

Financial Integration and Bond Market Development in East Asia

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Outline

- I. Key Issues
- II. Financial Market Deepening in East Asia
- III. Financial Market Integration in East Asia
- IV. Asian Bond Market Development
- V. Recent Policy Initiatives
- VI. Challenges Ahead

I. Key Issues

- One of the problems behind the Asian financial crisis of 1997-98 was Asia's weak financial system.
- Since the crisis, the East Asian economies have begun efforts to strengthen their financial systems and develop local-currency bond markets.
- Asian financial markets have been deepening in terms of size, and regulatory and market infrastructure.
- Asian financial market integration has been advancing but remains limited.
- What is the current state of Asian Bond Markets Initiative (ABMI)?
- What are the challenges ahead?



II. Financial Market Deepening in East Asia

1. International Benchmarking Analysis

- Cross-country analysis of financial deepening—in the banking sector, equity markets and bond markets (for government bonds and corporate bonds)—vs. per capita GDP for 46 countries, including OECD and emerging market economies.
- The regression analysis can indicate the extent of financial deepening that has taken place between 1995-1997 and 2002-2004, both for the world and for East Asia.
- The analysis allows international comparison relative to the international benchmark or international norm.

Figure 1-a Financial Markets Deepening
(2002-2004 Average)

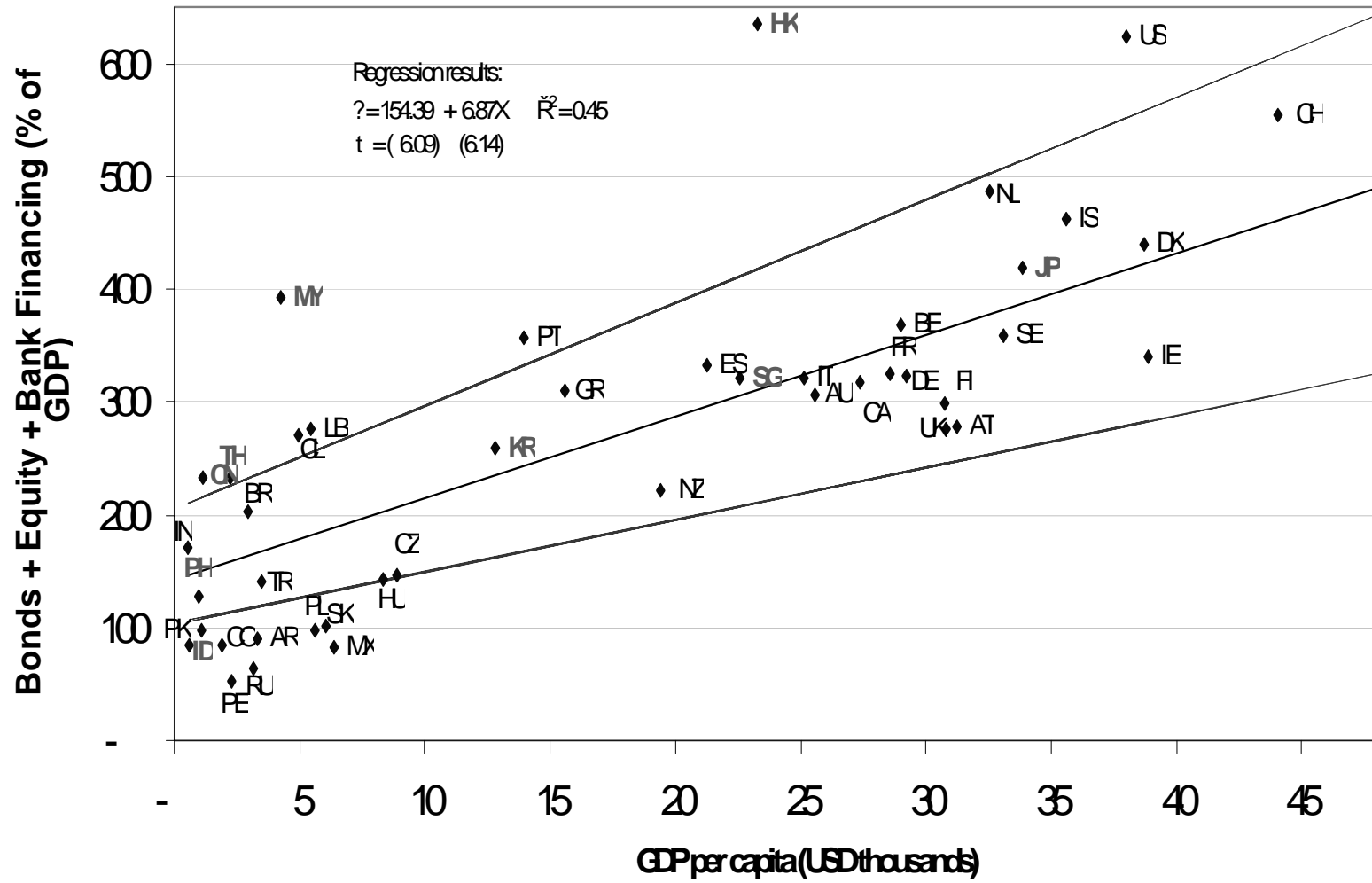


Figure 2-a. Banking Sector Deepening
(2002-2004 Average)

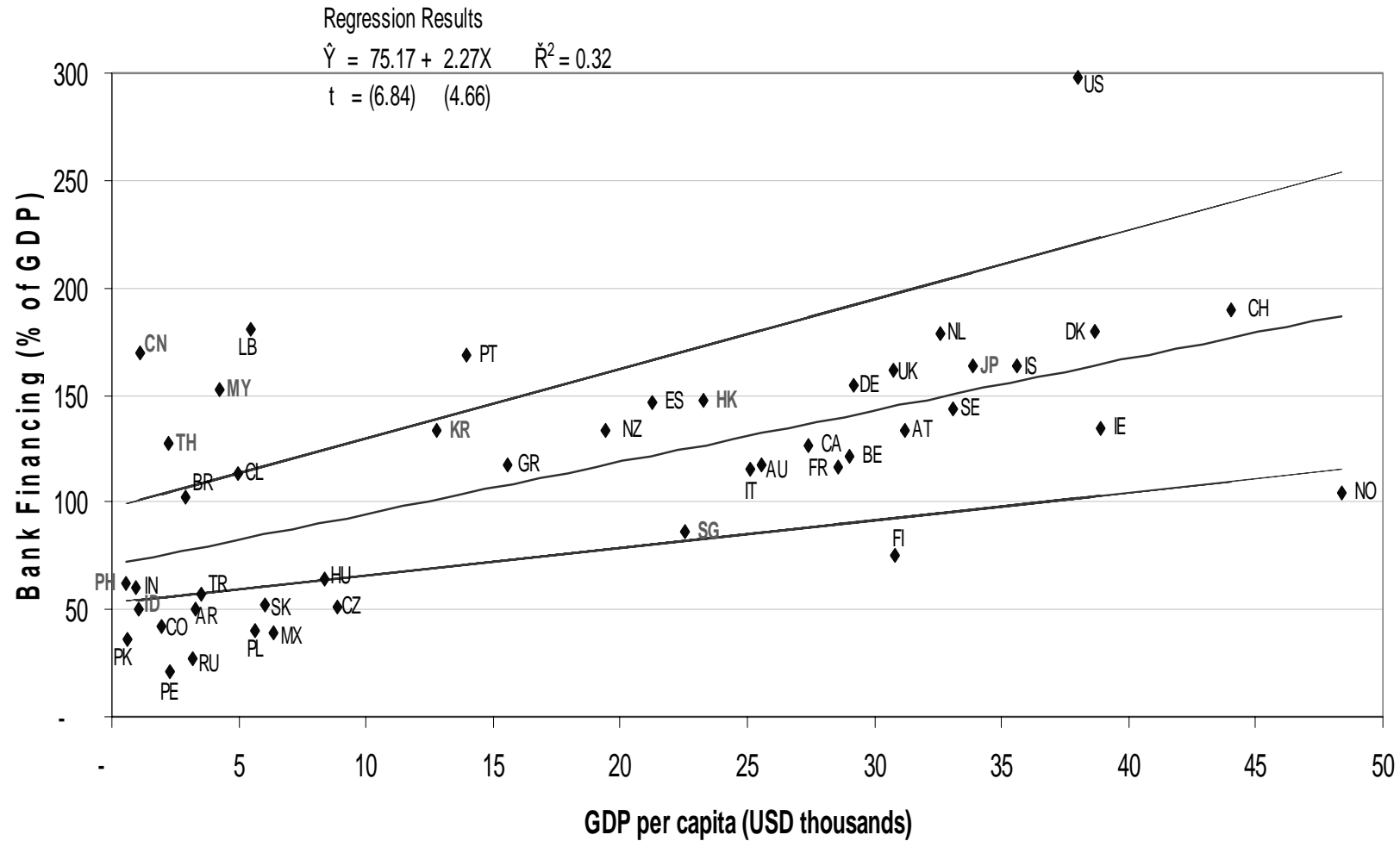


Figure 3-a. Capital Markets Deepening
(2002-2004 Average)

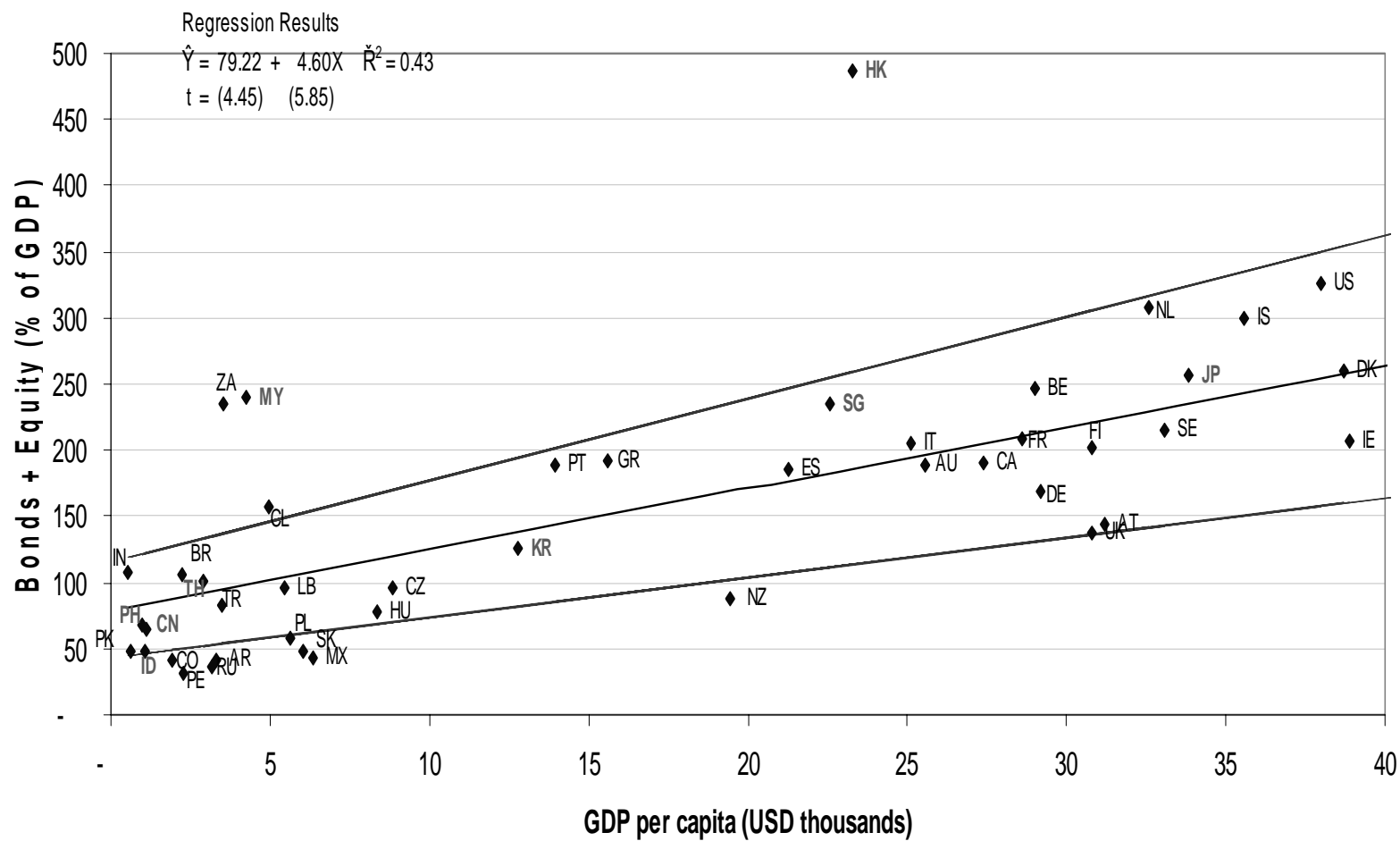


Figure 5-a. Equity Market Deepening
(2002-2004 Average)

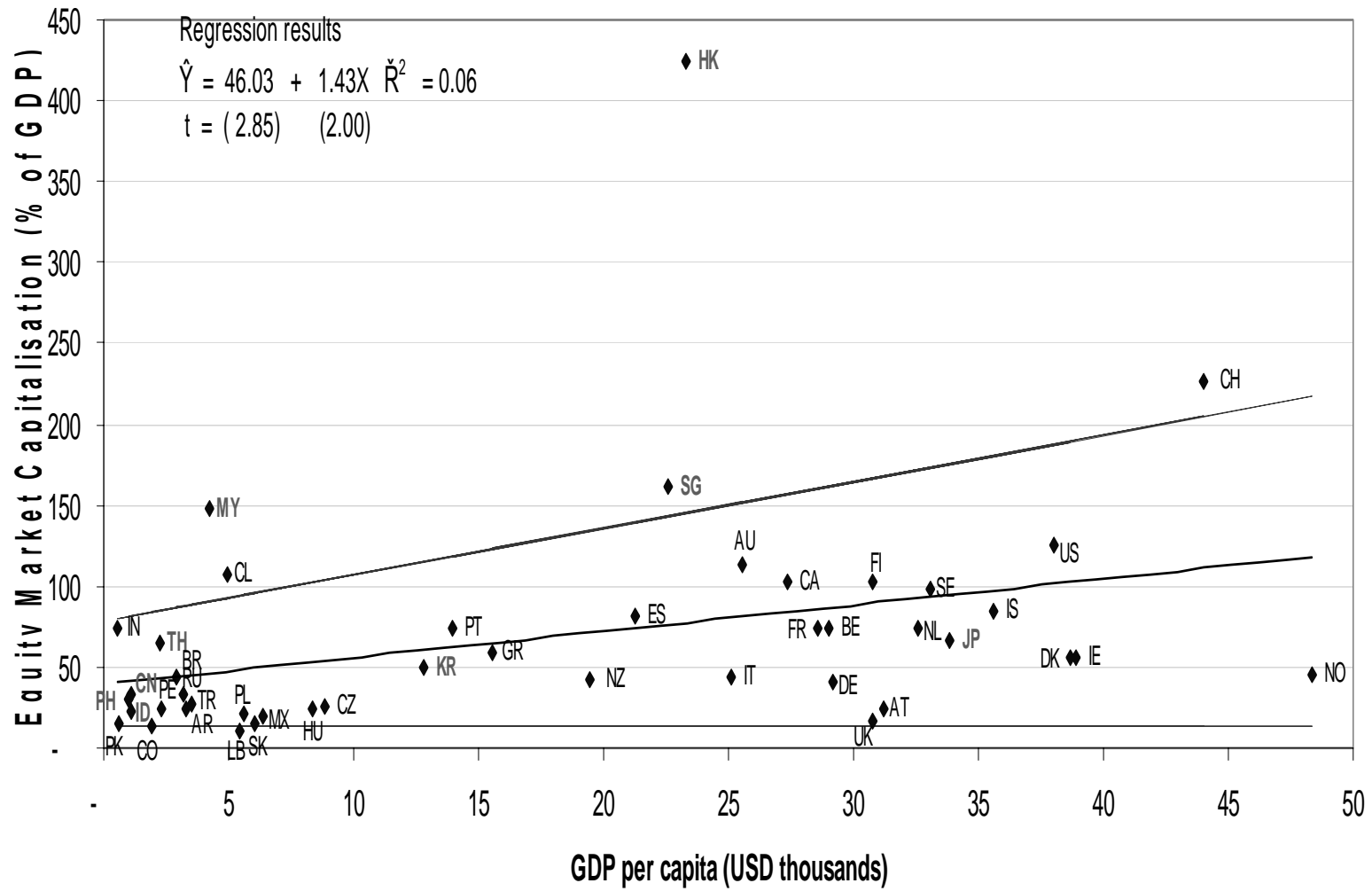


Figure 6-a. Bond Market Deepening
(2002-2004 Average)

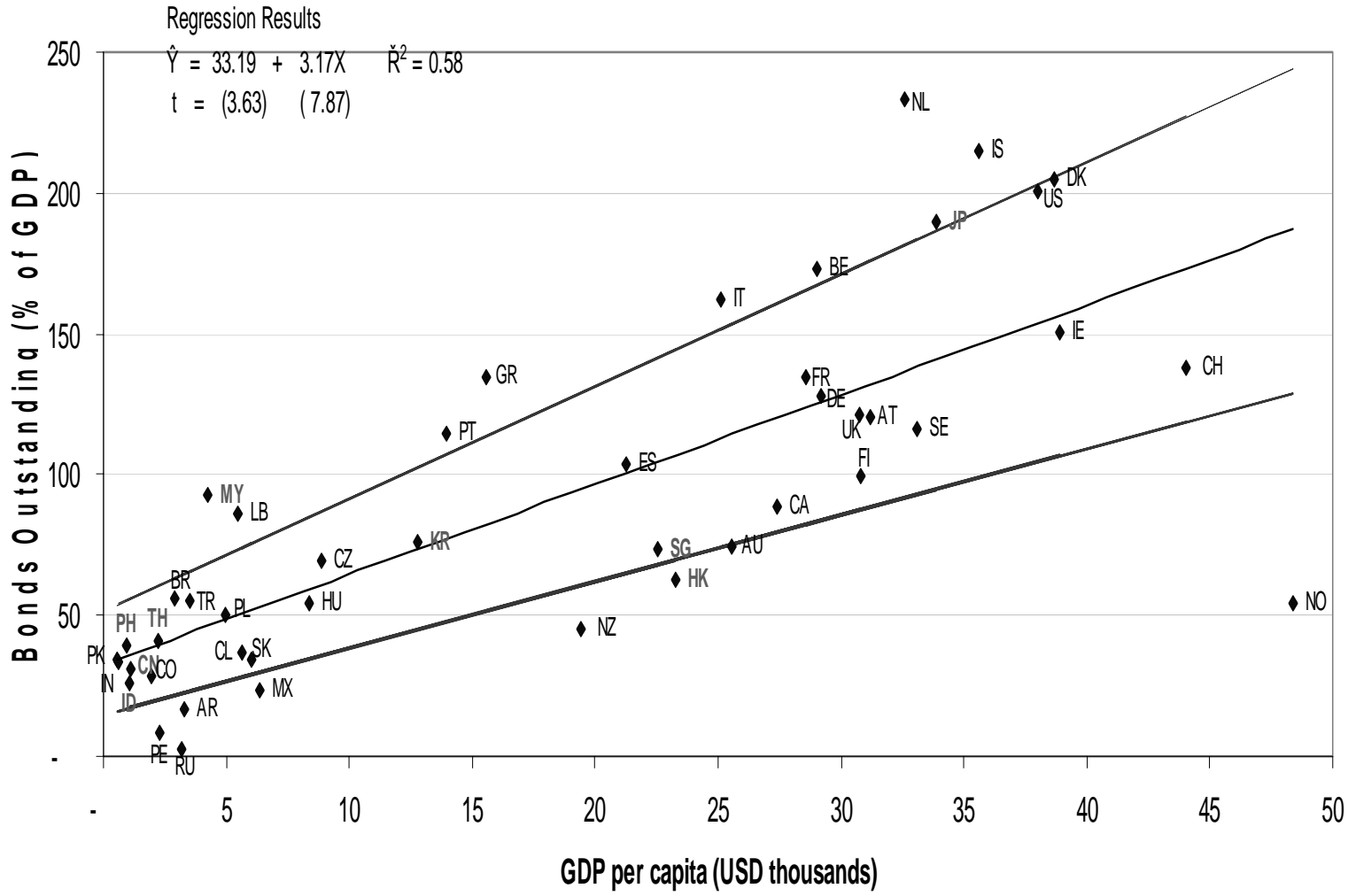
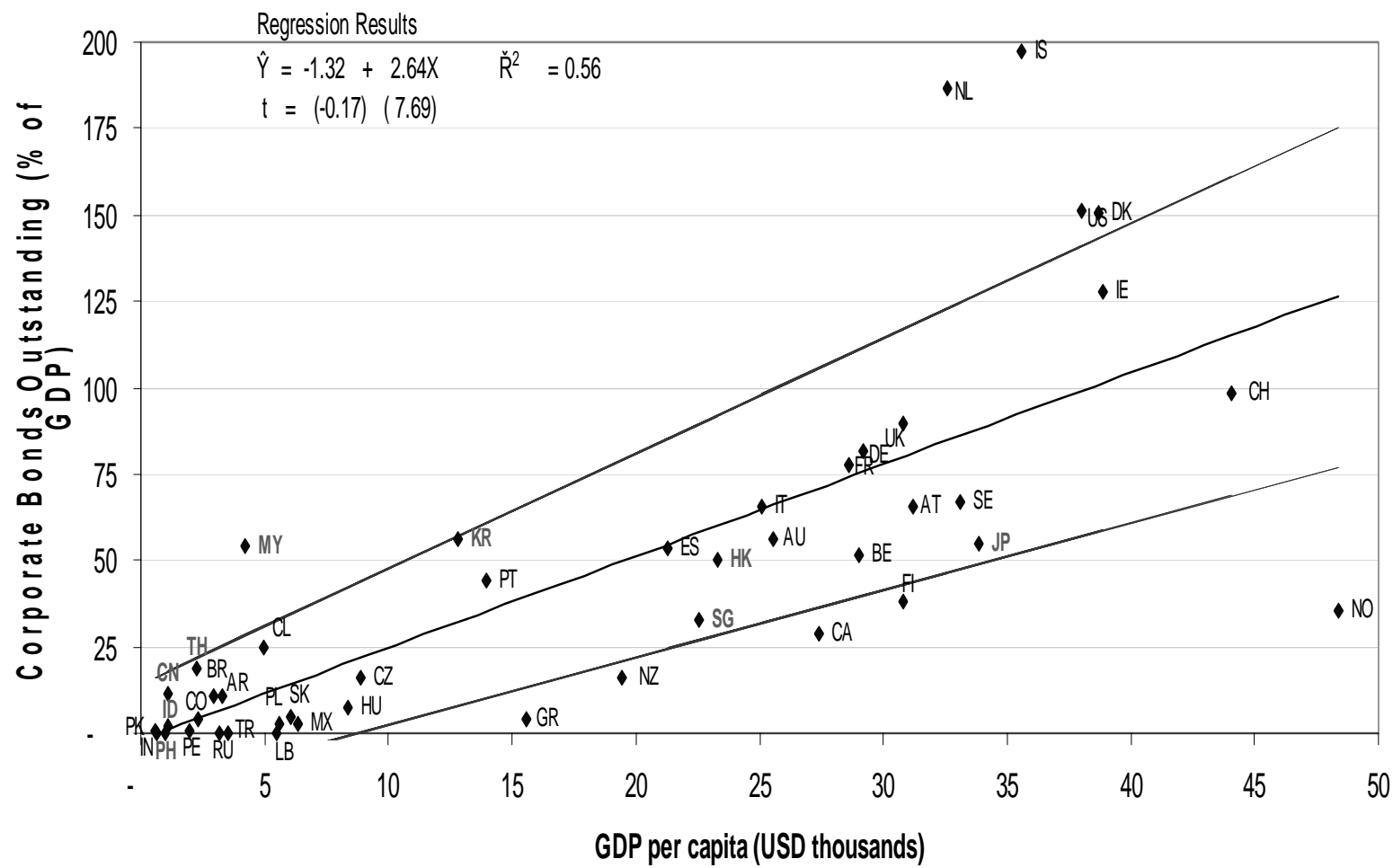


Figure 8-a. Corporate Bond Market Deepening
(2002-2004 Average)



II. Financial Market Deepening in East Asia

2. Major Findings

- Over time, at the global level, financial deepening has taken place—upward shifts in the intercepts and slopes.
- Emerging East Asia (EEA) is generally outperforming other parts of the world in the pace of financial deepening.
- The strength of most East Asian economies are in the banking sector as well as in the equity market.
- Bond market deepening is less impressive than its banking sectors and equity markets, with only Malaysia showing above-average performance. Nonetheless, bond markets—particularly corporate bond markets—have been deepening well over time relative to the international benchmark.
- EEA's financial sector is still unbalanced in favor of banks, but so are most economies.

II. Financial Market Deepening in East Asia

3. Policy Implications

- Economies that are below the international benchmark in financial market deepening have to work harder to expand market size through appropriate policy measures—Philippines.
- Economies that are above the international benchmark in financial market deepening have to work hard as well to improve the “quality” of the market—Malaysia and Korea.
- There is still room for emerging East Asia’s bond market to deepen and develop.

III. Financial Market Integration in East Asia

1. Financial Integration

- Financial integration has progressed in East Asia through financial market liberalization and opening, as well as through capital account liberalization, as part of the general trend of financial globalization
- Despite the progress on market-driven financial development, the degree of financial integration remains low in East Asia
- The degree of market opening and capital account liberalization varies across countries

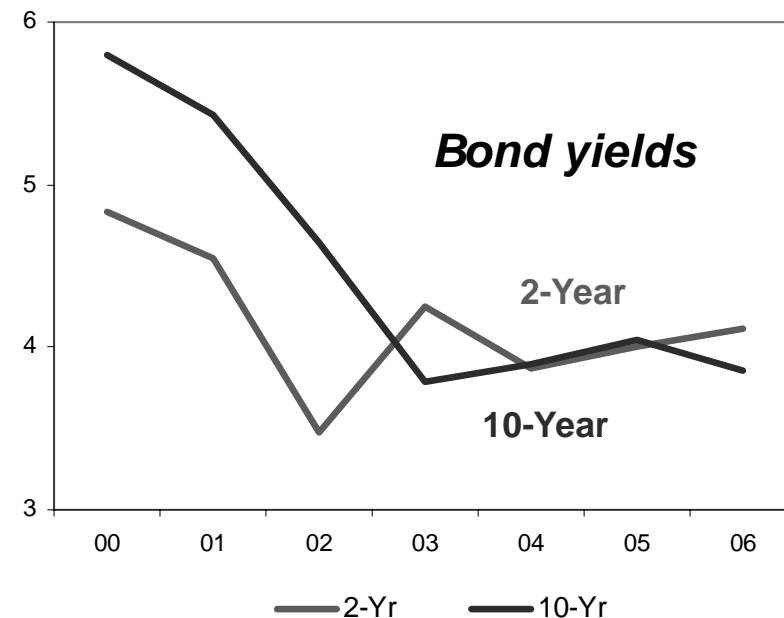
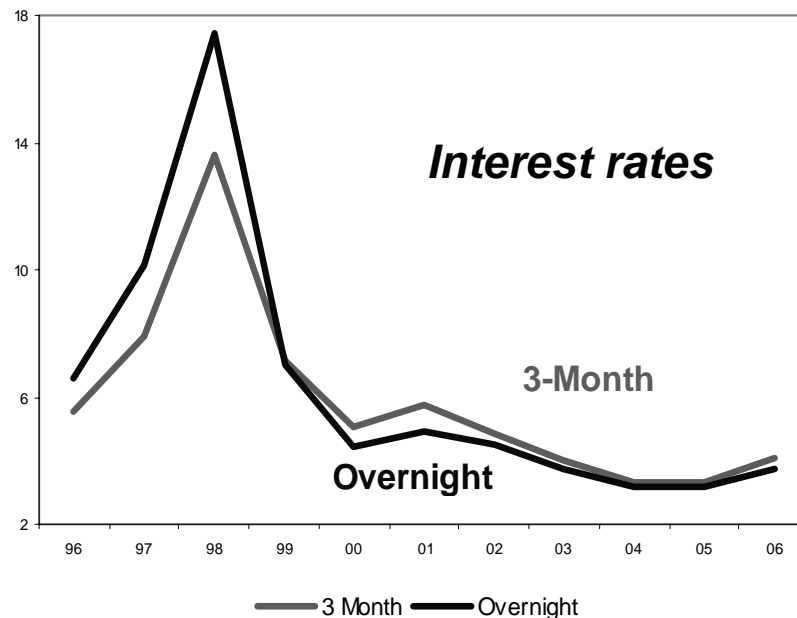
III. Financial Market Integration in East Asia

2. Data Analysis

- Cross-market differentials in interest rates and bond yields are declining
- Cross-market co-movements in money and bond markets are increasing
- Nonetheless, cross-market differentials in interest rates and bond yields are still significant
- East Asian equity markets are more integrated than money or bond markets
- Intra-regional cross-border portfolio investment is growing, but remains small relative to the region's total cross-border portfolio flows

Cross-market differentials in interest rates and bond yields are declining

Average Absolute Cross-Market Differentials



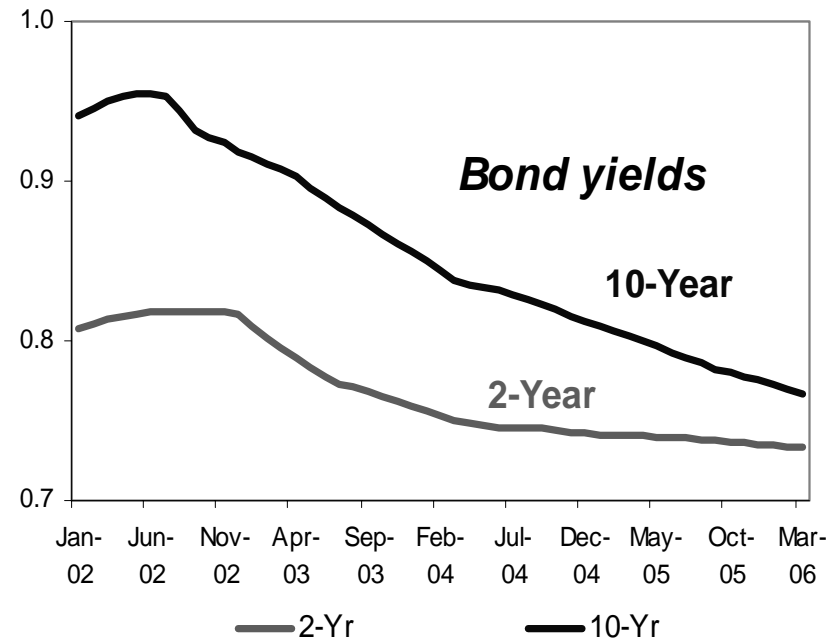
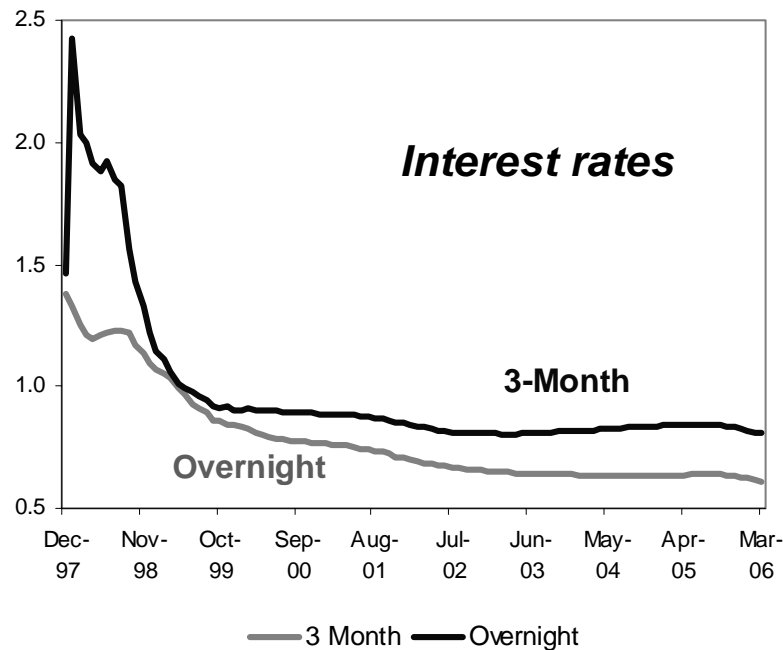
Source: Bloomberg LP and Datastream
Note: Data for 2006 as of end-March

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Cross-market co-movements in money and bond markets are increasing

Average Absolute Distance of Beta Coefficients from Unity

(in percentage points)



Source: Bloomberg LP and Datastream



Correlation of stock returns among East Asian countries

Sample period: January 2002 - March 2006

	PRC	INO	KOR	MAL	PHI	SIN	THA	JPN	HKG	USA
PRC	1.00	-0.05	0.11	0.29	-0.22	-0.09	0.01	0.07	0.25	0.04
INO		1.00	0.33	0.31	0.52	0.39	0.31	0.31	0.26	0.28
KOR			1.00	0.39	0.33	0.57	0.39	0.54	0.57	0.67
MAL				1.00	0.15	0.62	0.30	0.19	0.55	0.37
PHI					1.00	0.45	0.44	0.26	0.04	0.20
SIN						1.00	0.44	0.24	0.51	0.63
THA							1.00	0.33	0.40	0.43
JPN								1.00	0.41	0.39
HKG									1.00	0.66
USA										1.00

Source: Index values are from Bloomberg LP.

The logo for the Asian Development Bank (ADB), consisting of the letters 'ADB' in a white, serif font on a dark square background.

Investment, fixed-income capital, and equity markets (2004)

Investment to:	Investment from:									
	NAFTA		EU15		East Asia		Rest of the World		Total Global	
Total Portfolio Investment										
NAFTA	624	(15.0)	2,117	(17.6)	849	(32.3)	1,877	(42.2)	5,468	(23.5)
EU15	1,866	(45.0)	7,709	(64.1)	944	(35.9)	1,733	(39.0)	12,252	(52.7)
East Asia	588	(14.2)	578	(4.8)	149	(5.7)	182	(4.1)	1,497	(6.4)
Rest of the World	1,070	(25.8)	1,622	(13.5)	688	(26.2)	650	(14.6)	4,031	(17.3)
Total Global	4,149	(100)	12,026	(100)	2,630	(100)	4,443	(100)	23,247	(100)
Long-Term Debt Securities										
NAFTA	218	(21.0)	1,035	(14.8)	615	(32.8)	1,297	(46.9)	3,165	(25.0)
EU15	438	(42.2)	4,789	(68.4)	718	(38.3)	1,036	(37.5)	6,981	(55.0)
East Asia	62	(6.0)	132	(1.9)	49	(2.6)	64	(2.3)	308	(2.4)
Rest of the World	319	(30.8)	1,050	(15.0)	492	(26.2)	368	(13.3)	2,229	(17.6)
Total Global	1,037	(100)	7,007	(100)	1,875	(100)	2,765	(100)	12,683	(100)
Equity Securities										
NAFTA	389	(13.5)	914	(21.6)	212	(33.5)	237	(24.5)	1,752	(20.1)
EU15	1,253	(43.5)	2,348	(55.5)	179	(28.2)	415	(42.9)	4,194	(48.1)
East Asia	523	(18.1)	402	(9.5)	78	(12.3)	48	(5.0)	1,051	(12.1)
Rest of the World	718	(24.9)	569	(13.4)	164	(25.9)	267	(27.6)	1,718	(19.7)
Total Global	2,882	(100)	4,233	(100)	632	(100)	967	(100)	8,715	(100)

Source: International Monetary Fund, Coordinated Portfolio Investment Survey, December 2004.

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III. Financial Market Integration in East Asia

3. Macroeconomic Interdependence

- Macroeconomic interdependence is strong in East Asia as evidenced by synchronized economic cycles and high cross-country correlations of shocks
- Japan; Korea; Taipei, China; and Hong Kong as well as middle-income ASEAN countries have a large degree of real macroeconomic co-movements, but China and low-income ASEAN countries do not
- Surprisingly the United States (or EU, Australia, New Zealand, India) does not exhibit strong positive co-movements in real economic activity with East Asia, while co-movements in nominal variables are significant

Correlation Coefficients between the First Principal Component Scores for East Asia and Individual Economy Data (1980-2002)

Countries/Regions	Growth of Real Economic Activity			Price Inflation		
	GDP	Consumption	Investment	GDP Deflator	CPI	WPI
USA	0.01	-0.32	-0.41	0.17	0.85	0.30
EU-15	0.01	-0.18	-0.14	0.10	0.78	-0.01
Australia	-0.16	-0.15	-0.20	-0.02	0.31	0.00
New Zealand	0.27	-0.04	0.19	-0.07	0.40	0.22
India	0.09	0.01	-0.03	0.06	0.63	0.34
Japan	0.58	0.39	0.41	0.15	0.90	0.46
Korea	0.71	0.78	0.67	0.27	0.89	0.48
China, People's Republic of	0.07	-0.14	-0.26	-0.40	0.15	--
Taipei, China	0.51	0.28	0.28	0.35	0.85	0.50
Hong Kong, China	0.74	0.63	0.58	-0.06	0.80	--
Singapore	0.77	0.76	0.59	0.08	0.87	0.45
Malaysia	0.90	0.87	0.95	0.40	0.79	0.68
Thailand	0.89	0.92	0.88	0.54	0.87	0.70
Philippines	0.33	0.31	0.55	-0.06	0.57	0.27
Indonesia	0.89	0.65	0.89	0.99	0.21	0.92

IV. Bond Market Development

1. Progress on Bond Market Development

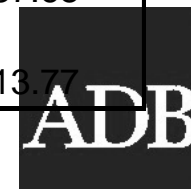
- Total local currency bonds outstanding in emerging East Asia (EEA) more than tripled from \$360 billion in 1997 to \$1,650 billion in 2005, 48% of EEA GDP.
- Despite growth, local-currency bond markets in EEA remain small, only 3% of total local currency bonds worldwide (\$40 trillion).
- The share of local currency bonds in EEA's financial system is rising, from 13% in 1997 to 19% in 2004.
- Market liquidity, measured by trading volume and turnover ratios, has risen in recent years, but remains low relative to OECD markets.

Emerging East Asia's local currency bond markets have expanded in absolute size over the last 8 years, reaching \$1,650 billion in 2005 from \$360 billion in 1997.

Size of Emerging East Asian Local Currency Bond Markets

Market	1997	2004	2005	Annual Growth Rate (%)		
	Amount (\$ billion)	Amount (\$ billion)	Amount (\$ billion)	1997 - 2003	2004	2005
PRC	116.40	527.70	633.03	20.94	19.82	19.96
Indonesia	4.60	57.70	47.26	43.52	(12.18)	(18.09)
Malaysia	57.00	110.70	121.79	9.95	12.02	10.01
Philippines	16.92	35.30	41.08	11.08	16.03	16.38
Singapore	23.77	79.39	83.43	18.80	18.09	5.08
Korea	130.37	567.70	637.86	23.39	27.24	12.36
Thailand	10.47	68.00	80.32	30.64	13.79	18.11
Viet Nam	-	3.78	5.20		31.39	37.68
Total Emerging East Asia	359.53	1,450.27	1,649.97	22.05	19.72	13.77

Source: ADB Asian Bond Monitor, March 2006



Emerging East Asia's bond market as a percentage of GDP continues to grow and has nudged to 48%, a significant increase from 16.5% in 1997

Size of Emerging East Asian Local Currency Bond Markets
(% of GDP)

Market	Amount Outstanding (% of GDP)		
	1997	2004	2005
PRC	12.22	27.32	34.85
Indonesia	1.94	22.80	16.82
Malaysia	56.36	93.56	93.24
Philippines	20.50	41.00	42.02
Singapore	24.79	73.80	71.47
Korea	25.07	83.34	83.03
Thailand	6.65	42.09	46.43
Viet Nam	-	8.32	9.85
Total Emerging East Asia	16.54	42.85	48.02

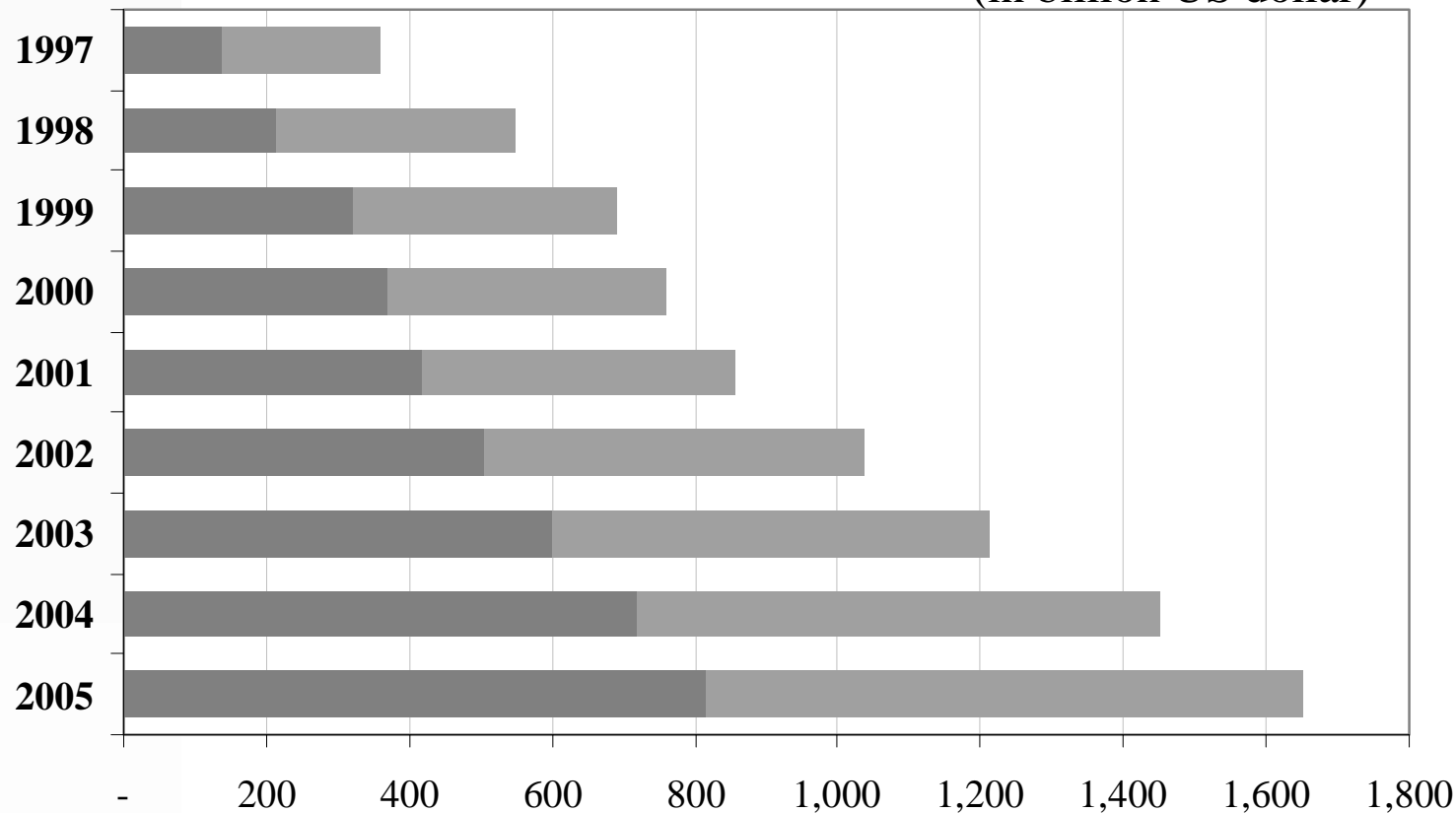
Source: ADB Asian Bond Monitor, March 2006



Size and composition of East Asia local currency bond market has increased almost 5 folds.

Evolution of Size and Composition of Emerging East Asian Local Currency Bond Markets, 1997-2005

(in billion US dollar)



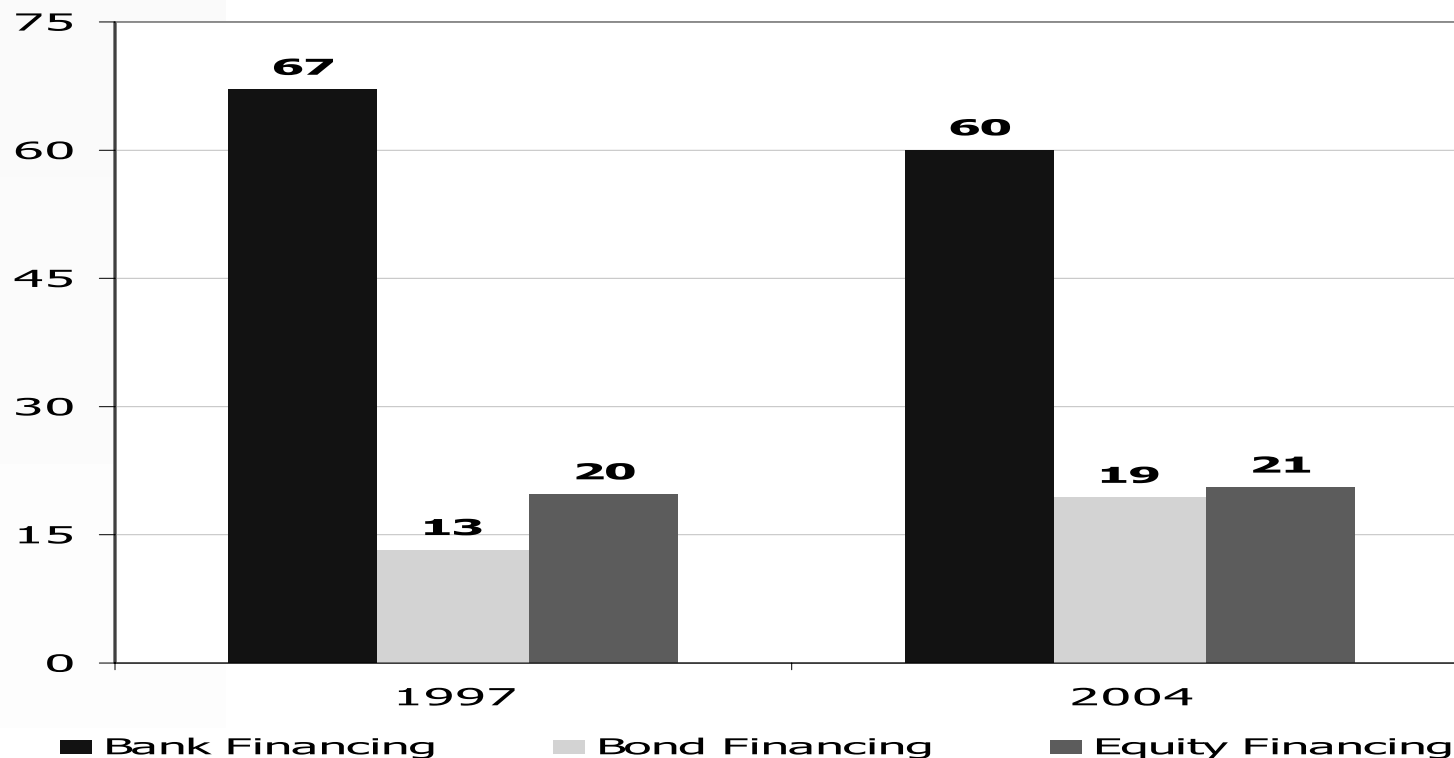
Source: ADB Asian Bond Monitor, March 2006

■ Government ■ Corporate



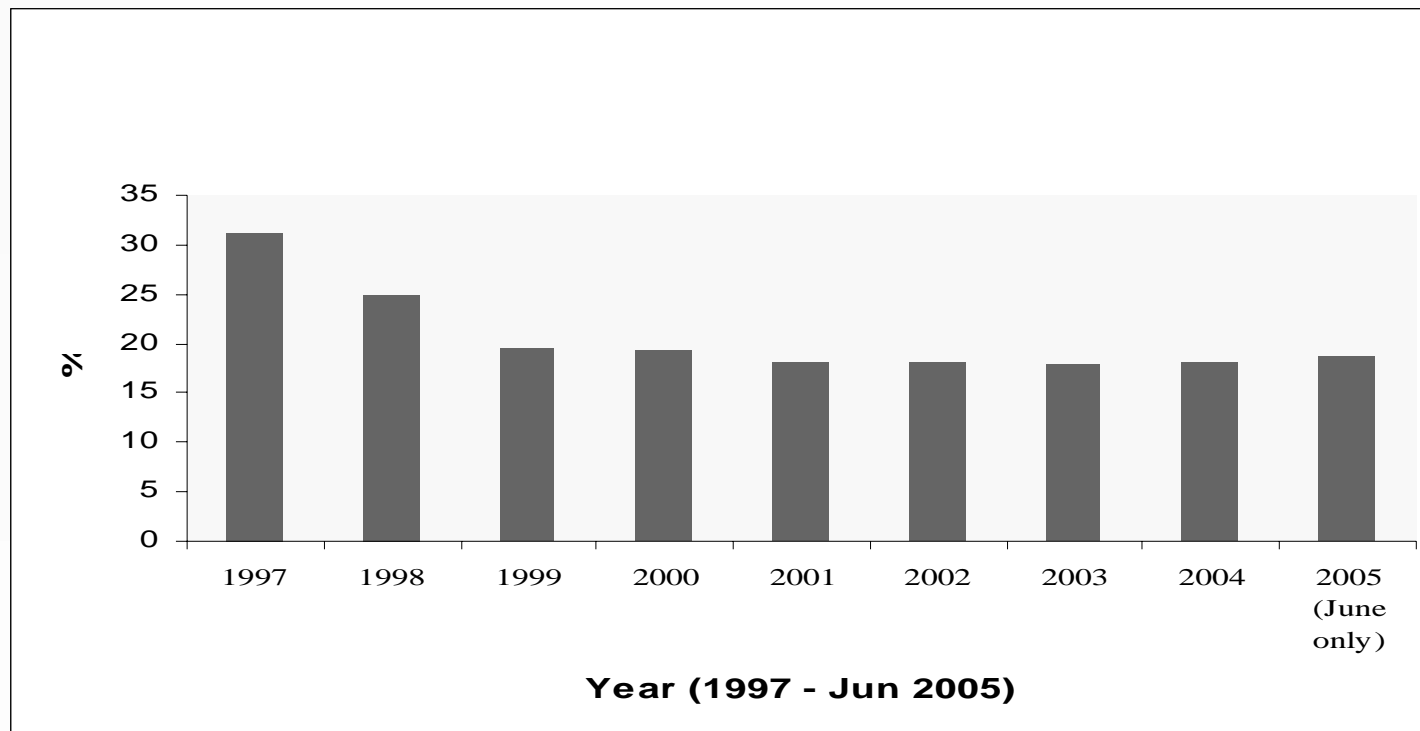
Local currency bond markets are increasingly becoming an important vehicle for channeling domestic savings to investment in emerging East Asia

Bond financing now accounts for 19% of the total domestic financing, compared with 13% in 1997



Proportion of foreign currency (FCY) bond issued in selected East Asian markets * had decreased about 12% since the 1997 financial crisis

Average % of bonds issued in FCY Selected East Asian Countries (1997 - Jun 2005)

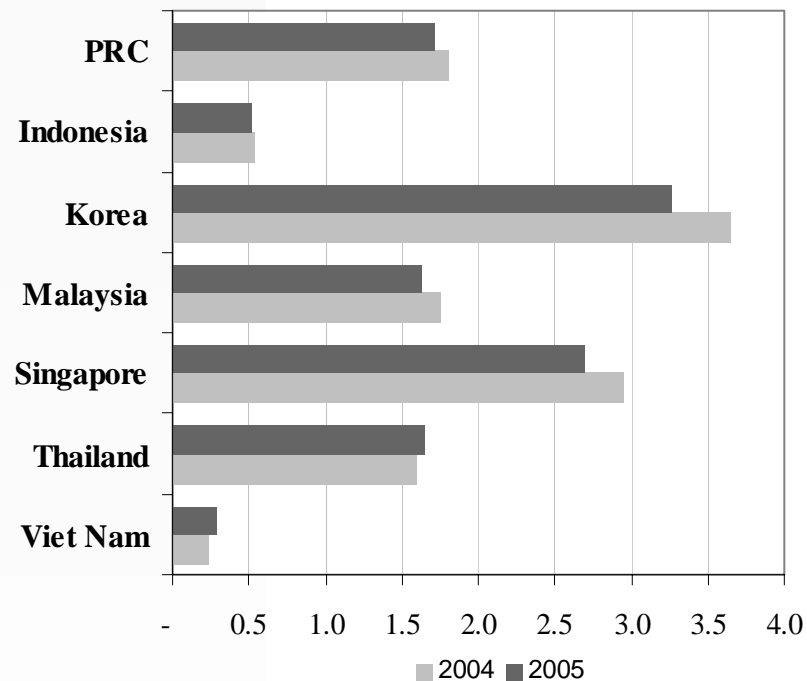


Source: <http://asianbondsonline.adb.org>

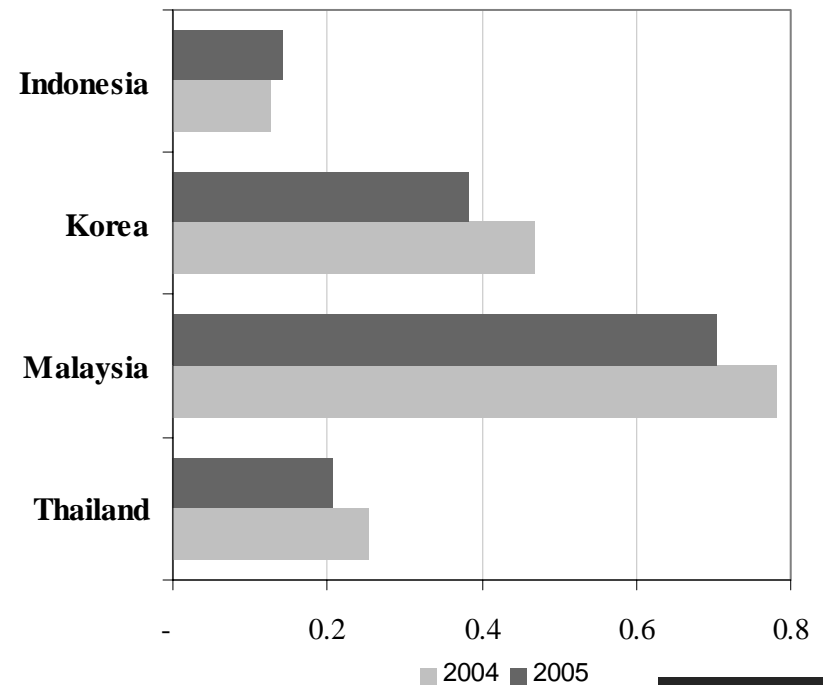
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Turnover ratios are still low, particularly in corporate bond markets

Government Bond Turnover Ratio



Corporate Bond Turnover Ratio



Source: ADB Asian Bond Monitor, March 2006



With increasing short-term interest rates and relatively stable long rates, yield curves have flattened in all bond markets in emerging East Asia

Market	Yield Curve Slopes (in basis points)		
		Jan-05	Mar-06
PRC	2-yr vs 12-yr	230	93
Indonesia	2-yr vs 10-yr	190	54
Korea	3-yr vs 10-yr	62	42
Malaysia	3-yr vs 10-yr	172	48
Philippines	2-yr vs 10-yr	250	106
Singapore	2-yr vs 10-yr	130	56
Thailand	2-yr vs 10-yr	210	23
Hong Kong, China	2-yr vs 10-yr	265	29
Japan	2-yr vs 10-yr	132	114
US	2-yr vs 10-yr	111	(3)

1. As slope approaches zero, the yield curve *flattens* .
2. Negative slope denotes *inverted* yield curve.

Source: ADB Asian Bond Monitor, March 2006



IV. Bond Market Development

2. Issuers and Investors

- Governments remain major issuers of local currency bonds in EEA, though corporations and financial institutions are becoming more active, particularly in Korea and Malaysia (where non-government entities are the largest issuers).
- Bond holdings by commercial banks have been declining while holdings by contractual savings institutions (pension, etc) have been rising.
- While the issuer base has expanded, overall investor base remains narrow and over half of local currency bonds are still held by commercial banks.



V. Recent Policy Initiatives

3. Major Initiatives

- Executive's Meeting of East Asia-Pacific Central Banks (EMEAP) to strengthen the demand side through ABF
- ASEAN+3 Finance Ministers' process to strengthen the supply side through the ABMI
- APEC Finance Ministers' process to work on overall financial sector development including bond markets
- Asia Cooperation Dialogue (ACD) to raise political support to, and public awareness of, Asian bond market development in an expanded geographical coverage—28 countries, including ASEAN+3, South Asia, West Asia (Middle East), and Central Asia

Initiatives in Various Forums

EMEAP

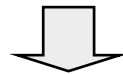


**Use of Foreign
Exchange
Reserves**

11 Central Banks

ABF1 and ABF2

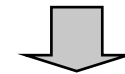
APEC



**Initiatives on
Securitization &
Credit
Guarantees**

**Action plans for
Governments to
be implemented**

ASEAN + 3



**Comprehensive
initiatives with
WG1, WG2,
WG3, WG4,
ASTFG**

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V. Recent Policy Initiatives

3-1. Asian Bond Market Initiative (ABMI)

- WG1: Creating new securitized debt instruments
- WG2: Credit guarantee and investment mechanisms
- WG3: Foreign exchange transactions and settlement systems
- WG4: Rating Systems
- Ad-hoc Support Team for the Focal Group (ASTFG) now handling AsianBondsOnline, Asia Bond Monitor, and Asian Bond Standards
- Technical Assistance Coordination Team in —now reporting to (ASTFG)

* WG4: Issuance of bonds denominated in local currency by MDBs, government agencies and Asian multinational corporations—resolved due to success in 2005



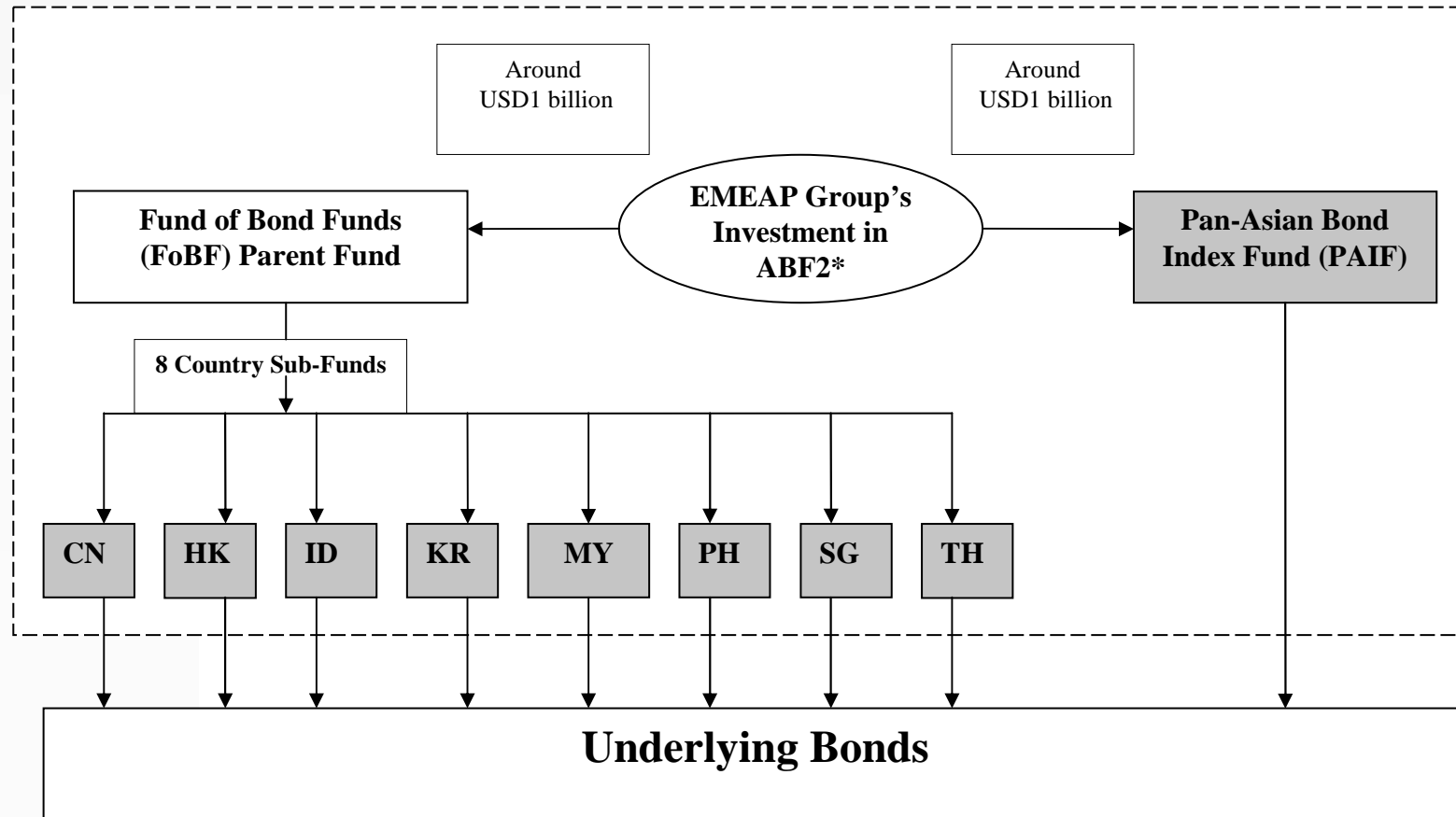
V. Recent Policy Initiatives

3-2. Asian Bond Fund (ABF)

- Initiated by EMEAP to strengthen the demand side
- ABF-1 (June 2003, \$1 billion)
 - Invest in sovereign and quasi-sovereign US dollar bonds issued by 8 members (excl. Japan, Australia, NZ)
- ABF-2 (December 2004, \$2 billion)
 - Pan-Asian Bond Index Fund (PAIF), a single bond fund index investing in sovereign and quasi-sovereign local currency bonds issued by 8 members
 - Fund of Bond Funds (FoBF) with 8 country subfunds
 - Open to investment by the public
 - Local currency exchange-traded bond funds (ETF) listed in Hong Kong, Malaysia, and Singapore



ABF2 Framework



* The BIS will act as the Fund Administrator for EMEAP Group's investment in ABF2.

■ Components that will be open to investment by other public and private sectors.

Source: EMEAP.

Issuance of local-currency denominated bonds by supra-nationals and foreign (public or quasi- public) entities in ASEAN+3 countries

Date	Country	Issuer	Amount	Tenor
Nov 04	Malaysia	ADB	MYR400 million	5-year bond
Dec 04	Malaysia	IFC	MYR500 million	3-year Islamic bond
May 05	Malaysia	WB	MYR760 million	5-year Islamic bond
May 05	Thailand	ADB	THB 4 billion	5-year bond
Sep 05	Thailand	JBIC	THB 3 billion	5-year bond
Oct 05	PRC	ADB	CNY 1 billion	10-year Panda bond
Oct 05	PRC	IFC	CNY1.13 billion	10-year Panda bond
Oct 05	Philippines	ADB	PHP 2.5 billion	5-year bond
Apr 06	Malaysia	ADB	MYR500 million	5 year bond*
May 06	Malaysia	KfW**	MYR500 million	7-year bond

VI. Challenges Ahead

1. Building a Well-functioning Bond Market

- Financial sector reforms—including further development of local currency-denominated bond markets—is key to Asia’s financial sector development and integration
- Asian bond market development helps allocate financial resources more efficiently through price discovery and better risk management
- Corporate governance—Strong corporate governance is a must so that borrowers and corporations are subject to sufficient checks and balances

VI. Challenges Ahead

2. Immediate Challenges in Bond Markets

- *Deepen bond market liquidity*—through greater price transparency such as better price guidance for (illiquid) assets and more immediate transaction disclosure
- *Increase timely information about issuers*—through improvement of the quality of credit rating agencies and their frequent reporting, and requiring issuers to increase reporting frequency
- *Expand investor base and diversity*—through more equal treatment regarding transaction-related requirements and taxation



VI. Challenges Ahead

3. Regional Cooperation

- Regional cooperation—through ASEAN+3 and EMEAP—is a powerful tool to achieve joint improvements of bond markets, financial integration and financial stability
- Regional efforts toward: credit enhancement; regional settlement system; regional rating agency; and regional common standards based on best practices

Thank you

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