

# Financial Crisis and Bond Market Development in Asia: A Case Study of India and South East Asian Countries

**Prof. Shailendra Kumar Rai**  
Management Development Institute  
Gurgaon, India



# Bond Market

- Changing Landscape of contemporary organization
- Rapid Economic Growth of Asian Countries
- Financial Meltdown

# Global Bond Markets

- The size of the world bond market in 2008 was US\$83,529 billion, 137% of global GDP, more than two times from 60% in 1990 and up from 98% in 1999
- Corporate bond market constitutes 85 per cent of the total global GDP

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## .....Global Bond Markets

- The total outstanding amounts of debt securities issued by Asian countries in both local and international capital markets has increased rapidly to reach \$ 304 billion at the end of March 2009 of which a slightly more than two-thirds of the total outstanding amount issued by only five countries, i.e., Korea, Malaysia, Indonesia, Philippines and Thailand.
- Together, however, emerging bond markets account for just 3.04 per cent of the global bond market of which Asia accounts for only 1.88 per cent in 2008

## .....Global Bond Markets

- Compared with other regions, emerging Asia has issued less international bonds and more government bonds in local markets, but not so dominating, and a large private sector share. The composition of Asian bond markets is thus similar to that of mature bond markets.

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## .....Global Bond Markets

- In terms of the size of domestic bond markets relative to GDP, Asia is around 54.29%, of which the corporate sector is about 23.5%.
- By contrast, the U.S bond market is about 212% of its GDP and the corporate market is about 157.6 per cent.
- Germany's corporate bond market is about 104 per cent of GDP, while Japan's is over 48.1 per cent of GDP.

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## .....Global Bond Markets

- In 1997, local bond markets supply less than 3% of the funds raised by Asian entities in all local and international loan, bond and equity markets. In 2008, the share of local bond markets rose to 23% of total financing.
- Asian local bond markets have become an important source of funding for both public and private sectors

## .....Global Bond Markets

- In Asia, the largest corporate bond markets are in Korea and Malaysia and account for together about half of the raised by the corporate bond market. As a percentage of GDP in 2008 bank assets, stock market capitalization and bond market accounted for 132%, 60%, 54% respectively
- After the Asian crisis, the bond market has taken on a much more important role which was limited before the Asian crisis in 1997

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## .....Global Bond Markets

- However, despite their relatively rapid development, Asian local bond markets still somewhat underdeveloped by the standards of mature markets-even though there is a wide regional variation in terms of size, depth, liquidity and sophistication

# Indian Bond Market

- Since 1996, India's stock market capitalization as a percentage of GDP has risen to 108% from 32.1 %, while the banking sector's ratio to GDP jumped to 78.2% from 46.3% in 2008.
- On the contrary, bond markets grew to a humble 43.4% of GDP from 21.3%. India's government bond market, at 38.3% of GDP, stands ahead of most emerging East Asian markets, with the need to finance a large fiscal deficit stimulating issuance activity. Corporate bonds, however, accounted for only 3.2 per cent of GDP.

## .....Indian Bond Market

- In absolute terms, the total outstanding volume of government bonds in India stood at \$364 billion, behind only China and South Korea (ADB, 2008). However, the dominance of the private placement market in India, its corporate bond market development lagged most emerging East Asian countries

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## .....Indian Bond Market

- Thus, the corporate bond markets in India remain undeveloped, despite government efforts, in scale in comparison with corporate bond markets in the most developed and developing countries
- India like other Asian economies has had a bank-dominated financial system with the corporate sector served relatively inadequately by the domestic capital market. The corporate sector has been borrowing capital more effectively from domestic banks and financial institutions but with a harshly rising share of loans raised from abroad.

# Why India with Asian Economies

- The growth of corporate sector in India and its contribution to the global economy needs corporate financial services which provides huge potential for Asian economies to offer both primary and higher value added products and services effectively

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## .....Why India with Asian Economies

- India also needs an increasingly integration into the network of international financial centers in general and Asian financial centers in particular. The connectivity between financial centers of develops countries and Asian countries in particular will be an important supports to the efficient use of capital. Efficient capital markets ensure resources are well directed to sustainable development

# Objective

- The research work is an attempt to highlight the impact of global financial meltdown on Asian bond market as compared to the impact of Asian crisis on bond markets of Asian economies
  - Precisely, the research work has tried (a) to trace out the impact of recent financial crisis on the bond market and (b) to analyze and present the difference between the impact of recent financial crisis and Asian crisis on bond markets

# Research Questions

- What are the benefits through financial market diversification and interest rate convergence for Asian countries?
- What has been the impact of global financial meltdown on Asian currencies as compared to Asian Financial crisis?
- Is it possible to create a regional bond market?
- What are challenges and opportunities associated with the creation of a vibrant Asian bond market?



# Methodology

- The financial data used in the study are secondary in nature and have been compiled mainly from the published reports of the IMF, International Financial Statistics, research papers, articles as well as reliable web sources
- Monthly data from prior to the Asian crisis through to the early stages of the current global financial crisis, and also after the crisis till February, 2010 are used for the analysis

# Coverage of the Study

- The study covers a ten-year period beginning from 2010. Therefore, the analysis of bond markets of Asian economies including India, covers the period 2001-10 in respect of the principal objective of this study. The analysis of the 1990-00 period is also covered, however, relatively brief in nature

# Importance of the Study

- The study will fill up the gap in the literature on why the integrated bond market should be developed?
- It will also be helpful for policy makers to draw a road map for developing an efficient and vibrant regional corporate bond market

# Limitations of the Study

- Though this study has measured the impact of Asian crisis as well as global crisis on Asian markets, however the underlying reasons for no significant impact on the economies has not been explored qualitatively

# Table 1: Average Nominal Interest Rates, Inflation Rates and ex post Real Interest Rates 1994-2010

1994-2000				2000-08		
Panel A: Government Bond Rates						
	Interest Rate	Inflation Rate	Real Rate	Interest Rate	Inflation Rate	Real Rate
Malaysia	-	-	-	3.85	2.4725	1.3775
Japan	2.09	0.28	1.81	1.44	-0.064	1.5038
Philippines	-	-	-	9.27	5.6513	3.6188
Thailand	11.08	4.28	6.8	4.96	2.9725	1.9875
USA	6.01	2.53	3.48	4.59	2.835	1.755
Korea	-	-	-	5.77	3.15	2.62
Germany	6.66	2.47	4.19	4.13	1.7688	2.3613
Korea	-	-	-	5.25	3.2625	1.9875

# Panel B: Treasury Interest Rates

	1994-2000			2000-08		
	Interest Rate	Inflation Rate	Real Rate	Interest Rate	Inflation Rate	Real Rate
Japan	-	-	-	0.18	-0.064	0.2438
Singapore	1.2	1.28	-0.08	1.6	1.6063	-0.006
Thailand	-	-	-	2.65	2.9725	-0.323
Hong Kong	-	-	-	1.96	0.2025	1.7575
Philippines	11.4	7.16	4.24	6.64	5.6513	0.9887
Malaysia	4.9	3.35	1.55	2.9	2.4725	0.4275
USA	4.9	2.53	2.37	3.01	2.835	0.175
India	-	-	-	-	-	-
Germany	5.43	2.47	2.96	2.62	1.7688	0.8513

# Panel C: Money Market Interest Rates

	1994-2000			2000-08		
	Interest Rate	Inflation Rate	Real Rate	Interest Rate	Inflation Rate	Real Rate
Japan	0.7	0.28	0.42	0.17	-0.064	0.2338
Singapore	3.24	1.28	1.96	1.89	1.6063	0.2838
Thailand	7.97	4.28	3.69	2.51	2.9725	-0.463
Hong Kong	-	-	-	2.43	0.2025	2.2275
Philippines	-	-	-	7.72	5.6513	2.0688
Malaysia	5.47	3.35	2.12	2.96	2.4725	0.4875
USA	5.2	2.53	2.67	3.27	2.835	0.435
India	-	-		13.42	5.0525	8.3675
Indonesia	19.92	14..6	5..56	9.2	9.5238	-0.324
Korea	-	-	-	4.3	3.15	1.148
Germany	-	-	-	3.07	1.7688	1.3013

**Table—2: Standard Deviations of Currencies and a GDP-weighted Currency Basket (Monthly percentage changes in exchange rates, 1990-2010, Feb.)**

<b>With respect to US\$ (without India)</b>				
	<b>1990-2000</b>	<b>SD (2001-10)</b>	<b>SD (2001-05)</b>	<b>SD (2006-10)</b>
Indonesia	10.11	3.67	3.63	3.75
Malaysia	3.3	0.94	0.2	1.36
Philippines	3.27	1.58	1.42	1.75
Singapore	1.72	1.26	1.16	1.36
Thailand	4.1	1.67	1.47	1.88
Hong Kong		0.14	0.14	0.14
<u>BASKET[1]</u>	4.01	3.53	3.49	3.61
F-TEST	1.29		1.06995	
P VALUE	0.08		0.39	



**Table—2a: Standard Deviations of Currencies and a GDP-weighted Currency Basket (Monthly percentage changes in exchange rates, 1990-2010, Feb.)**

With respect to US\$ (with India)			
	<b>SD (2001-10)</b>	<b>SD (2001-05)</b>	<b>SD (2006-10)</b>
Indonesia	3.67	3.63	3.75
Malaysia	0.94	0.2	1.36
Philippines	1.58	1.42	1.75
Singapore	1.26	1.16	1.36
Thailand	1.67	1.47	1.88
Hong Kong	0.14	0.14	0.14
India	1.72	0.92	2.35
<u>BASKET[1]</u>	3.22	3.16	3.32
F-TEST	1.1		
P VALUE	0.35		

**Table—2b: Standard Deviations of Currencies and a GDP-weighted Currency Basket (Monthly percentage changes in exchange rates, 1990-2010, Feb.)**

<b>With respect to Euro (without India)</b>			
	<b>SD (2001-10)</b>	<b>SD (2001-05)</b>	<b>SD (2006-10)</b>
Indonesia	3.48	3.55	3.44
Malaysia	2.28	2.57	1.9
Philippines	2.68	2.72	2.63
Singapore	1.71	1.79	1.6
Thailand	2.29	1.91	2.66
Hong Kong	2.44	2.33	2.58
BASKET	3.37	3.42	3.33
F-TEST	1.05		
P VALUE	0.42		

**Table—2c: Standard Deviations of Currencies and a GDP-weighted Currency Basket (Monthly percentage changes in exchange rates, 1990-2010, Feb.)**

<b>With respect to Euro (with India)</b>			
	<b>SD (2001-10)</b>	<b>SD (2001-05)</b>	<b>SD (2006-10)</b>
Indonesia	3.48	3.55	3.44
Malaysia	2.28	2.57	1.9
Philippines	2.68	2.72	2.63
Singapore	1.71	1.79	1.6
Thailand	2.29	1.91	2.66
Hong Kong	2.44	2.33	2.58
India	2.56	2.52	2.64
BASKET	3.12	3.17	3.08
F-TEST	1.05		
P VALUE	0.41		

**Table—2d: Standard Deviations of Currencies and a GDP-weighted Currency Basket (Monthly percentage changes in exchange rates, 1990-2010, Feb.)**

<b>With respect to Yen (without India)</b>			
	<b>SD 2001-10</b>	<b>SD (2001-05)</b>	<b>SD (2006-10)</b>
Indonesia	4.32	3.68	5.01
Malaysia	2.5	2.22	2.81
Philippines	2.79	2.4	3.22
Singapore	2.13	1.62	2.62
Thailand	2.42	1.56	3.16
Hong Kong	2.34	2.16	2.51
BASKET	4.2	3.56	4.89
F-TEST	1.88		
P VALUE	0.009		

**Table—2e: Standard Deviations of Currencies and a GDP-weighted Currency Basket (Monthly percentage changes in exchange rates, 1990-2010, Feb.)**

With respect to Yen (with India)			
	SD 2001-10	SD (2001-05)	SD (2006-10)
Indonesia	4.32	3.68	5.01
Malaysia	2.5	2.22	2.81
Philippines	2.79	2.4	3.22
Singapore	2.13	1.62	2.62
Thailand	2.42	1.56	3.16
India	2.99	1.99	3.84
Hong Kong	2.34	2.16	2.51
BASKET	3.95	3.27	4.66
F-TEST	2.03		
P VALUE	0.004		



Questions?





**Thank You**

