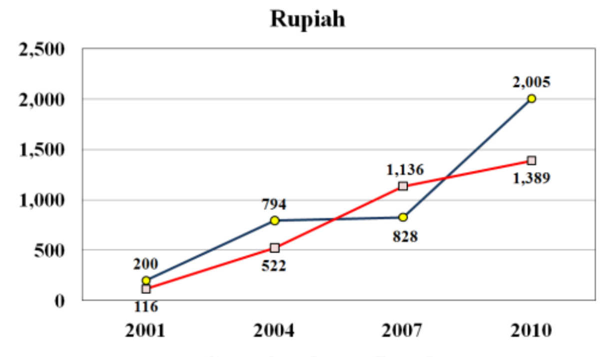
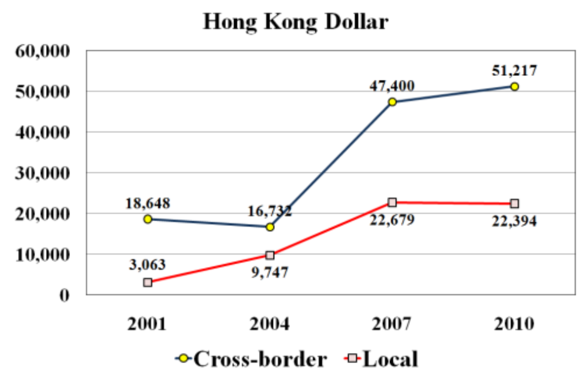
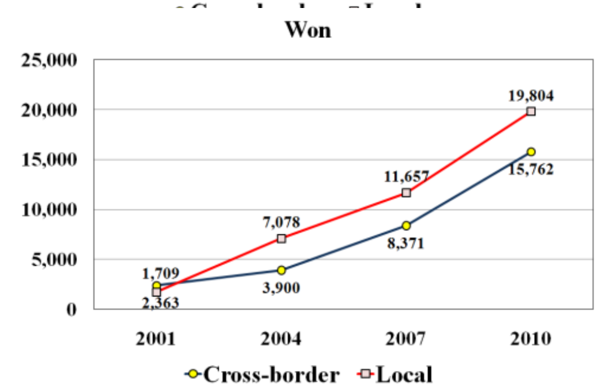
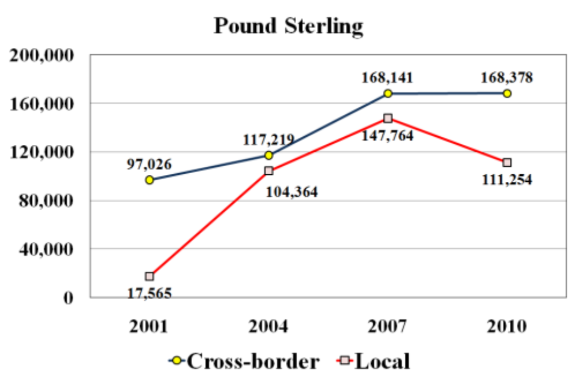
4. Local vs cross-border FX Transaction (2)

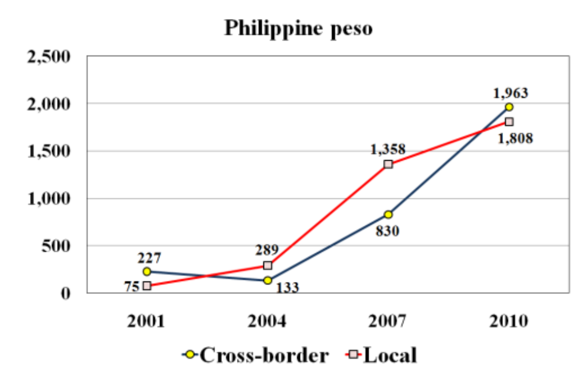












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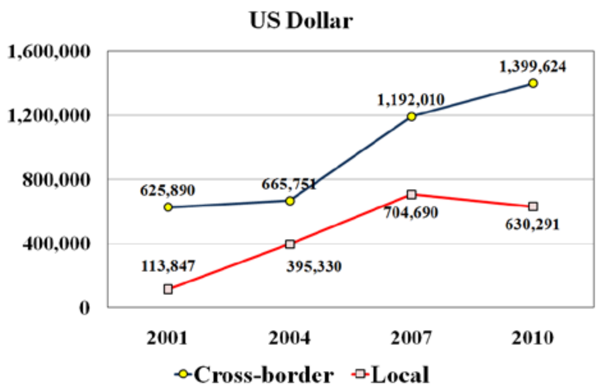
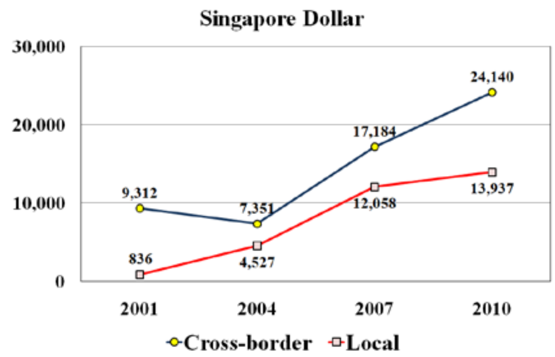
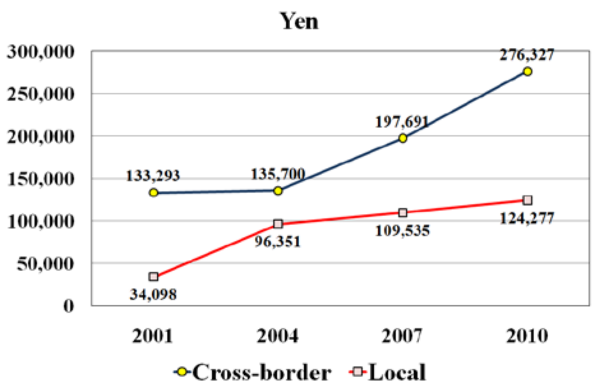
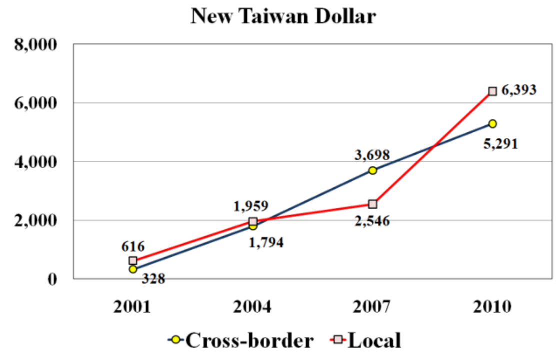
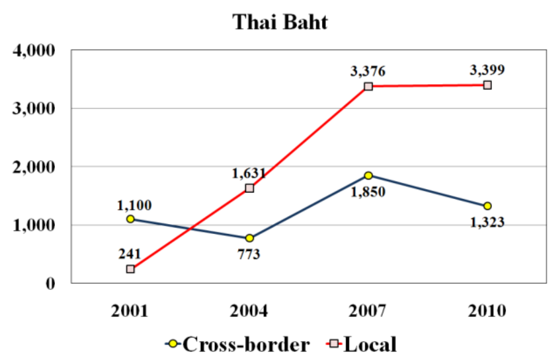
5. Local vs cross-border FX Transaction (3)











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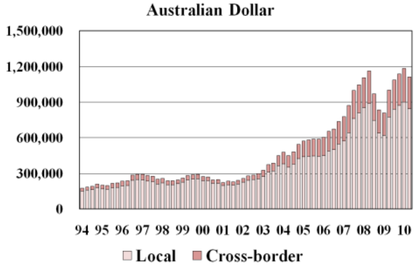
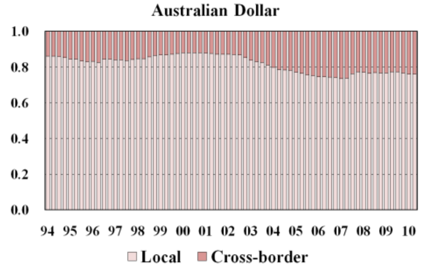
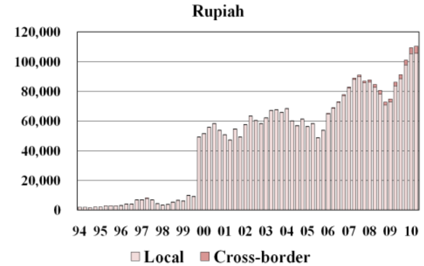
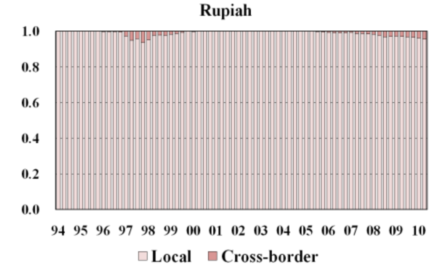
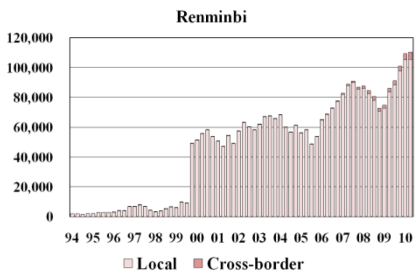
6. Local vs cross-border issuance of LCY Bond (1)

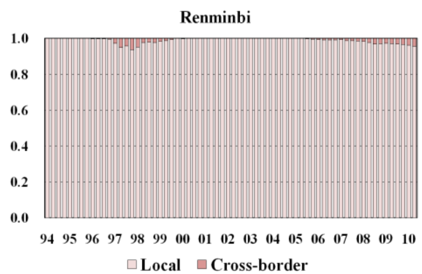


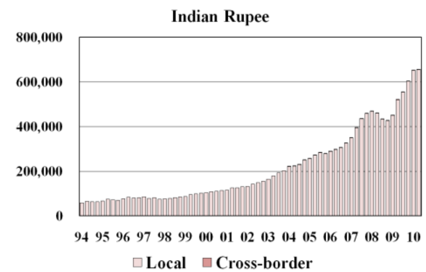


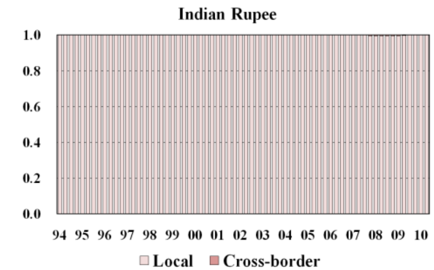


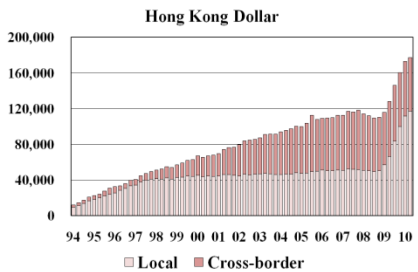


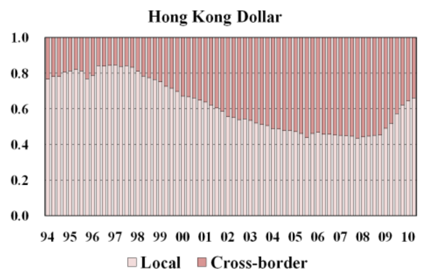


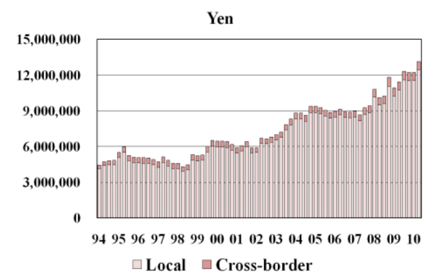


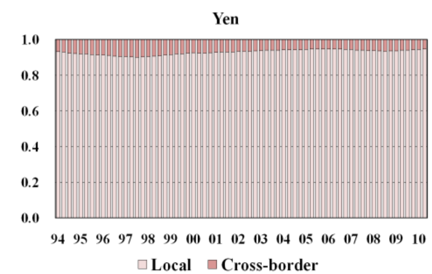




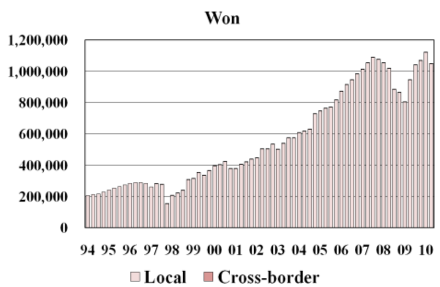


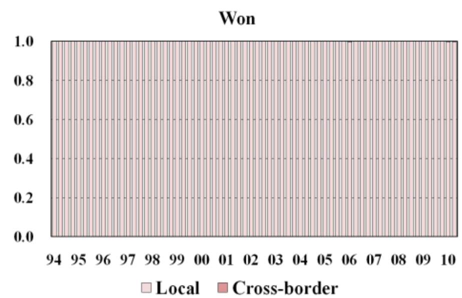


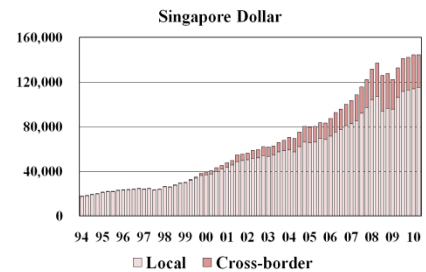


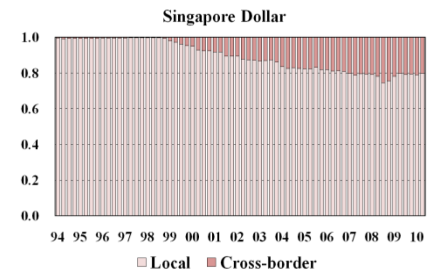


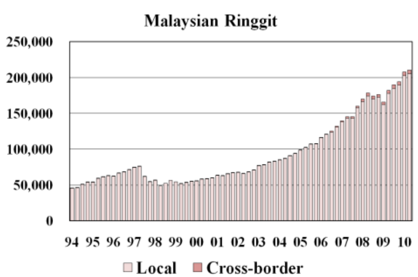
7. Local vs cross-border issuance of LCY Bond (2)

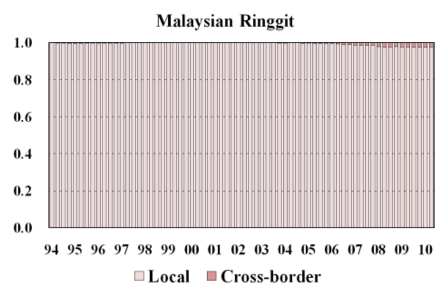


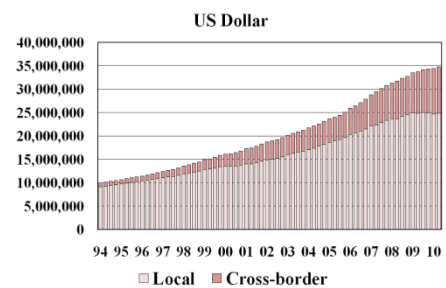


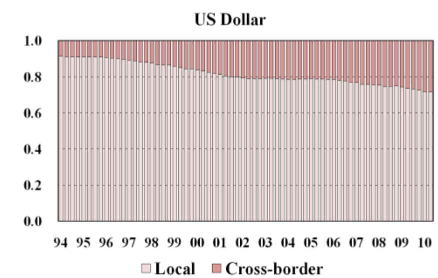


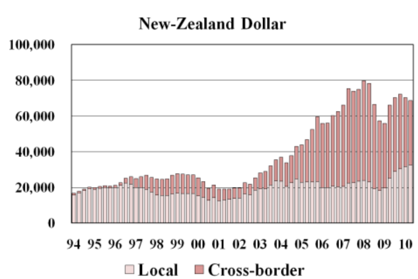


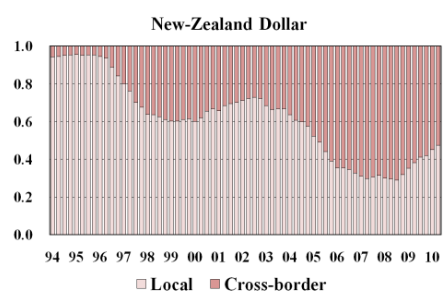












8. Offshore Market and Monetary Stability Issues

- **Fully convertible currencies in the region includes JP yen, HK dollar, SG dollar AU dollar, NZ Dollar and etc. Also there are other regional currencies with varying degrees of convertibility.**

- **Allowing offshore trading (use) of Asian local currencies can strengthen cross-border capital market functions and overcome barriers and impediments to cross-border investment and settlement given the heterogeneity in the region.**

- **A currency traded and settled on offshore market does not necessarily mean the international currency which is used as an international medium of exchange, unit of account and store value.**

- **However it is generally regarded that the offshore market could pose some risks to monetary stability through the speculative and hedging activities.**

9. Benefits/Costs of Offshore Currency Trading

Benefits	Costs
❖ Enhance the efficient capital allocation ❖ Deepen capital markets by facilitating liquidity and pricing securities efficiently ❖ Increase the issuing country's financial sector earnings (hosting regional financial center) ❖ Force the concerned authorities to maintain consistent macroeconomic policies to prevent major shifts in capital flows	❖ Reduce the ability of the authorities to conduct an independent monetary policy and thus a subsequent loss of control over macroeconomic conditions ❖ Destabilize the onshore foreign exchange market and financial markets due to the absence of regulation on the financial stability of the offshore markets ❖ Serve as a source of finance for speculation and hedging (arbitrage) activities

10. Restricting the offshore currency trading

- **Offshore currency trading in Asia usually is limited 1) to restrict non-resident convertibility, 2) to impose direct/indirect controls on/off-balance sheet transaction of financial institutions, and 3) to restrict domestic currency transactions of non-financial institutions in order to stabilize the currency.**

- **These regulations may have pushed some onshore business to offshore markets contrary to the original intention of the restriction.**

  (Offshore dollar bond market due to US Interest Equalization Tax and non-deliverable forward market)

- **They have adverse impacts on the development of domestic financial markets with lower liquidity and reduced depth of the spot, swap and forward exchange markets. Also they restrict financial innovation and consequently limit the ability of market participants to manage their financial risks.**

III. Empirical Results

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1. Empirical Model Specification

- **It is necessary to establish Asian cross-border bond markets where Asian local currency denominated bonds can be issued and traded to further develop Asian bond markets.**

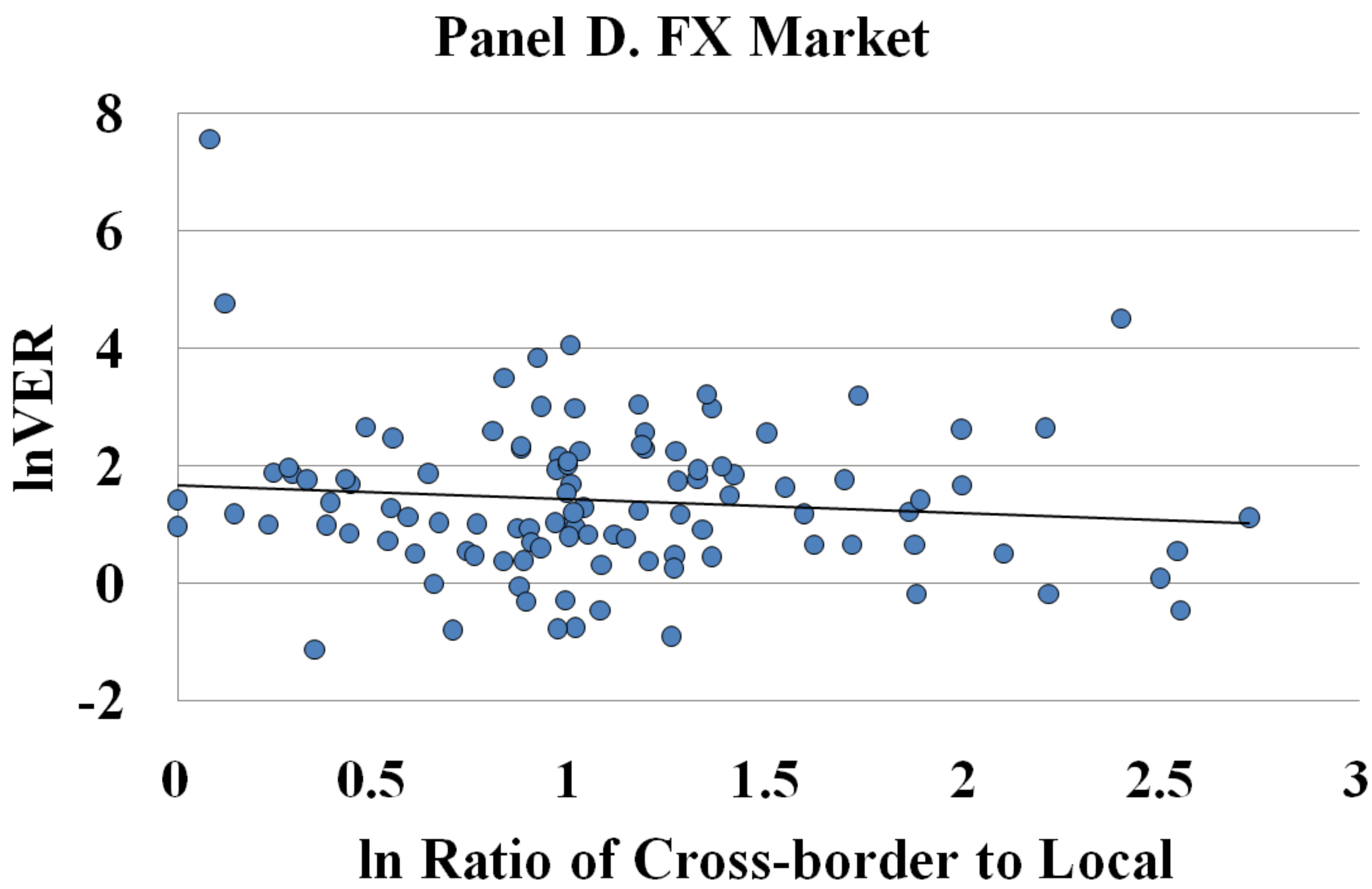
- **However policymakers have been reluctant to allow offshore trading of their currencies and overseas bond issuances because of concerns that these financial activities will lead to foreign exchange rate instability.**

- **Therefore, we empirically test whether cross-border transactions and overseas issuance of Asian local currency denominated bonds leads to instability in foreign exchange markets.**

  - Model 1: cross-border FX transaction → exchange rate volatility

  - Model 2: cross-border bond issuance → exchange rate volatility

2. Correlation between cross-border FX transaction and exchange rate volatility



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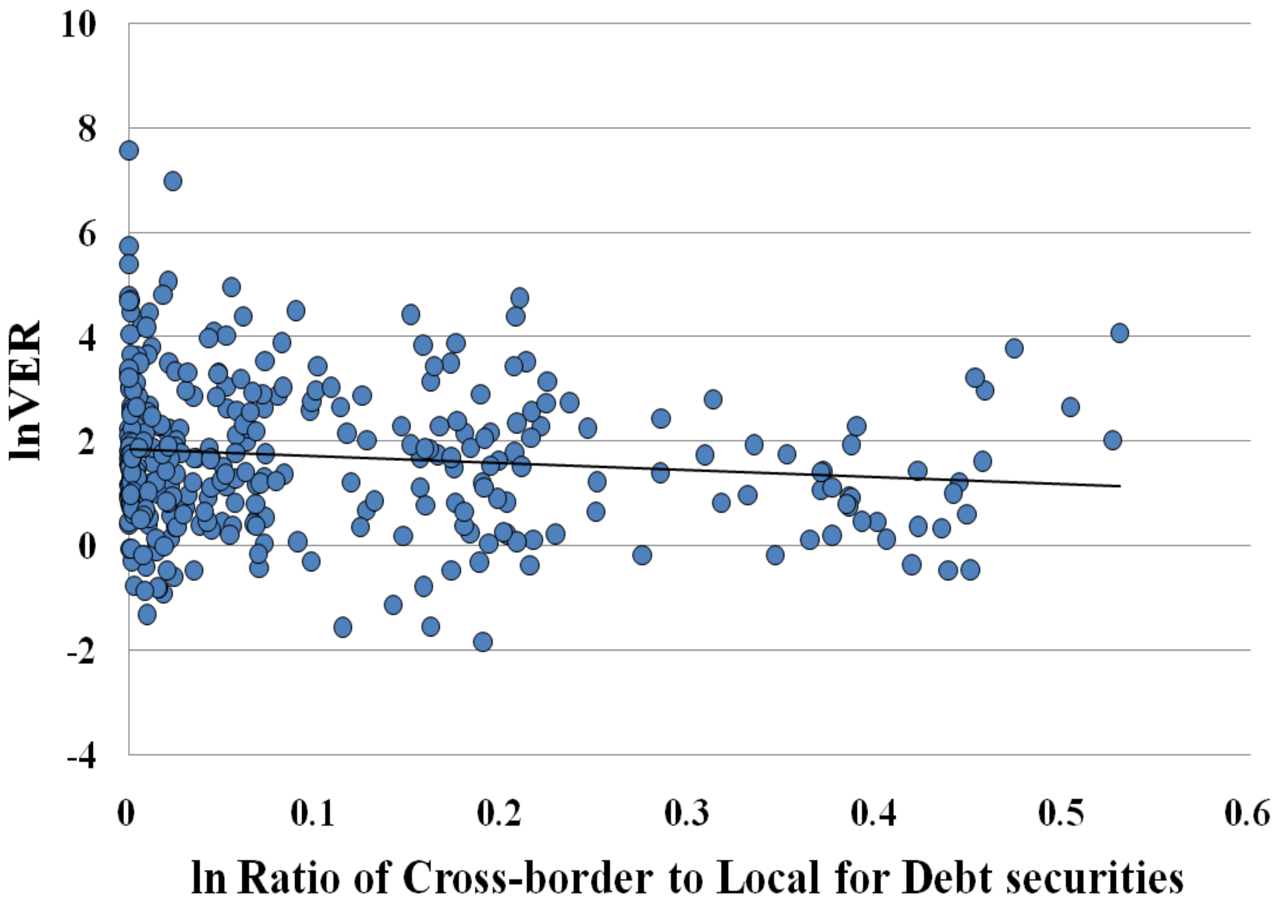
3. Empirical Results (Model 1)

Model Specification: $\ln VER_{i,t} = \alpha + \beta D_{i,t} + \phi_1 \ln GDP_{i,t} + \phi_2 \pi_{i,t} + \phi_3 \ln GD_{i,t} + u_{i,t}$

Variable	I	II	III	IV
Constant	1.8754 *** (0.4441)	23.2791 *** (5.7145)	23.0554 *** (5.3078)	21.3803 *** (5.4027)
Cross-border Transaction FX	-0.6996 *** (0.2163)	-0.9151 *** (0.2321)	-0.7258 *** (0.2318)	-0.7729 *** (0.2252)
GDP		-3.4977 *** (0.9279)	-3.5427 *** (0.8632)	-3.7113 *** (0.8517)
Inflation			0.0833 (0.021 ***	0.0764 *** (0.0[illegible]

4. Correlation between cross-border issuance of LCY bond and exchange rate volatility



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5. Empirical Results (Model 2)

Model Specification: $\ln VER_{i,t} = \alpha + \psi B_{i,t} + \phi_1 \ln GDP_{i,t} + \phi_2 \pi_{i,t} + \phi_3 \ln GD_{i,t} + u_{i,t}$

Variable	I	II	III	IV
Constant	2.3572 *** (0.4914)	16.6012 *** (4.5704)	16.2109 *** (4.4783)	9.4177 ** (4.4057)
Cross-border Bond Issuance	-0.8619 * (0.4399)	-0.8865 ** (0.4390)	-0.8686 ** (0.4312)	-0.7407 * (0.3802)
GDP		-2.3512 *** (0.7506)	-2.3192 *** (0.7355)	-2.3062 *** (0.6962)
Inflation			0.0472 *** (0.0164)	0.0291 * (0.0162)
Government Debt				1.2194 *** (0.2244)
Observation	330			

IV. How to Develop Asian Cross-border Bond Markets

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1. Sequence of Bond Markets Development in Asia

How can we establish an Asian common set of standards and regulations in Asia to promote a Cross-Border Inter-Regional Market in Asia?

- ABMF
- Asian SRO
- (Asian Supervisory Authorities)

2nd stage of ABMI

1st stage of ABMI

Eurobond Market

- Private Placement Market with common standard format
- Used to be a Self-regulated Market by professional market players

Cross-Border Inter-Regional (wholesale) Bond Market in Asia

- Harmonization of heterogeneous rules and regulations for professionals in Asian region
- Facilitate inter-regional circulation of savings within Asia
- Creation of self-regulated Asian Inter-Regional (wholesale) Bond Market for professional market participants
- Asian Exchange regulated market

Cross-Border Bond Markets (Foreign Bond Markets) Part of a Domestic Market

- Outward issuance by residents, inward issuance by non-residents and cross-border investments
- Subject to home country or host country rules and regulations
- Different stage of economic development and heterogeneity in legal and institutional systems and infrastructure

Japan – Samurai Bond
Korea – Arirang Bond
China – Panda bond

Local Bond Markets (Domestic Bond Market)

- Foster government bond market
- Create the benchmark yield curve
- Foster corporate bond markets
- Circulate domestic savings

Regional Market Infrastructure

Regional Settlement Intermediary (RSI)
Regional Guarantee System (CGIF)
Common Asian MTN Program

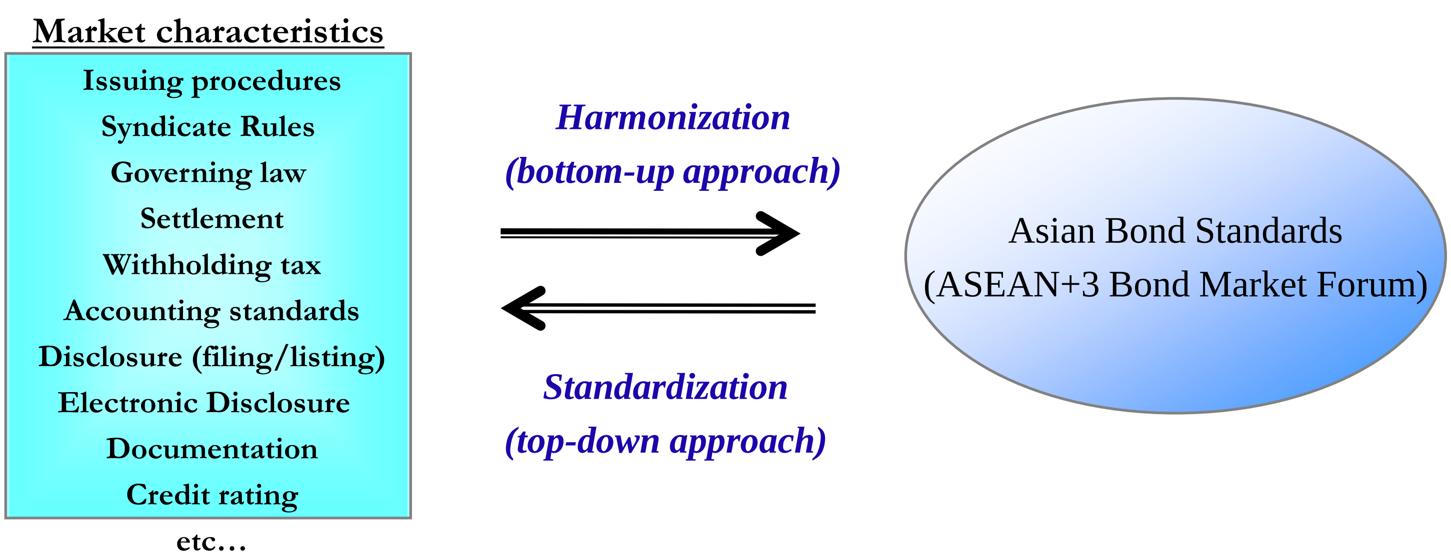
Domestic — **Heterogeneity** ⟷ **Inter-Regional** — **Homogeneity**

Source: Inukai & Hyun (2010)

2. Asian Bond Standard as a Common Platform

- Fragmented financial markets in Asia
  - different regulatory and legal systems
  - different stages of market development and economic size
  - different taxation, capital control and currency restriction etc.
- Asian common set of rules and standards
  - in line with global best practices
  - facilitate cross-border capital flows and financial integration

  ex) ASEAN and Plus Standards, Harmonization of Bond Standard in ASEAN+3



Source: Hyun & Inukai (2010)

3. How to Integrate Fragmented Bond Markets

- **First, the harmonization of standards in primary bond markets can be accomplished through an agreement of all participating countries to harmonize the regulations regarding bond issuance (ideal but very difficult).**

- **Second, the harmonization of primary bond markets can be also accomplished if participating countries enter an agreement under which each country recognizes the bonds issued and registered in other countries in the same as it recognizes its own registered bonds (ASEAN and Plus Standard).**

- **The third approach is to achieve harmonization through offshore markets. According to this approach, issuers from different countries are allowed to issue bonds in a common international bond market without registering them in their home countries (Asian version of Eurobond markets).**

4. Asian Common Cross-border Bond Market (1)

Issuers

Quasi-government Institutions

High-rating private companies

Professional Investors

Institutional investors

(banks, pension funds, insurance)

Asian Common Cross-border Bond Market for Professionals

- I. Offshore Market
- II. Private Placement
- III. Professional Market Players
- VI. Offshore Transaction of Domestic Currency

- Asian Currency Medium-Term Note Programme
- Self-regulation

Korea Capital Market Institute

5. Asian Common Cross-border Bond Market (2)

- **First, the market needs to be defined as offshore because coordination of national regulations is too difficult.**
- **Second, the market needs to be a private placement, which is based on peer to peer contract and not subject to a single country's jurisdiction, so as to avoid differences in disclosure rules and regulations across the region.**
- **Third, the participating scope of the market would be confined to professionals. It does not require full (strict) disclosure for the protection of retail investors.**
- **Fourth, it is necessary to relax capital flow controls for offshore transactions that would attract more global investors as well as regional investors. Currencies of countries participating in this offshore market should be partially liberalized to facilitate more intra-regional financial transactions and develop financial markets in the region.**

IV. Conclusion

Conclusion

- The recent global financial crisis convinced Asian countries of the need for regional financial integration and for a wider use of Asian local currencies in international trade and investment.

- As seen from offshore RMB trading in HK, authorities can relax the currency restriction to be traded offshore while effectively maintaining the control over capital flows.

- The empirical results also demonstrate that currency lowers the volatility of exchange rate and that foreign exchange rates are not affected by overseas bond issuances.

- Given the varying degree of FX control and currency restriction in the region and authorities' concerns about the offshore currency trading, one of ways for financial integration is to establish a common cross-border(offshore) bond market for professionals while somehow maintaining capital account control.

Thank you.