

# Securitization of the U.S. Mortgage Market: Progress and Pitfalls, with Lessons for Japan

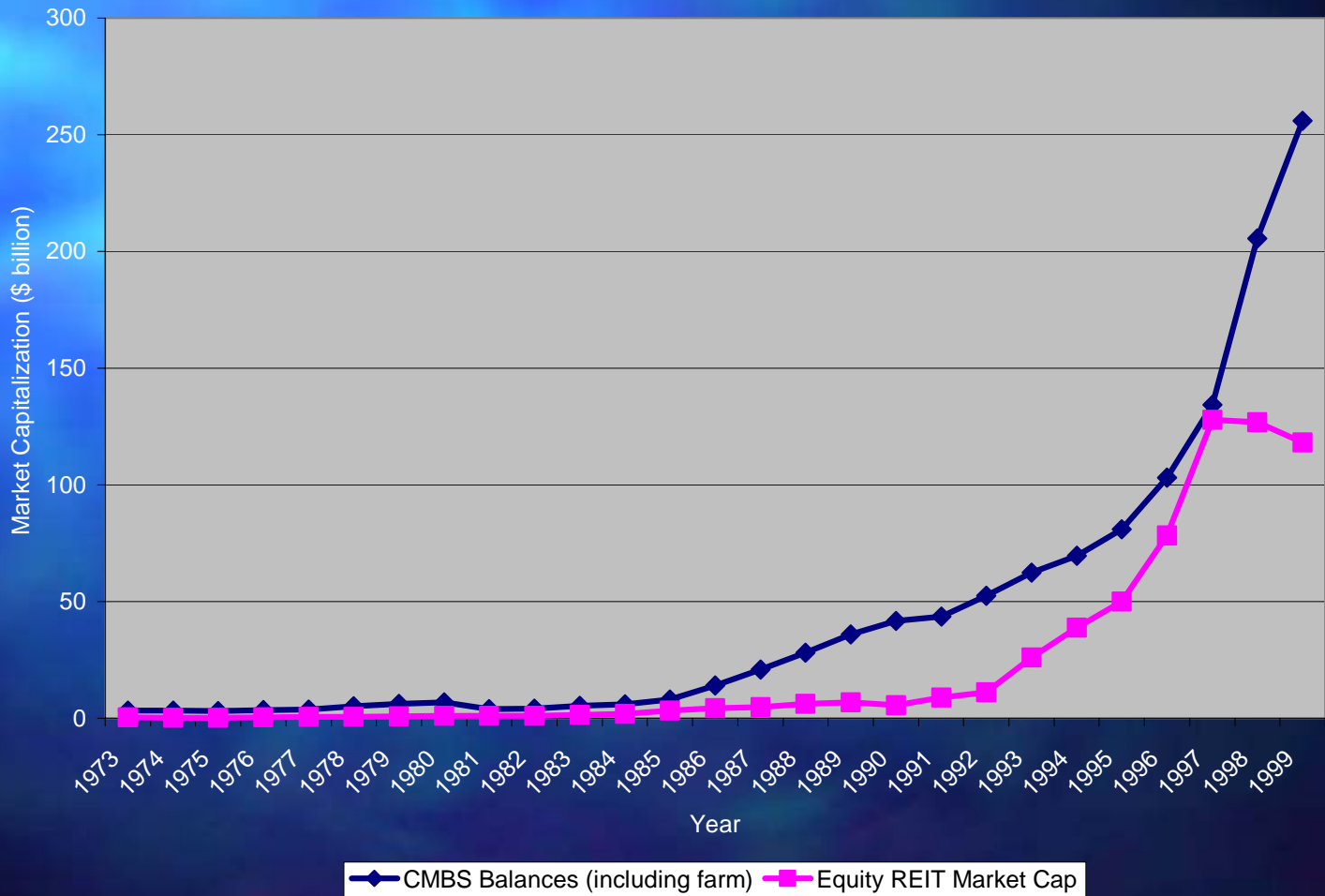
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Kerry D. Vandell

University of Wisconsin-Madison

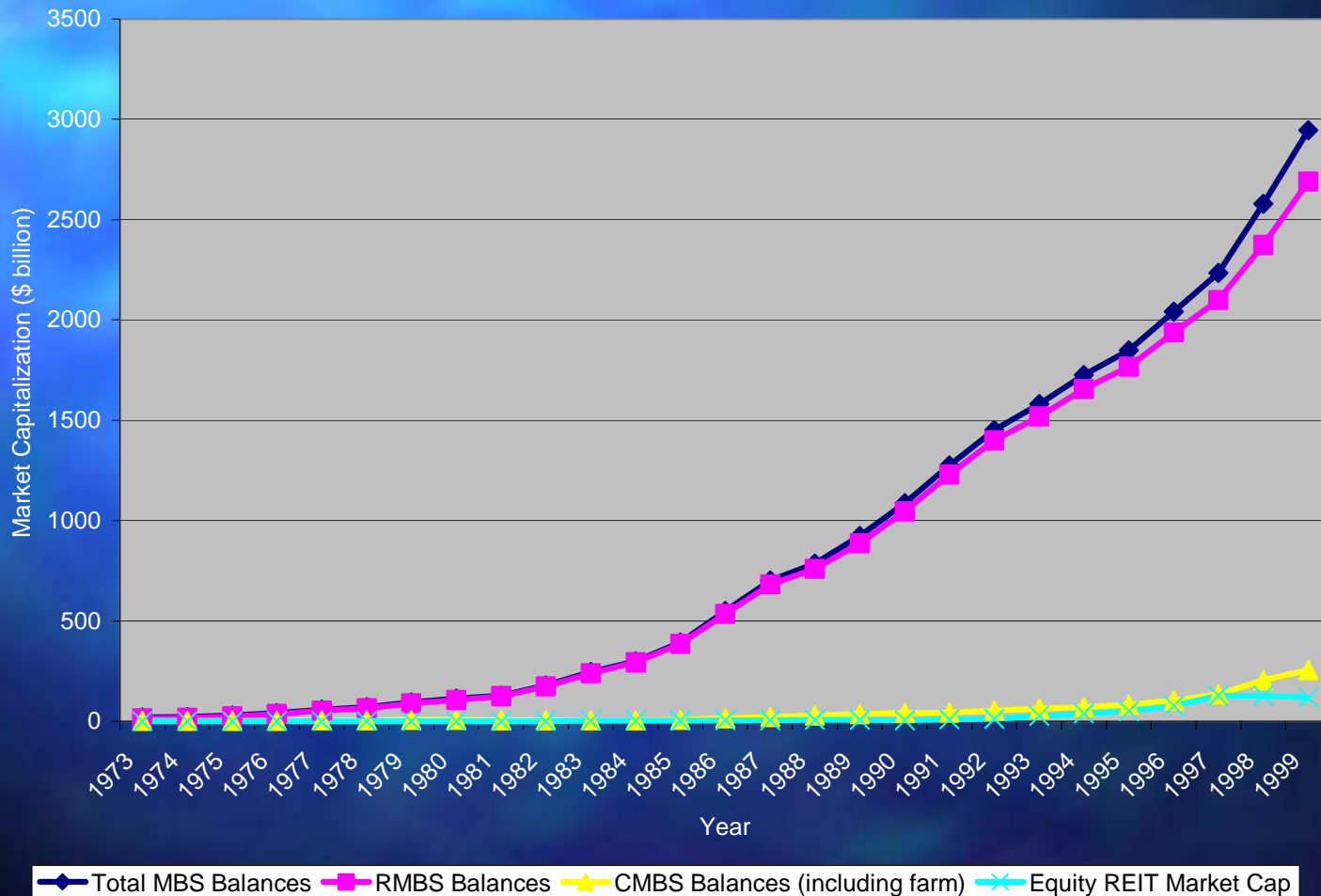
# Growth in the Public Real Estate Markets in the U.S.:

## REIT vs. CMBS 1973-1999

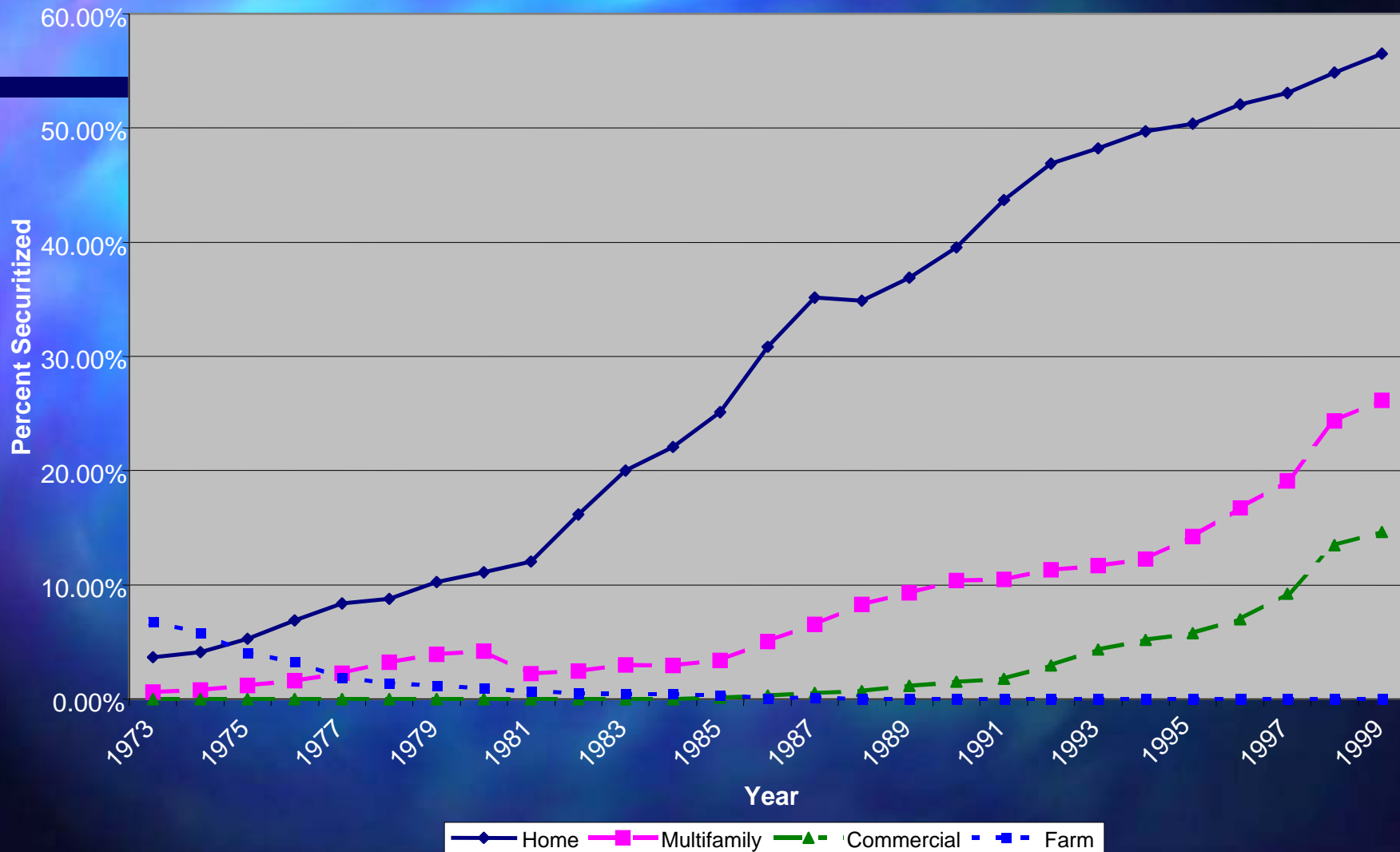


# Growth in the Public Real Estate Markets in the U.S.:

## REIT vs. All MBS 1973-1999



# Trends in Mortgage Securitization in the U.S.: 1973-1999



# The Residential Mortgage-Backed Securities (RMBS) Market: Themes in Development

<b>Year</b>	<b>Type Loans</b>	<b>Issuer</b>	<b>Type Securities</b>	<b>Investors</b>
<b>1968</b>	FHA/VA	GNMA	Passthrough	Institutional investors
<b>1970's</b>	+ Conventional	+ FNMA/ FHLMC	Passthrough	+ Individuals (mutual funds)
<b>1980's</b>	+ "Non-conforming" + "Sub-prime"	+ Private conduits	+ Strips + CMO's + PAC/TAC bonds + Floaters/ inverse floaters + Other derivatives	+ Individuals (REITs) + Investment companies + Hedge funds
<b>1990's</b>				

# Reasons for Rapid Development and Spread of RMBS Market

- Homogeneity of design, terms, underwriting standards
- Large database on performance and terms
- Mortgage insurance and guarantees
- Governmental or quasi-governmental issuers (GSE's)
- Need for product
- Regulatory and legal structures put in place
- Products were profitable

# The Commercial Mortgage-Backed Securities (CMBS) Market: Themes in Development

<b>Year</b>	<b>Type Loans</b>	<b>Issuer</b>	<b>Type Securities</b>	<b>Investors</b>
<b>1970</b>	FHA multifamily	GNMA	Passthrough	Institutional investors
<b>1970's</b>	+ FHA multifamily	+ FNMA/ FHLMC	Passthrough	Institutional investors
<b>Late 1970's</b>	+ Conventional multifamily	+ FNMA/ FHLMC	Passthrough	Institutional investors
<b>Mid 1980's</b>	+ Office, multifamily, industrial, retail, healthcare	+ Private conduits	+ Senior/ subordinate	Institutional investors
<b>Early 1990's</b>	+ All commercial property types	+ RTC (until 1993)	+ Senior/ subordinate	+ Individuals (REITs) + Investment companies

# The Commercial Mortgage-Backed Securities (CMBS) Market: Themes in Development (continued)

Year	Type Loans	Issuer	Type Securities	Investors
Mid 1990's	+ All commercial property types	+ Private conduits	+ Senior/subordinate + Strips + CMO's + PAC/TAC bonds + Floaters/inverse floaters + Other derivatives	+ Individuals (REITs) + Investment companies + Hedge funds
Late 1990's	+ All commercial property types	+ Private conduits	+ Senior/subordinate Fewer derivative tranches	Institutional investors Investment companies Exit of hedge funds and REITs

# Reasons for Limited and Delayed Development and Spread of CMBS Market

- Heterogeneity of design, terms, underwriting standards
- Little publicly available data on performance and terms
- No mortgage insurance or guarantees
- Little influence of GSE's (RTC later and temporary)
- No felt need for product until "capital crunch"
- Risk-based capital standards gave no incentive
- Regulatory and legal restrictions
- Products not sufficiently profitable at first

# Creation and Spread of Mortgage Derivatives: 1983-1998

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- Collateralized Mortgage Obligations (CMO's)
- "Strips"
- Senior/subordinate structure
- PAC/ TAC bonds
- Floaters/ inverse floaters

# Requirements for Development and Spread of Derivatives

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- Sufficient understanding of price behavior
- Perception of need
- Investment permitted
- Profitability

# "Bumps in the Road": The Dangers of Derivatives

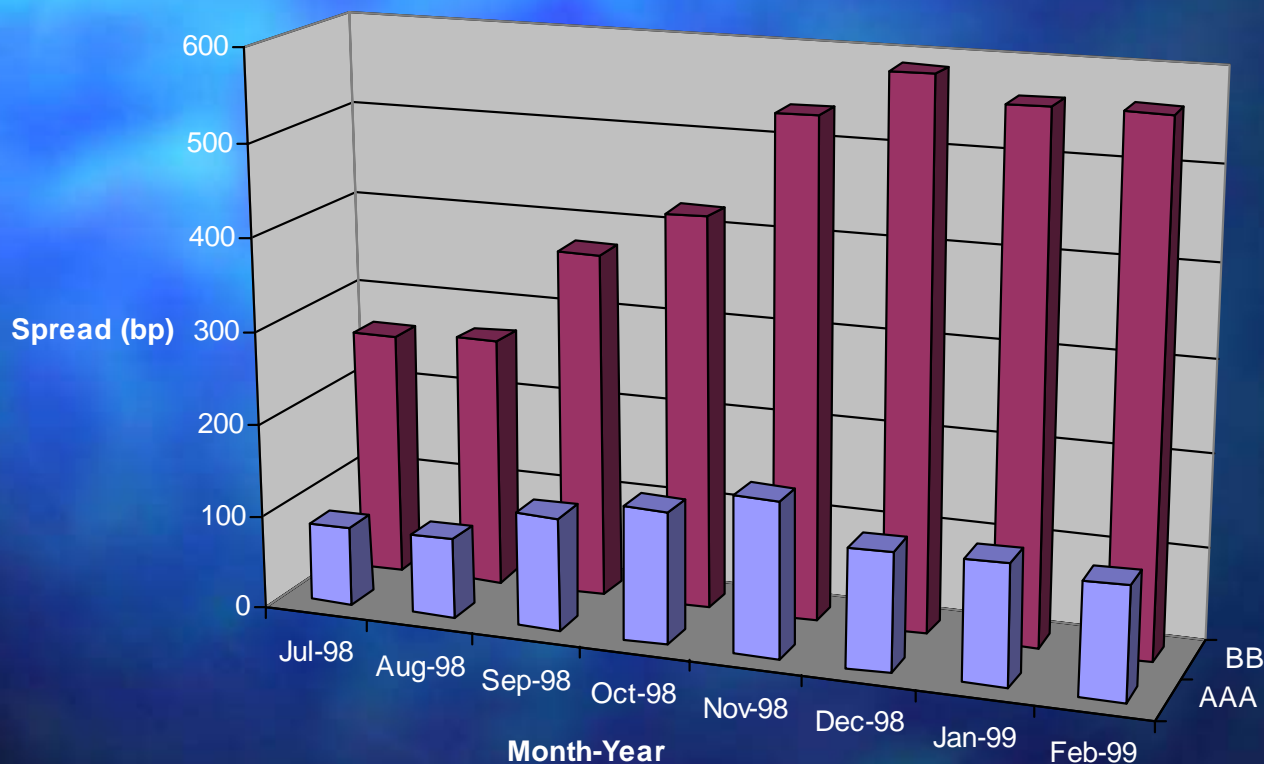
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- Events reminded us of risk
  - Losses to investors
  - (More worrisome) stability of entire economic system
- Examples:
  - *The Askin Funds and Orange County (1994)*
  - *Criimi Mae, Ocwen, and Nomura (1998)*
  - *Long Term Capital Management (1998)*

# CMBS Spreads vs. Treasuries

## Fall 1998

CMBS Spreads - July 1998 to February 1999



# "Bumps in the Road": The Dangers of Derivatives (continued)

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- Aftermath of the Sept. 1998 Meltdown
  - MBS market paralyzed for a time
  - New players
  - Gradual return to equilibrium, though higher spreads
  - Simpler offerings
  - Investigation by Fed, recommendations for reform
- Potential new problem - Fed use of Fannie Mae, Freddie Mac MBS for open market operations

# Some Lessons for Japan

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- Lack of GSE's in Japan will hinder development of RMBS
- Resolution and Collection Corp (RCC), without powers of RTC in the U.S., will be less able to clear backlog of bad debt.
- Lack of mortgage performance data will hinder progress.
- Lack of standardization in mortgage types, terms, securities will hinder progress.

# Some Lessons for Japan (continued)

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- Rarity of non-recourse loans (NRLs) will hinder progress.
- Continued administration of interest rates will hinder progress.
- Lack of mortgage insurance will hinder progress.
- Even after reform, continuing barriers and high transaction costs will continue to hinder progress.

# Some Lessons for Japan (continued)

- SPC Law still restrictive.
- Reforms of March 1998 restricted sale of lower-rated tranches, which will continue without opportunity funds, hedge funds, other "junk" purchasers.
- Lack of external means of credit support such as letters of credit, etc. will hinder progress.
- Focus soon will be on comparative efficiency of securitized vs. private market. Ratings will be important.

# Some Lessons for Japan (continued)

- Focus will also turn toward allocation of risk -- Long Term Capital Management-type problems will occur in Japan.

**Conclusion: Japan must “get the signals right” to promote the development of mortgage securitization. The “signals” include not just the right rules and institutional structures to promote competition, but also the right set of risk-taking incentives to insure the market does not merely enrich the few in the short run but benefits the whole of Japanese society in the long run.**