

# Mortgage-Backed Securities Markets in Asia

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Asian Development Bank  
1999

Asian Development Bank  
P.O. Box 789  
0980 Manila, Philippines

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Publication Stock No. 971-561-209-1  
ISBN 020699

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# Foreword

The importance of fixed-income securities markets in promoting economic development in the Asian and Pacific Region is widely recognized. These markets are expected to fund a large portion of the infrastructure investment requirements of the region and to reduce the dependence of the Bank's member countries on external resources. However, the region's bond markets have yet to be fully developed to convert household savings into long-term investments efficiently and effectively.

Recognizing the limited supply of tradable debt instruments in primary markets and the severe liquidity problem experienced by secondary markets in the region, the Economics and Development Resource Center of the Asian Development Bank undertook a regional study to examine the feasibility of creating mortgage-backed securities markets in the Asian and Pacific Region. Mortgage-backed securities are critically important in developing and deepening fixed-income securities markets because they: (i) represent a viable alternative to traditional corporate bond instruments on the demand side; (ii) provide market liquidity to suppliers; and (iii) help financial institutions correct the maturity mismatch between assets and liabilities.

This regional study, which was carried out under the direction of the Resident Scholar, covered eight member countries: the People's Republic of China, India, Indonesia, Republic of Korea, Malaysia, Pakistan, Philippines, and Thailand. I hope that the findings of this study will contribute to the further development of the fixed-income securities markets in the region.

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# Preface

The Asian Development Bank has been playing a catalytic role in developing domestic bond markets in its member countries in view of new economic trends in the region, including: (i) the huge financing requirements of massive infrastructure projects; (ii) declining fund flows from bilateral and multilateral development agencies; (iii) the financial weakening of banking institutions due to nonperforming real estate loans; (iv) the move from equity to debt instruments for corporate financing; and (v) the shift in sources of bond financing from international to domestic markets.

For those economies affected by the Asian financial crisis, asset securitization represents a critically important process in restructuring bank assets. Banks in financial distress can improve their capital adequacy and liquidity ratios by selling their assets, both performing and nonperforming, through asset securitization. The Review of the Mortgage-Backed Securities Markets in Selected Developing Member Countries was undertaken in response to this need.

Mortgage-backed securities were successfully introduced in the US market in 1968. By pooling a number of individual mortgages into a larger, standard denomination and separating their financing and servicing aspects, individual residential mortgages can be made tradable in the secondary market. Most importantly, government guarantees or private insurance schemes against potential default make residential mortgage loans readily collateralized and securitized so that certain segments of the population have access to mortgage funds at more affordable interest rates than would otherwise have been available. As a result, the urban population benefits from the mortgage-backed securities market as home ownership among low- and medium-income groups increases.

The mortgage-backed securities market is one of the best vehicles for tapping household savings in member countries with high savings rates, and for promoting savings in member countries with relatively low savings rates. Additionally, mortgage-backed securities with differing maturities can create a good proxy for benchmark interest rates, and they stimulate secondary market trading activities to provide the much-needed market liquidity. Mortgage-backed securities also help broaden the institutional investor base and lessen the mismatch between assets and liabilities that bedevils commercial banks and thrift institutions.

But despite the natural appeal of mortgage-backed instruments, the secondary mortgage market remains largely undeveloped in the region, whereas mortgage-backed securities account for approximately 30 percent of the US bond market. Even Japan, whose bond market is ranked second in the world for its market activities, has not developed its mortgage-backed securities market.

One exception is Malaysia, where a mortgage-backed security variant was introduced by Cagamas Berhad, a secondary mortgage company, at its inception in 1987. In Malaysia, the sale of mortgage loans by financial institutions to Cagamas Berhad is done with *full recourse* (the mortgage loans still remain on the books of financial institutions). Cagamas Berhad bonds are not directly secured by a pool of mortgage loans. Because of this idiosyncratic feature, the Malaysian mortgage-backed securities market has not developed to its full potential. Cagamas Berhad has proposed to Bank Negara Malaysia that mortgage loans be sold to Cagamas Berhad without recourse.

Indonesia, Korea, and Thailand, for their part, have only been creating the legal framework for the launching of asset-backed securities.

Until this study was made, however, there had been no thorough examination of the reasons why the mortgage-backed securities markets have not developed, nor of the feasibility of introducing mortgage-backed securities in the region's bond markets. The magnitude of residential mortgage loans outstanding in the region indicates the significant potential for the mortgage-backed securities markets. Residential mortgage loans in Hong Kong, for example, accounted for 31 percent of GDP at the end of 1995 and had been growing at 25 percent annually since 1985. Thailand's residential mortgage loans grew at an annual rate of 35 percent during the same period and were about 16 percent of GDP in 1996.

This study would not have been completed successfully without competent assistance from my staff, Yutaka Shimomoto, Wilhelmina Paz, Lagrimas Cuevas, Anthony Ygrubay, and Rosalie Postadan. I would like to thank Mary Ann Asico for editorial advice, and Segundo de la Cruz Jr. for typesetting and the cover design.

On behalf of the Bank research team, I would like to thank the eight participating member countries in this project.

# Acronyms and Abbreviations

ABS	asset-backed security
ACF	Agricultural Cooperatives Federation (Korea)
ADB	Asian Development Bank
ADI	authorized depository institution
AHB	Apex Housing Bank
AMC	Asset Management Corporation (Thailand)
ASEAN	Association of Southeast Asian Nations
ATM	automated teller machine
BAPEPAM	Badan Pengawas Pasar Modal (Capital Market Supervisory Agency, Indonesia)
BHMF	Borneo Housing Mortgage Finance Berhad (Malaysia)
BI	Bank Indonesia
BIDS	Bond Information and Dissemination System (Malaysia)
BIS	Bank for International Settlements
BLR	base lending rate
BMR	Bangkok Metropolitan Region (Thailand)
BNM	Bank Negara Malaysia
BOK	Bank of Korea
BOT	Bank of Thailand
bp	basis point
BPHT	Bea Perolehan Hak atas Tanah dan Bangunan (stamp duties, Indonesia)
BPN	Badan Pertanahan Nasional (National Land Registry Agency, Indonesia)
BSP	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)
BTN	Bank Tabungan Negara (Indonesia)

BTr	Bureau of the Treasury
CARE	Credit Analysis and Research Limited (India)
CB	convertible bond
CBDT	Central Board of Direct Taxes (India)
CCIB	Coordinating Committee for Issuing Bonds (Korea)
CCL	credit commitment line
CD	certificate of deposit
CDC	Central Depository Company (Pakistan)
CIBI	Credit Information Bureau Inc. (Philippines)
CIC	collective investment contract
CLA	Corporate Law Authority (Pakistan)
CMDC	Capital Markets Development Council
CMDP	Capital Market Development Program
COI	certificate of investment
CP	commercial paper
CPF	Central Provident Fund (Thailand)
CREBA	Chamber of Real Estate and Builders Associations (Philippines)
CRISIL	Credit Rating Information Services of India Limited
CTS	contract to sell
DFI	development finance institution
DGF	dedicated gilt fund
DRR	debenture redemption reserve
DSC	defense saving certificate
DST	documentary stamp tax
DVP	delivery versus payment
ECB	external commercial borrowing
EMI	equal monthly instalment
EPF	Employees Provident Fund (Malaysia)
Fannie Mae	Federal National Mortgage Association (FNMA, US)
FAST	Fully Automated System for Tendering (Malaysia)
FCA	foreign currency account
FEBC	foreign exchange bearer certificate
FESB	foreign exchange stabilization bond (Korea)
FIB	federal investment bond
FIDF	Financial Institution Development Fund (Thailand)
FIES	Family Income and Expenditure Survey
FII	foreign institutional investor

forex	foreign exchange
FRA	Financial Sector Restructuring Authority (Thailand)
Freddie Mac	Federal Home Loan Mortgage Corporation (US)
FRN	floating-rate note
FRTN	floating-rate Treasury note
FSB	Financial Supervisory Board (Korea)
FSC	Financial Supervisory Commission (Korea)
FXTN	fixed-rate Treasury note
GDP	gross domestic product
GHB	Government Housing Bank (Thailand)
GIC	General Insurance Corporation (India)
GICHF	GIC Housing Finance (India)
Ginnie Mae	General Home Mortgage Corporation (US)
GNP	gross national product
GO	general obligation
GOCC	government-owned and controlled corporation
GOI	Government of India
GSB	Government Savings Bank (Thailand)
GSE	government-sponsored enterprise
GSIS	Government Service Insurance System (Philippines)
H&CB	Housing and Commercial Bank (Korea)
HBFC	House Building Finance Corporation (Pakistan)
HDFC	Housing Development Finance Corporation Ltd. (India)
HDMF	Home Development Mutual Fund (Philippines)
HFC	housing finance company
HFI	housing finance institution
HGB	Hak Guna Bangunan (right to build, Indonesia)
HGU	Hak Guna Usaha (right to exploit, Indonesia)
HIGC	Home Insurance Guarantee Corporation (Philippines)
HLURB	Housing and Land Use Regulatory Board (Philippines)
HUDCC	Housing and Urban Development Coordinating Council (Philippines)
HUDCO	Housing and Urban Development Corporation (India)
ICICI	Industrial Credit and Investment Corporation of India
ICRA	Investment Information and Credit Rating (India)
IDBI	Industrial Development Bank of India
IFCI	Industrial Finance Corporation of India
IFCT	Industrial Finance Corporation of Thailand

IFTS	Interbank Funds Transfer System (Malaysia)
IHFD	Islamic house financing debt
IHFC	International Housing Finance Company Limited (Pakistan)
IMF	International Monetary Fund
IPO	initial public offering
ISE	Islamabad Stock Exchange (Pakistan)
IT Act	Income Tax Act (India)
ITC	investment trust company
ITMC	investment trust management company
JSX	Jakarta Stock Exchange (Indonesia)
KDEI	Indonesian Depository and Clearing Agency
KLIBOR	Kuala Lumpur interbank offered rate
KLSE	Kuala Lumpur Stock Exchange (Malaysia)
KMCRC	Korea Management Consulting and Credit Rating Corporation
KPEI	Kliring Penjaminan Efek Indonesia
KSD	Korea Securities Depository
KSDA	Korea Securities Dealers Association
KSE	Korea Stock Exchange; Karachi Stock Exchange (Pakistan)
KSEI	Kustodian Sentral Efek Indonesia
L/C	letter of credit
LIBOR	London interbank offered rate
LIC	Life Insurance Corporation (India)
LICHF	LIC Housing Finance (India)
LSE	Lahore Stock Exchange (Pakistan)
LTCP	long-term commercial paper
MARC	Malaysian Rating Corporation Berhad
MBS	mortgage-backed security
MBSB	Malaysia Building Society Berhad
MGS	Malaysian government security
MMMF	money market mutual fund
MOF	Ministry of Finance
MOFE	Ministry of Finance and Economy (Korea)
MSB	monetary stabilization bond (Korea)
MTN	medium-term note
NBFC	nonbank finance company
NBFI	nonbank financial institution
NDMFB	National Debt Management Fund bond (Korea)

NDTL	net demand and time liabilities
NHA	National Housing Authority (Philippines)
NHB	National Housing Bank (India)
NHF	National Housing Fund (Korea)
NHMFC	National Home Mortgage Finance Corporation (Philippines)
NICE	National Information and Credit Evaluation Corporation (Korea)
NIT	national investment trust
NLC	National Land Code of 1965 (Malaysia)
NRI	nonresident Indian
NSDL	National Securities Depository Limited (India)
NSE	National Stock Exchange (India)
NSP	National Shelter Program (Philippines)
OCB	overseas corporate body
OECD	Organization for Economic Cooperation and Development
OMO	open-market operation
OTC	over the counter
OTC-FIS	Over-the-Counter Fixed Income Service system (Indonesia)
PACRA	Pakistan Credit Rating Agency
Pag-ibig	Home Development Mutual Fund (Philippines)
PBB	Pajak Bumi dan Bangunan (land tax, Indonesia)
PBC	People's Bank of China
PCD	Philippine Central Depository Inc.
PD	primary dealer (or principal dealer)
p/e	price-earnings
PHIBOR	Philippine interbank offered rate
PLMO	Property Loan Management Organization (Thailand)
PML	primary mortgage lender
PPF	Public Provident Fund (India)
PPh	Pajak Penghasilan (capital gains tax, Indonesia)
PPN	Pajak Pertambahan Nilai (value-added tax, Indonesia)
PSE	Philippine Stock Exchange
PSU	public-sector unit
PSU bond	public-sector undertaking bond
PTC	pass-through certificate
RAM	Rating Agency Malaysia Berhad
RBI	Reserve Bank of India
repo	repurchase agreement

RM	Malaysian ringgit
Rmb	renminbi
ROSS	Registry of Scripless Securities (Philippines)
Rp	rupiah
Rs	rupee
SBI	Sertifikat Bank Indonesia
SBP	State Bank of Pakistan
SC	Securities Commission (Malaysia)
SCRA	Securities Contracts (Regulation) Act of 1956 (India)
SD	satellite dealer
SEBI	Securities and Exchange Board of India
SEC	Securities and Exchange Commission
SET	Stock Exchange of Thailand
SFC	Securities Futures Commission (Korea)
SGL	subsidiary general ledger
SGLA	subsidiary general ledger account
SHCIL	Stock Holding Corporation of India Ltd.
SIBOR	Singapore interbank offered rate
SLR	statutory liquidity reserve
SMC	Secondary Mortgage Corporation (Thailand)
SMI	secondary mortgage institution
SML	secondary mortgage lender
SOE	state-owned enterprise
SPC	special-purpose corporation
SPEEDS	Sistem Pemindahan Elektronik Untuk Dana dan Sekuriti (Electronic Transfer System for Funds and Securities, Malaysia))
SPV	special-purpose vehicle
sq m	square meter(s)
SRO	self-regulating organization
SRR	statutory reserve requirement
SSB	Securities Supervisory Board (Korea)
SSC	special savings certificate
SSS	Social Security System (Philippines)
SSTS	Scripless Securities Trading System (Malaysia)
SSX	Surabaya Stock Exchange (Indonesia)
STCI	Securities Trading Corporation of India
STCP	short-term commercial paper

STFB	short-term federal bond
STRIPS	separate trading of registered interest and principal of securities
TBDC	Thai Bond Dealing Center (Thailand)
T-bill	Treasury bill
TFC	term finance certificate
T-note	Treasury note
TP Act	Transfer of Property Act (India)
TRIS	Thai Rating and Information Services (Thailand)
UHLP	Unified Home Lending Program (Philippines)
ULC	Urban Land Ceiling Act (India)
USAID	US Agency for International Development
UTI	Unit Trust of India
VAT	value-added tax
WAPDA	Water and Power Development Authority (Pakistan)
WDM	wholesale debt market
WMA	Ways and Means Advances (India)
YTM	yield-to-maturity