



# Perspectives on Financial Development: A Framework and Its Application To Domestic Capital Markets in EM Asia

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# Outline

- The Framework and How to Apply It
- State of Development of Domestic Capital Markets in Asia
- Impediments to Contracting, Trading, and Enforcing
- Addressing Gaps and Reducing Hurdles

# Approach of the Framework

- Study incentives facing the key players in financial markets—borrowers, lenders, liquidity providers, and regulators
- Actions of key players with respect to designing, executing, trading, and enforcing of financial contracts that shape markets
- Identify the obstacles that prevent players from contracting, trading, or enforcing
- Search for ways to remove or detour around the obstacles

# Framework: Contracts

- Every financial instrument is a contract
- Financial development is the process of designing new contracts (widening) and increasing the use of existing contracts (deepening)
- Achieving compromise between the two parties is the essential goal of contract design-
  - Maturity-collateral compromise
  - Seniority-control compromise

# Obstacles to Contracting

- Sufficient borrowers or lenders may not be present
- Borrowers and Lenders cannot agree on the terms of contracts
- Asymmetric information—the Lenders cannot verify the intentions or actions of the Borrower
- Monitoring is too costly or impossible

# Role of Liquidity Providers

- Dealers and Traders—take long-term or short-term positions in an instrument and benefit from trading
- Also could be provided by Borrowers and Lenders, but best done by agents who are free of their constraints
- Need for liquidity comes mostly from Lenders
  - Maturity of instrument greater than desired
  - Adverse events lead to sudden need for cash
- Wish List:
  - Sufficient counterparties to transact with
  - Low transactions costs
  - Fast and secure clearing and settlement
  - Attractive instruments
- Liquid secondary market enhances the primary market

# What makes an instrument attractive to a liquidity provider?

- Large size of issuances
- Sufficiently long “trading life”
  - Long maturity or repeated issuance
- Sufficiently large turnover
  - Multiple uses for the instrument (government bonds, for example)
- Attractive risk profile
  - Ability to isolate and trade one risk

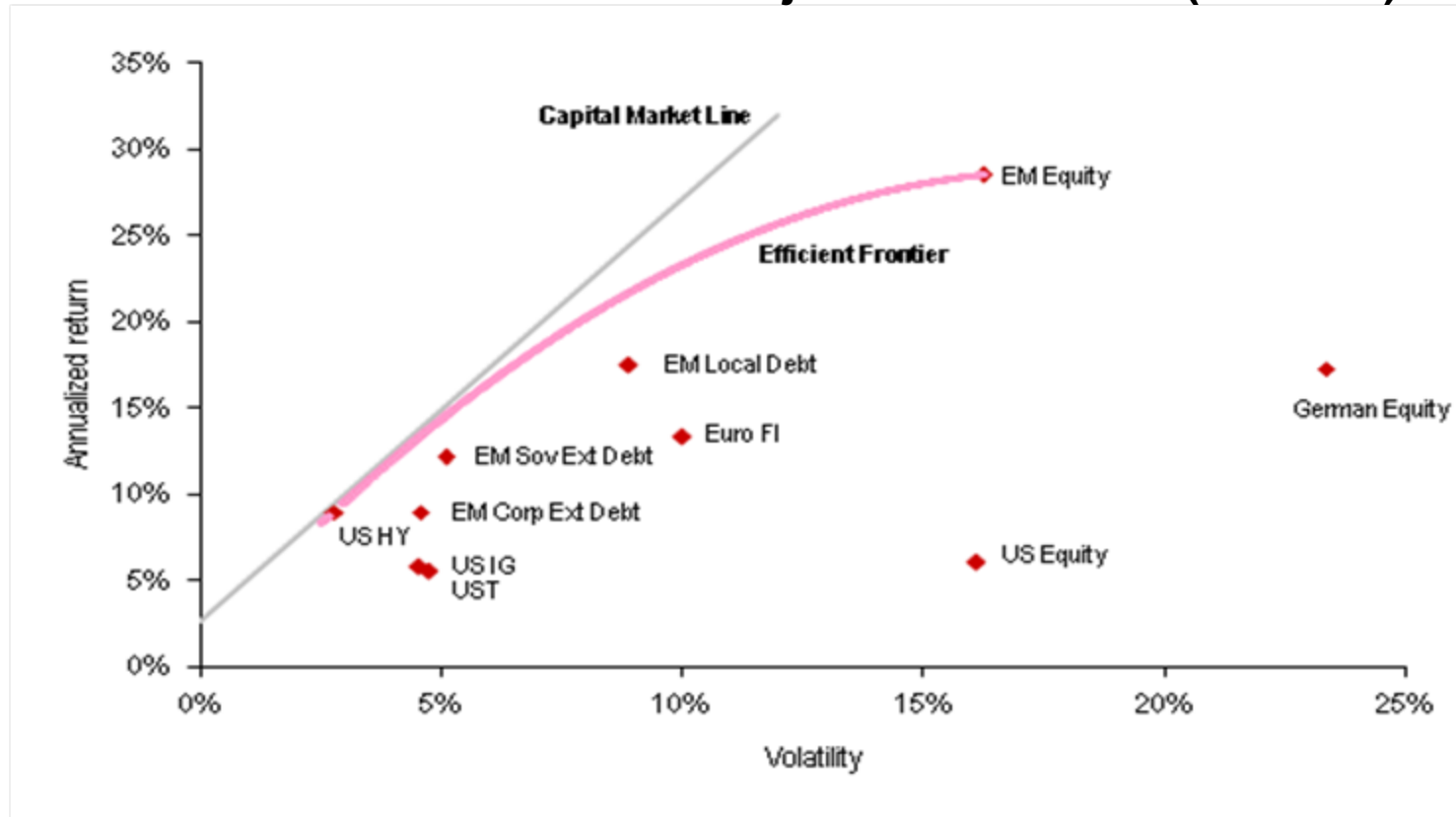
# Regulators

- Enforcement is key to maintaining the willingness to contract
- Many other regulatory services are necessary for financial development:
  - Establish Rule of Law for financial markets
  - Regulation and Supervision
  - Remove obstacles to development
  - Create supportive environment for development
  - Coordination and direction of markets



# EM Local Debt Markets – Favorable Risk-Return Profile Prior to Global Crisis

Risk-return Profile of Major Global Assets (2002–07)



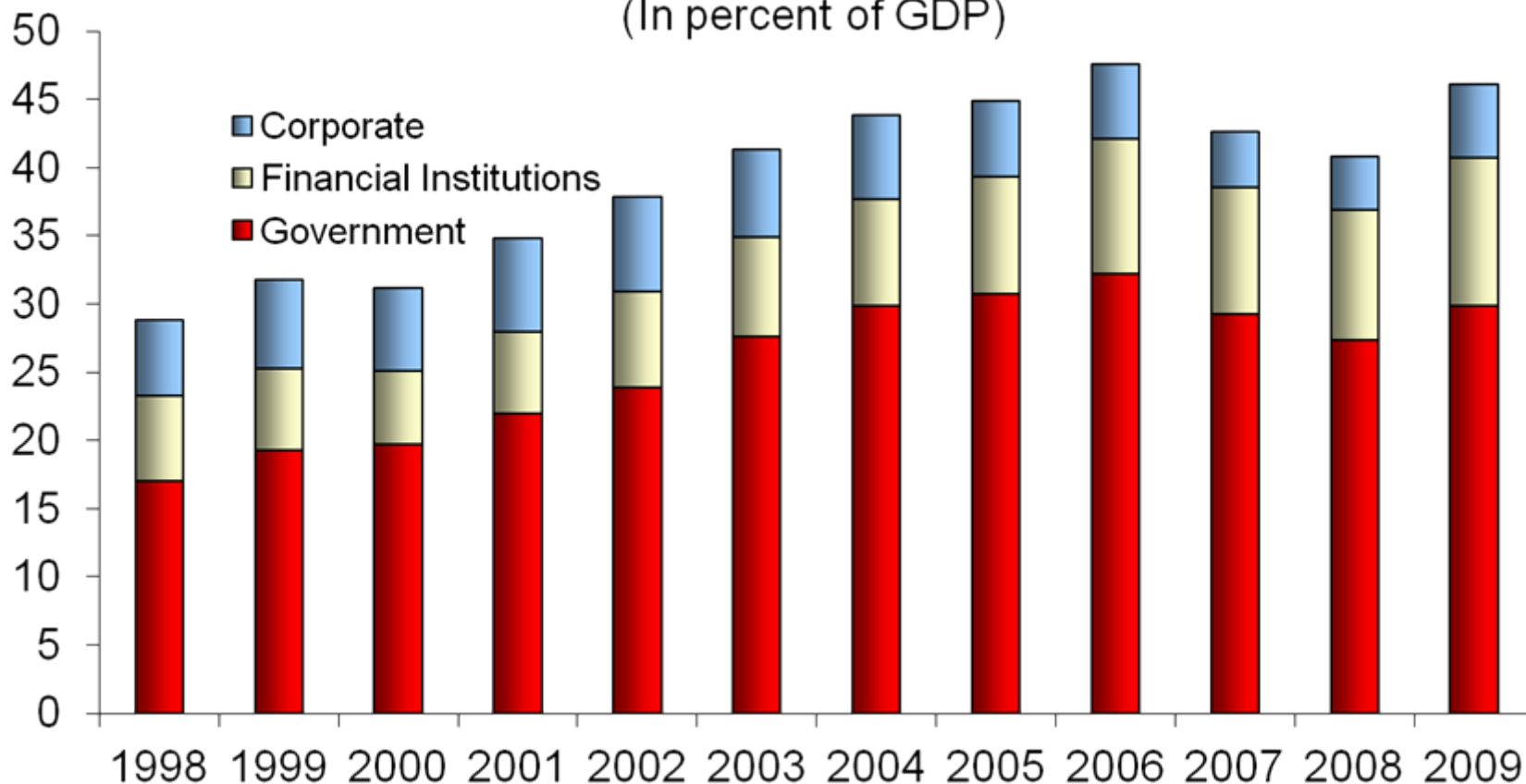
Source: JP Morgan.

# Asian EM Capital Markets: Before the Global Credit Crisis and Now

- 2000-07 period was marked by very favorable macro performance in growth, inflation, interest rates, currency, and reserves;
- Major advances in public debt management including issuance: formal DMUs, debt management strategies, risk management, primary dealer systems, consolidation, benchmark issues, long term yield curve;
- Diversification of investor base, especially foreign investors, including through offshore derivatives structures such as “Total Return Swaps” and by domestic pension funds;
- But, in a more integrated and globalized world, credit market strains in MM spread to EM local markets including a more resilient Asia;

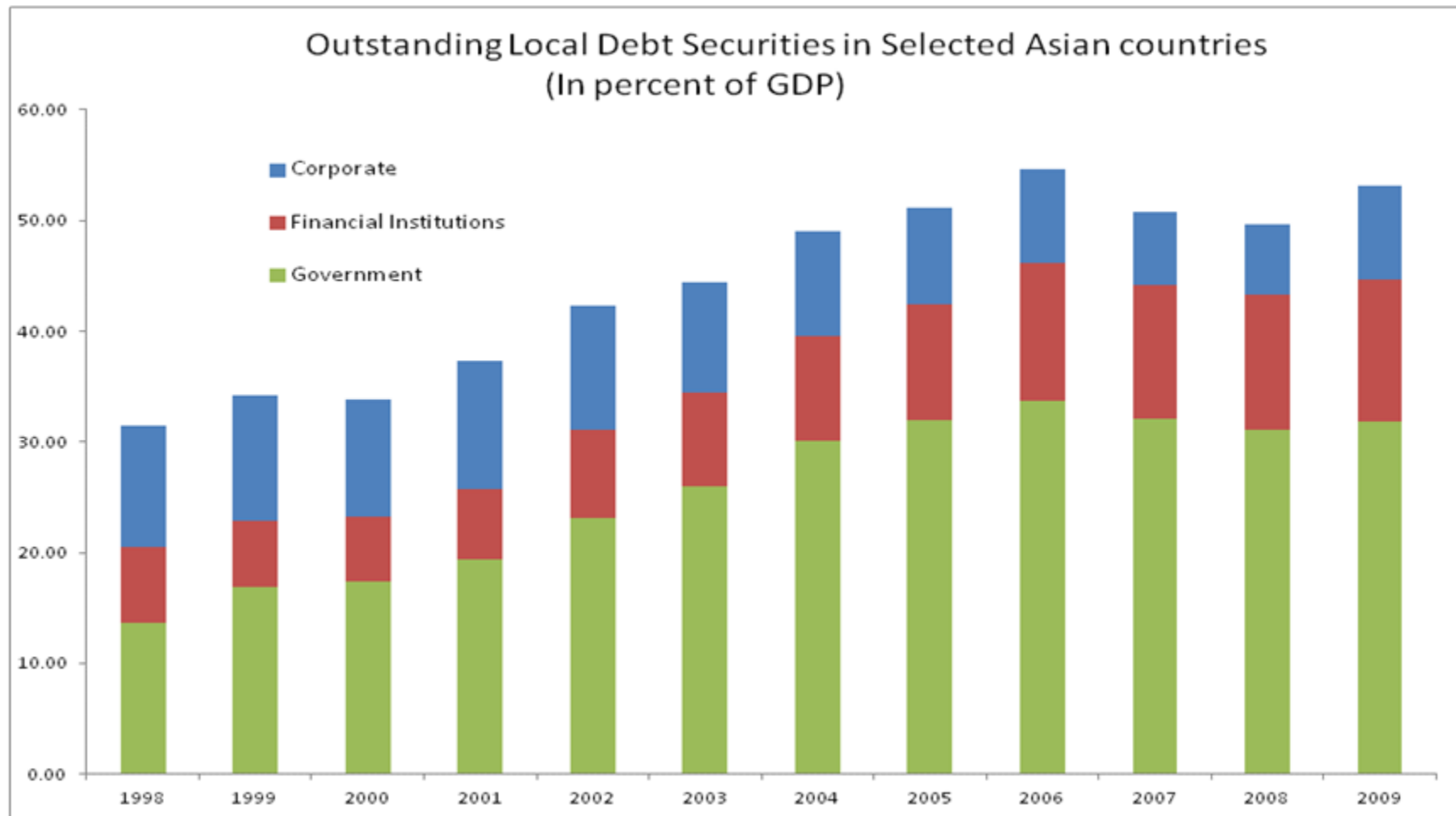
# Rapid Growth in EM Local Debt Markets Prior to Crisis

Outstanding Local Debt Securities in Selected EM  
(In percent of GDP)

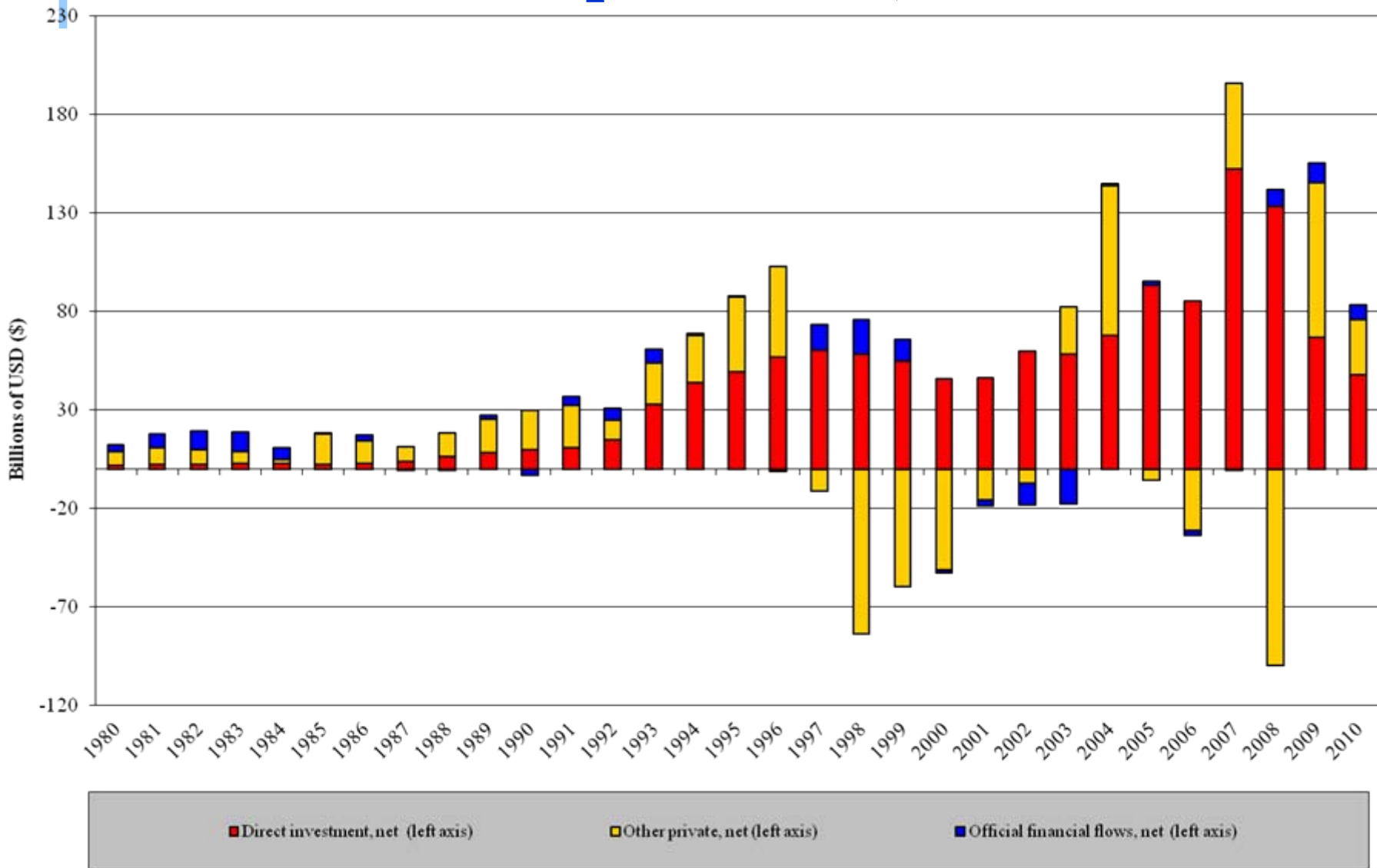


Source: BIS, IMF WEO

# Rapid Growth in EM Local Debt Markets in Asia Prior to Crisis but Sovereign Debt Centric

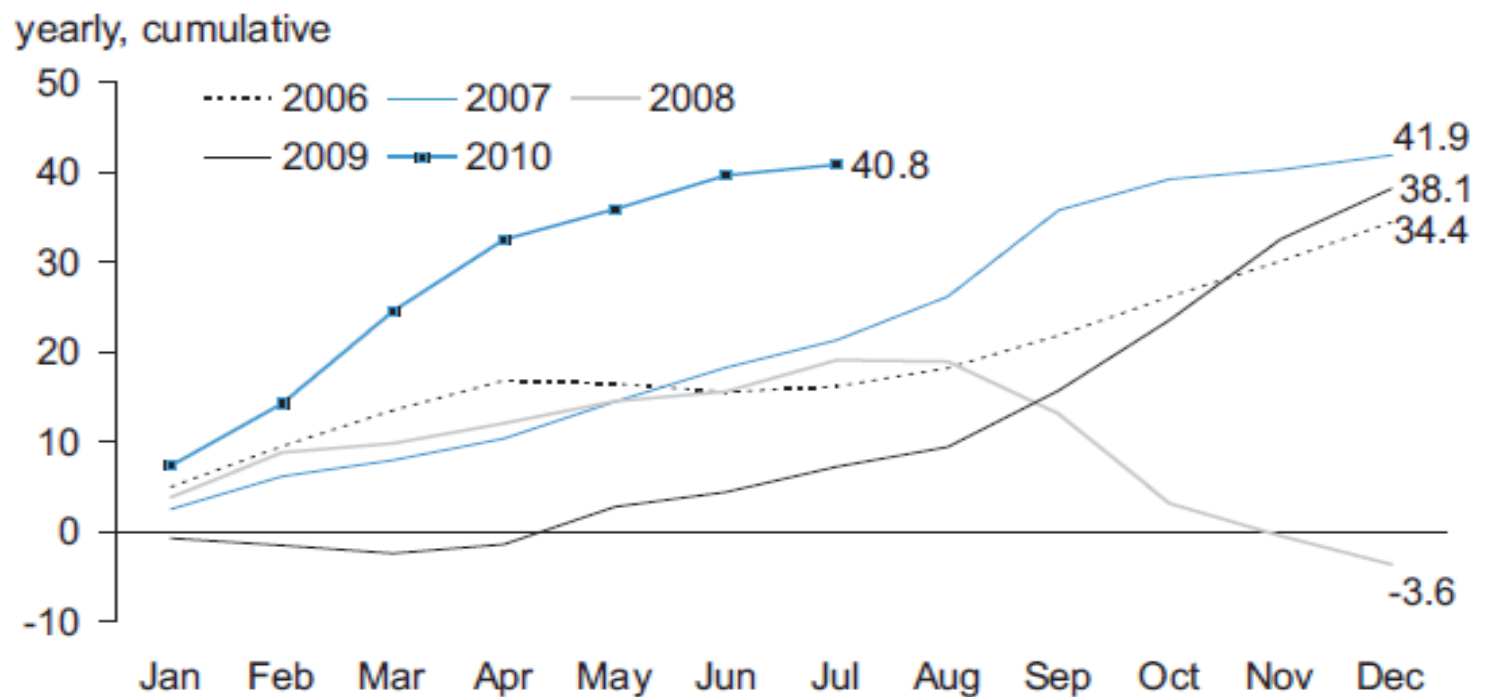


# Asia: Net Capital Flows, 1980-2010



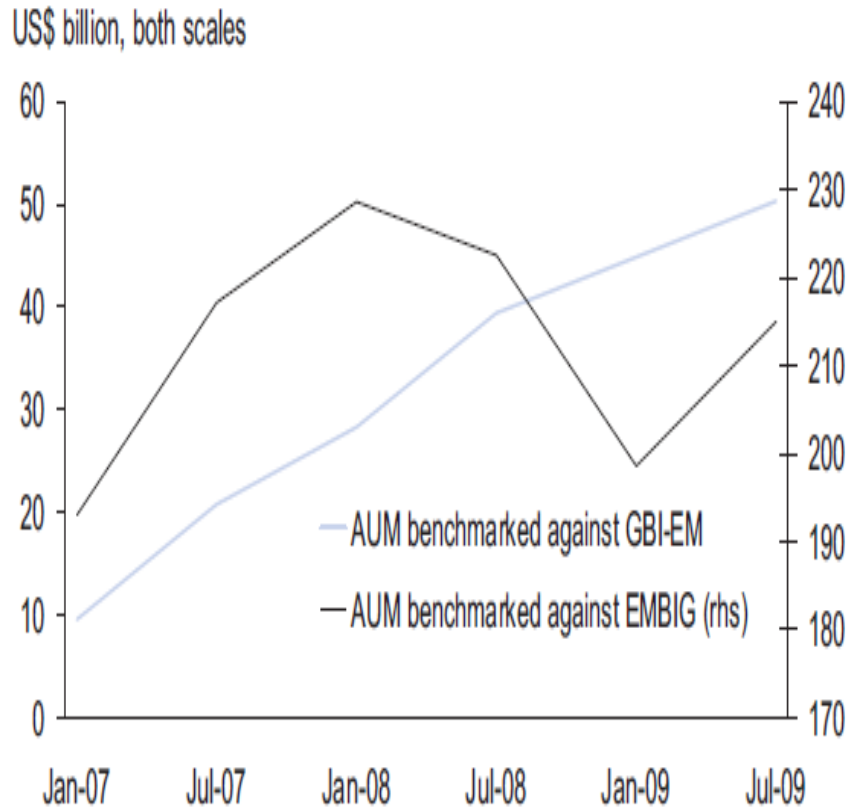
Source: IMF WEO

# Foreign Investor Flows in EM Local Debt Markets

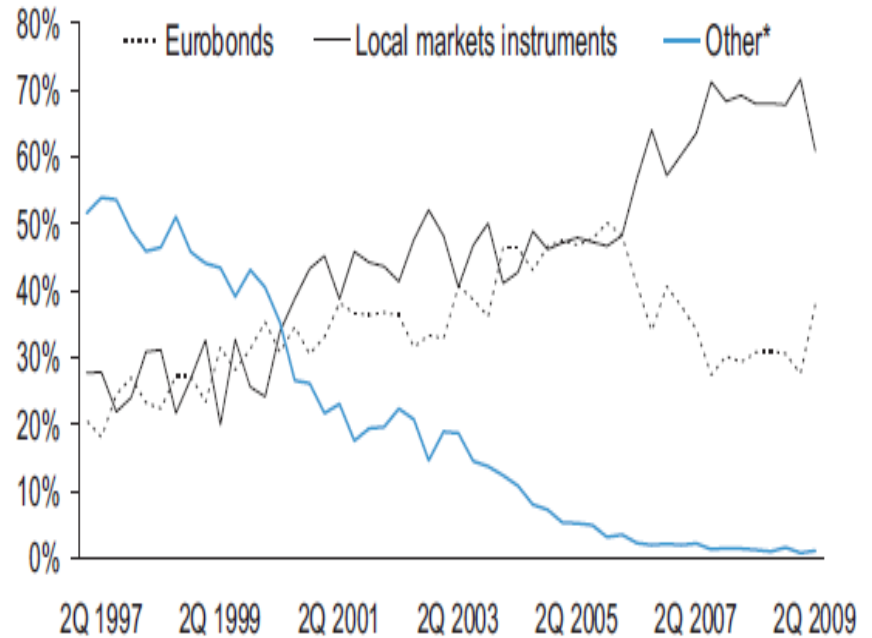


Source: EPFR Global, Bloomberg, and J.P. Morgan

# Foreign Investor Interest in EM Local Debt vs. EM External Debt



Source: J.P. Morgan

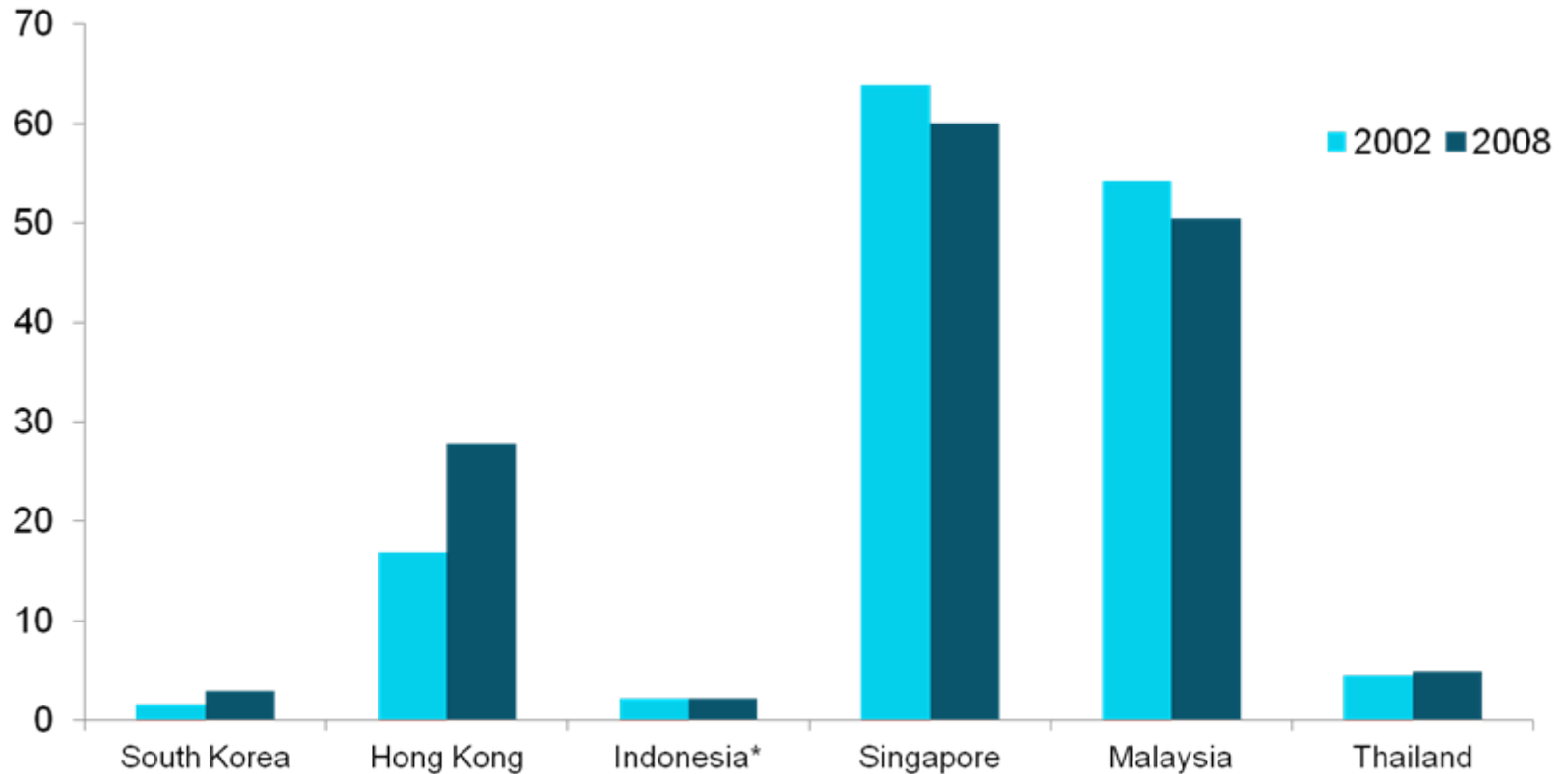


\* Includes loans, Brady Bonds, options, and warrants.

Note: EMTA data cover only those institutions who report figures to EMTA. While this represents the majority of trades for external debt, for local debt this does not capture onshore activity. Given a shift in holdings in many markets to local banks and institutional investors, the decline is therefore potentially overstated.

Source: EMTA and J.P. Morgan

# Growing Domestic Investor Base: Pension Funds (end-2008, in percent of GDP)

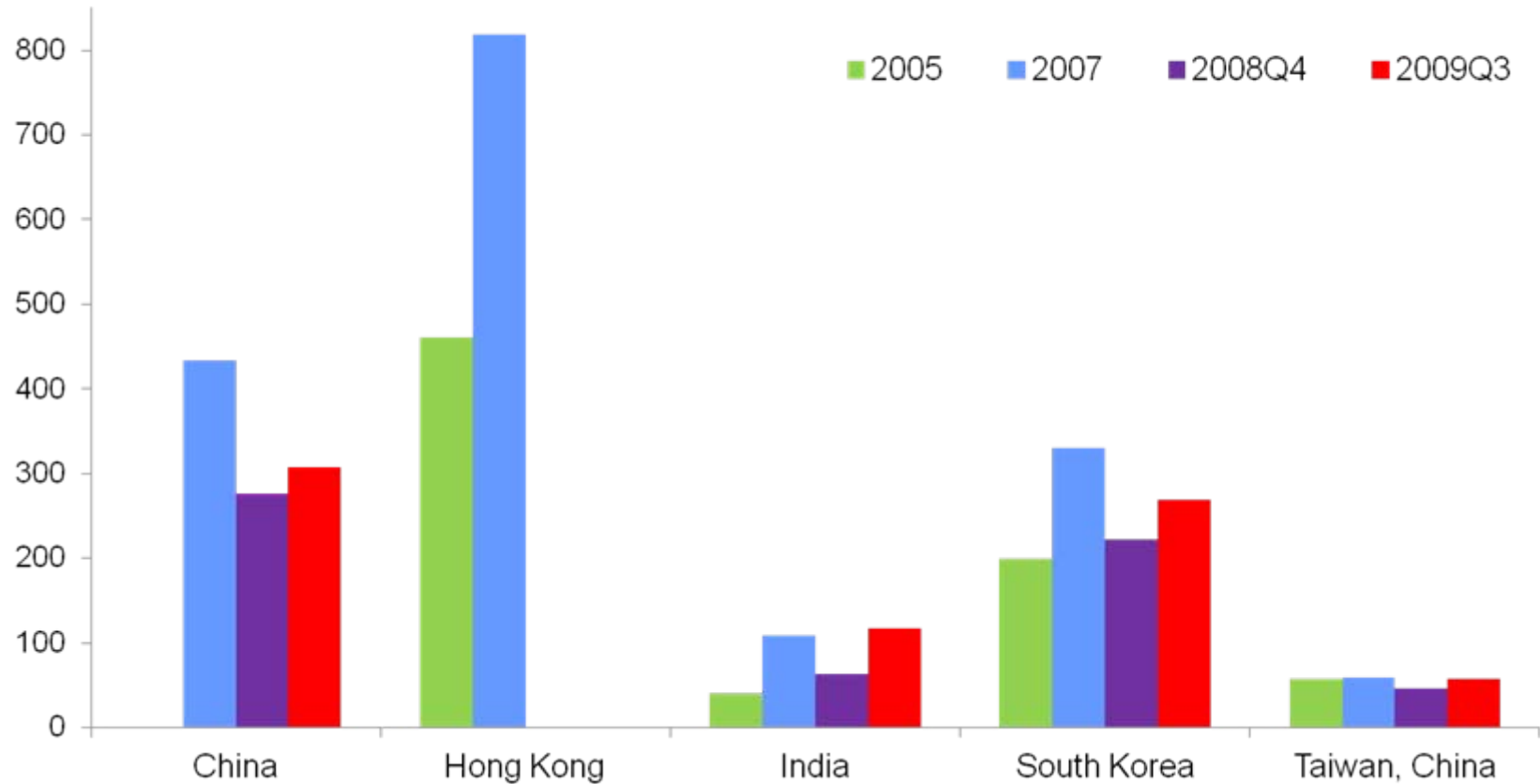


\*Latest Figure for Indonesia: 2007



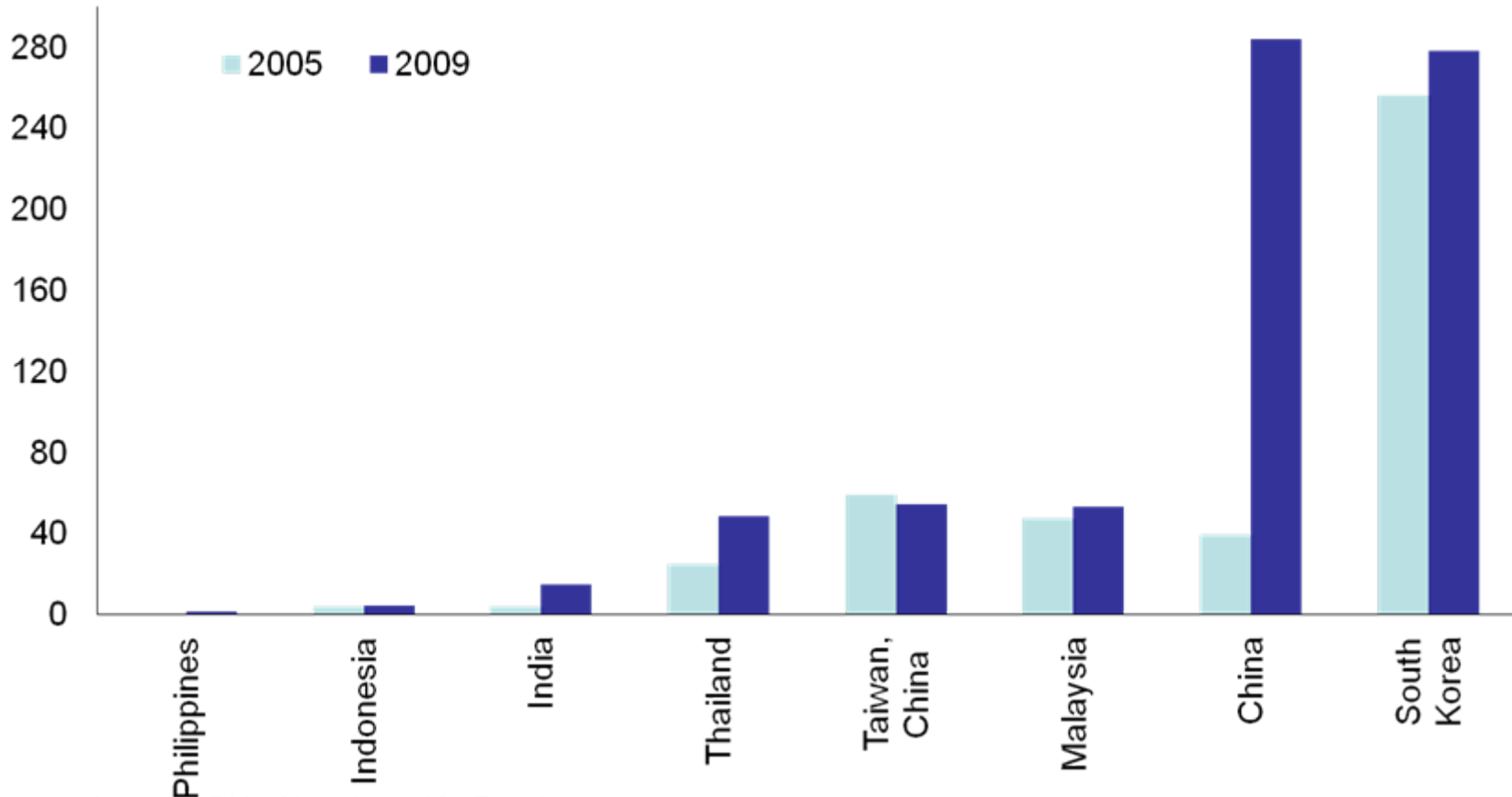
# Growing Domestic Investor Base: Mutual Fund Assets

(Total Net Assets, US\$ billions)



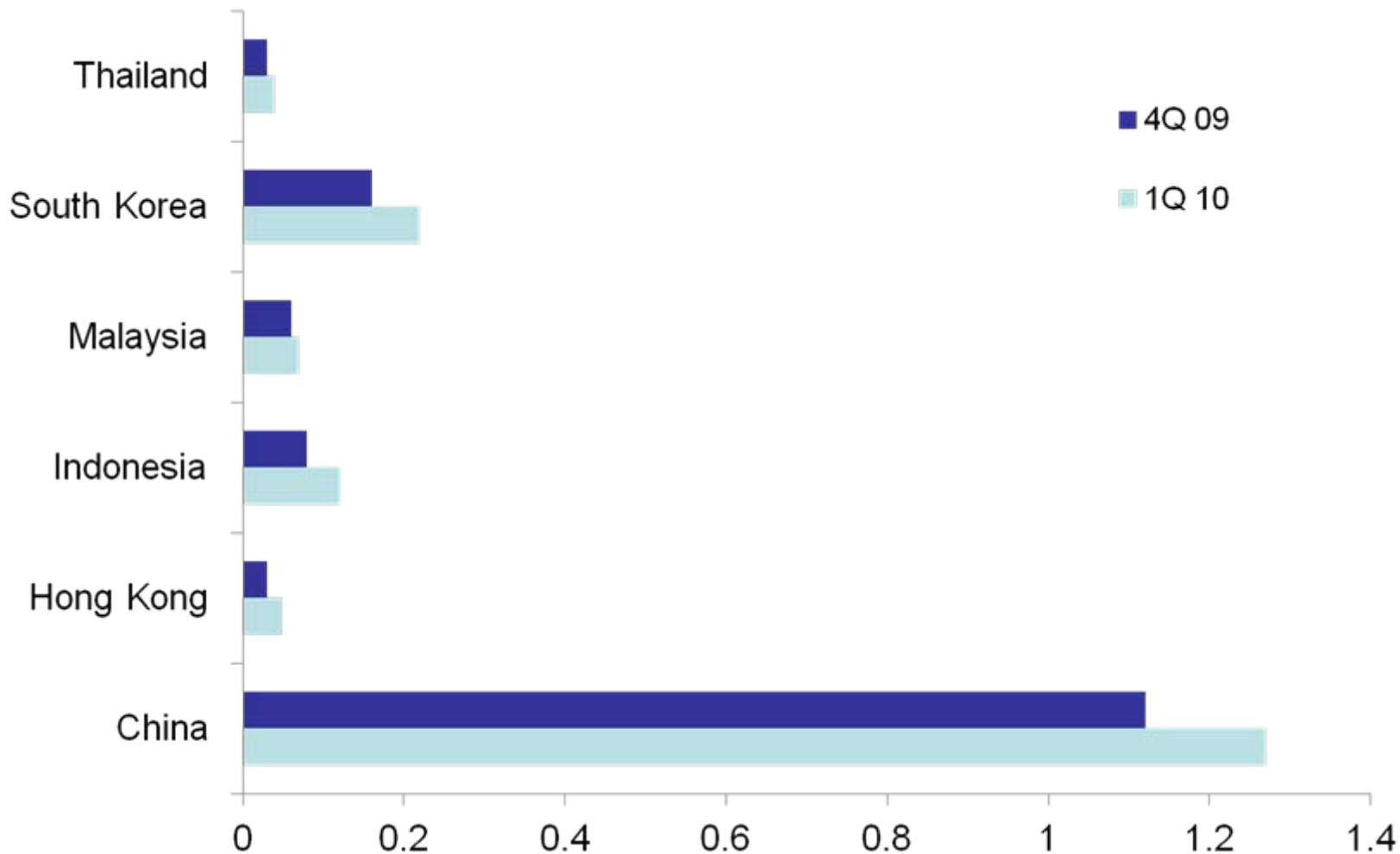
# But Local Corporate Debt Markets Still Nascent in Many Asian EMs

Asia - Size of EM Corporate Bond Markets  
(In billions of U.S. Dollars)



Sources: BIS; Cbonds and IMF estimates.

# Liquidity in Corporate Bond Market is Low (Turnover Ratio)



Source: AsianBondsOnline

# Key impediments to contracting, trading and enforcing

- Incomplete yield curve, assets marked to benchmark indices still low;
- Foreign investor taxation and capital controls: withholding taxes, registration and repatriation;
- Sizeable holdings by banks prevent two-way market;
- Restrictions on investors: limits on local pension fund investments;
- Incomplete markets: repo markets underpin liquidity in capital markets (illiquid between FIs), interest rate swap markets;
- Infrastructure issues: trading and settlement (cross-border), valuation (price vendors);
- Regulation of institutions with capital market activity, OTC vs. exchange/clearing house;

## Key impediments to contracting, trading and enforcing (contd.)

- Structural issues affecting most corporate bond markets:
  - Lack of critical mass;
  - High execution cost for issuers;
  - Low liquidity-lack of liquid interest rate swap curve as pricing benchmark, lacking market-making;
  - Bank dominated financial systems;
  - Limited and buy-and-hold investor base (bond market funds, insurers, pension funds);
  - Corporate governance and bankruptcy frameworks, accounting, transparency;

# Accessibility, Taxation, Funding, and Hedging

	China	Hong Kong	Korea	India	Indonesia	Malaysia	Philippines	Singapore	Chinese Taipei	Thailand
<b>Holding and buying local bonds</b>	Limited	Yes	Yes	Limited	Yes	Yes	Custodian	Yes	Limited	Limited
Non-resident access	Via QFII	Yes	Yes	Via FII	Yes	Yes	Yes	Yes	Via QFII	Yes
FX restrictions	Yes	No	No	Yes	Yes	Very Few	Yes	No	Yes	Yes
Withholding tax (non-residents)	Only corp	No	No	Yes	Yes	No	Yes	No	Yes	Only corp
Capital gains tax (non-residents)	No	No	Yes	Yes	Only corp	No	Only corp	No	No	Only corp
<b>Funding / hedging instruments</b>										
Developed Repo Markets	Yes	Yes	Yes	Yes	Limited	Yes	No	Yes	Limited	Limited
<i>OTC Instruments</i>										
IRS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FX Swaps	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FX Forwards	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Exchange Traded Instruments</i>										
IR Futures	No	Yes	Yes	No	No	Yes	No	Yes	Yes	No
FX Futures	No	No	Yes	No	No	No	No	No	No	No
Liquid NDF market	Yes	No	Yes	Yes	Moderate	Moderate	Moderate	No	Yes	No
Up to 12 Months	Yes	-	Yes	Yes	Moderate	-	Moderate	-	Yes	-
Up to 5 Years	Limited	-	Yes	Moderate	Illiquid	-	Limited	-	Moderate	-

Source: Barclays Capital, JPMorgan, Deloitte & Touche, Price Waterhouse Coopers, BIS, WFE, Asianbondsonline.com, local governments and exchanges.

Note: CMCG Report Final Draft (2008).

# Addressing Gaps: Investability Criteria

A. Market Access	<ul style="list-style-type: none"> <li>Regulation of outflows</li> <li>Regulation of inflows</li> <li>Restrictions on money market</li> <li>Restrictions on bond market</li> <li>Restrictions on derivatives</li> </ul>
B. Market Taxation	<ul style="list-style-type: none"> <li>Turnover taxes</li> <li>Short-term taxes</li> <li>Effective capital gains tax rate</li> <li>Income withholding taxes</li> <li>Double taxation treaties</li> </ul>
C. Market Efficiency and Regulation	<ul style="list-style-type: none"> <li>Primary market and issuance cost</li> <li>Secondary market turnover volume, % free-float</li> <li>Liquidity, bid-offer spreads</li> <li>Legal enforceability of contracts</li> <li>Effective market oversight</li> </ul>
D. Market Infrastructure and Investor Base	<ul style="list-style-type: none"> <li>Settlement system and failure rate</li> <li>Trading system capacity and costs</li> <li>Cost for custodian services</li> <li>Exchange-traded fixed-income funds</li> <li>Size of domestic institutional investors</li> </ul>
E. Market Size and Instruments	<ul style="list-style-type: none"> <li>Average duration of domestic debt</li> <li>Share of fixed-rate debt issuance</li> <li>Share of corporate debt issuance</li> <li>Size of hedging instruments (OTC, ETD)</li> <li>Volume of long-term FX derivatives</li> </ul>

**Source: IFC**

# Priorities for developing local bond markets

- Foreign investor participation/access: tax treatment, access to local funding and hedging markets;
- Widen domestic investor base: proper asset valuation and pricing, gradual liberalization of investment restriction on local pension funds; develop local/regional bond indices;
- Improve infrastructure to reduce systemic risk: regulatory and supervisory requirements, transparency in trading and custodial services, robust clearing & settlement systems;
- Intensify regional initiatives: investible indices, harmonized regulation, regional or harmonized markets, use of SWF and similar vehicles;



## Priorities for developing local bond markets (contd.)

- Allow foreign issuers in local markets (jump starts, benchmarks);
- Legal framework for public and private securities issuance, pricing and valuation services, meaningful disclosure, accounting, investor protection;
- Enable funding (repo) and hedging markets (derivatives) by gradually removing regulatory and tax hurdles; enabling OTC derivatives to move to CCP type platform;
- Securitization with safeguards to ensure adequate prudential standards, supervisory oversight and disclosure: MBS/ABS can solve problems of size, credit quality, and balance sheet mismatches

## 2007–08 Turmoil: Lessons for EM Markets

- Massive shift in risk aversion can lead to significant decline in issuance and in inflows to EM bond markets
- Adequate capitalization of credit institutions;
- Quality of origination;
- Access through complex structures – difficult to assess risk;
- Accurate and timely information on exposures of financial institutions and transparency in trading;
- Suitability of a collective investment scheme for a particular investor;
- Liquidity risk management and collateral management;
- Role of CRA: oversight;
- Self regulation, light-touch regulation has not worked;
- Regulators should have comprehensive enforcement power.