THE OPPORTUNITIES IN JAPAN FOR RAISING CAPITAL FOR INVESTMENT IN DOMESTIC REAL ESTATE MARKET THROUGH SECURITIZATION

by

Hitoshi Yagi

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Signature of the author ______________________
Hitoshi Yagi
Department of Urban Studies and Planning
August 31, 1988

Certified by ______________________
James McKellar
Professor, Department of Urban Studies and Planning
Thesis Supervisor

Accepted by ______________________
Michael Wheeler
Chairman
Interdepartmental Degree Program in Real Estate Development

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Hitoshi Yagi
Boston, Massachusetts

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ABSTRACT

This thesis examines the applicability of real estate investment trusts (REITs) to the Japanese real estate capital markets at present.

In the fully diversified financial markets in the U.S., the real estate capital markets are an important element and have succeeded in diversifying their fund-raising resources. The real estate capital markets there have established a bridge to the securities markets through securitization.

In Japan, on the other hand, there have been no successful efforts to date to create a bridge between the real estate and other capital markets, although the need to have such a bridge is perceived. Fund-raising for the real estate business in Japan depends largely on bank loans because of the reliable bank loan markets at the moment and less-developed securities markets.

REITs are financial instruments created by Congress to provide an investment opportunity in real estate for small investors in the U.S. capital markets. While REITs showed a resurgence from the most recent recession by changing their asset composition, they still present such risks as price volatility.

From the standpoints of interested parties in Japan, the need to introduce REITs themselves was not found, although there is a clear need to develop the securities markets as a fund resource for the real estate business. Additionally, it seems rather difficult to develop the present security investment trusts (SITs) in Japan into potential REITs because of fundamental differences between SITs and REITs.

Finally, the author concluded that the applicability of REITs to present-day Japanese real estate capital markets is low, although the need for these markets to create some sort of bridge to other capital markets is perceived.

Thesis Supervisor: Dr. James McKellar

Title: Professor, Urban Studies and Planning

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INTRODUCTION

This thesis examines the applicability of Real Estate Investment Trusts (REITs) to Japanese real estate capital markets as one form of introducing securitization.

By way of background, Japanese real estate capital markets have long been marking time with minimal innovations having been introduced. Recent enthusiasm for real estate development, however, has provoked intense discussion concerning real estate financing and, in particular, the use of some form of securitization. For example, Japan National Railways (JNR) is proposing to issue mortgage-backed securities to fund the future development of their extensive land holdings.

Looking at the United States, there has been an established history of securitization in real estate financing. As one example, Congress legislated REITs in 1960 to allow investors corporate type ownership of real estate without double taxation. Assets in the REIT industry expanded rapidly from just $1 billion in 1968 to a peak of $20.5 billion in 1974. Subsequently, however, mortgage REITs were profoundly affected by the increase of interest rates in the mid-1970's, and many of them collapsed, with the total assets of the industry reduced to $12.0 billion in 1975. Learning from this experience, the REIT industry changed the composition of its assets and began to see a resurgence of popularity, with total assets amounting to $23.7 billion in

1986 [82]. That REITs are a strong and viable force in U.S. capital markets can be seen from that fact that, while the Tax Reform Act of 1986 badly affected real estate investment as a whole, REITs were able to turn the provisions of this act to their advantage and emerge even healthier than before. In fact, the share price index of REITs as reported by the National Real Estate Association (NAREIT) in 1986, at $113.47, was the highest since 1972.

It is the author's contention that the applicability of REITs to Japanese real estate capital markets is subject to question, and, in fact, that the chances for a transfer of such instruments is low. On the other hand, there is a need to integrate Japanese real estate capital markets with the stock and bond markets and perhaps introduce some form of securitization that is suitable for the culture of the Japanese banking system.

A. Organization and Methodology

The basic framework of this article is a comparative examination of the U.S. and Japanese real estate capital markets.

The examination of the U.S. real estate capital markets in Chapter I includes an overview of the structure of the financial markets and an examination of the capital and real estate capital markets. The position of the real estate capital markets within the larger markets and the sources of capital for real estate investment are especially highlighted.

Through this process, the issue of securitization will be addressed.

In Chapter II, the Japanese real estate capital markets are examined and compared with their U.S. counterparts. By investigating the differences and similarities between the two, we may generate an initial assessment of the feasibility of securitization in Japan.

Chapter III addresses the U.S. experience with REITs. The reasons why REITs emerged, declined and/or developed in the U.S. as well as the characteristics, history and performance of REITs are closely reviewed.

Finally, in Chapter IV, the applicability of REITs to the Japanese real estate capital markets is discussed. The Japanese situation is described and analyzed from the standpoint of the requisite elements for the application of REITs, including the necessity for and potential benefit of adopting REITs. After sifting through the conditions necessary for such an adoption, the virtues and risks of REITs' applicability are weighted.

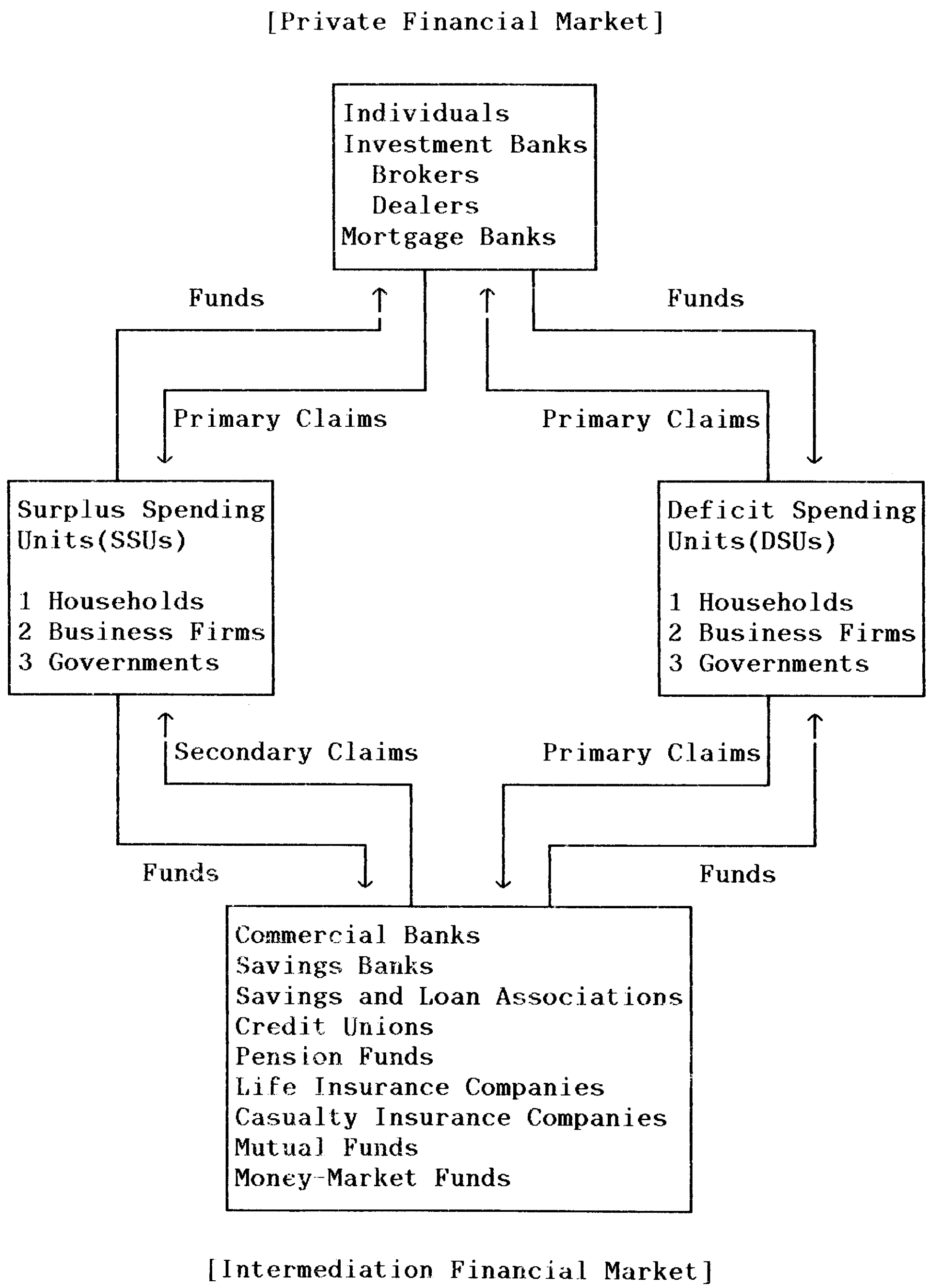
B. Basic Terminology

Before entering into the body of this paper, the author would like to detail the terminology used in this thesis.

Financial markets in the original sense are "places where assets and liabilities are traded" [62]. Functionally, these financial markets are divided into the **Private Financial Market** and the **Intermediation Financial Market** (Exhibit 1).

EXHIBIT 1

Financial Markets



(Source: Kaufman. [50])

In the Private Financial Market, funds flow from Surplus Spending Units (SSUs) to Deficit Spending Units (DSUs) either directly or indirectly through the aid of a broker or a dealer. In the Intermediation Financial Market, on the other hand, funds are transferred from SSUs to DSUs through financial intermediaries [50] [122].

The main difference between the two lies in the type of claims connecting the parties. Claims in the Private Financial Market are primary claims only. The broker or dealer does not affect the characteristics of the claim at all. But the broker or the dealer may also be an underwriter in most cases, and the underwriters determine the characteristics of the claim. Claims in the Intermediation Financial Market, on the other hand, include primary and secondary claims, and the financial intermediaries influence the direct relation between SSUs and DSUs. This basic classification is applicable to both the U.S. and Japanese financial markets.

Financial markets are further divided into money markets and capital markets. The former treats instruments of less than one year's duration and the latter those of more than one year. This thesis will concentrate on capital markets, as the focus of real estate finance is long-term capital needs.

Securitization can be defined as the process by which illiquid financial assets and liabilities are transformed into capital market instruments. For example, real estate assets or mortgage debts are transformed into mortgage-backed securities which are circulated in the capital markets.

Finally, the term **disintermediation** refers to a situation in which deposits are removed from a financial intermediary, such as a savings and loan association, and invested in other assets, generally for the purpose of obtaining higher yields.

CHAPTER I

U.S. REAL ESTATE CAPITAL MARKETS

A. U.S. Financial Markets

Exhibit 2 shows the framework of the U.S. financial markets as a system. Under the multiple bank regulatory bodies, there are nationwide nondepository institutions and regional depository institutions.

1. One of the features of this framework is the separation of investment banking from commercial banking and other depository institutions, as stipulated in the Banking Act of 1933, the Glass-Steagall Act. This act was promulgated to restore confidence in the commercial banking system, which had been severely damaged by the Depression [50]. At present, this separation is meeting with a fair amount of harsh criticism, and it appears that this situation may change in the near future.

2. The Intermediation Financial Market in the U.S. is founded on the dualistic (federal and state) system of chartering, organization and regulation [14]. Based on the establishment of the National Bank Act of 1864, this system has a long tradition in the U.S. and is zealously protected by the banking industry [50] [112]. Under this dualistic system, strict geographical limitations are placed on depository institutions.

3. Partially as a result of the dualistic system, a characteristic of financial regulation in the U.S. is its

EXHIBIT 2

U.S.Financial System

Federal Reserve System

Federal Reserve Board : 12 regional banks

Depository Institutions (Regionally based)

- Commercial Banks
  - National Chartered Banks
  - State Chartered Banks
- Foreign Banks
- Mutual Saving Banks
- Savings and Loan Associations
- Credit Unions
- Non-Bank Banks

Non-Depository Institutions

- Non-Bank Banks
- Finance Companies
- Insurance Companies
  - Life Insurance
  - Casualty Insurance
- Investment Banking and Brokerage Firms
- Mortgage Banking Companies
- Pension Funds
- Open End Investment Companies

Bank Regulatory Bodies

- Federal Reserve Board
- Federal Home Loan Bank Board
- Federal Deposit Insurance Corporation (FDIC)
- Federal Savings and Loan Insurance Corporation (FSLIC)
- Federal Asset Disposition Agency (FADA)
- Comptroller of the Currency
- State Bank Regulators

(Source: M.A.Louargand)

multiplicity [14]. Not only do federal level regulations apply; state level regulations also exist. Further, at both the federal and state levels, there is a multiplicity of regulators. The most important of these at the federal level are the Federal Reserve System, the Federal Deposit Insurance Corporation, the Federal Home Loan Bank Board, the Federal Savings and Loan Insurance Corporation, the National Credit Union Administration, and the Securities and Exchange Commission [14].

4. As the multiplicity of regulators would indicate, there are many financial institutions in the U.S. As of 1983, for example, private depository institutions alone included 15,400 banks, 3,513 savings and loan associations, 534 mutual savings banks and 19,203 credit unions. And these numbers do not even include nondepository financial institutions [14] [111]. The existence of so many financial institutions means that the financial industry is minutely divided and each institution specializes in its own line of business.

5. From the above, it can be said that the U.S. financial markets are based on specialized financial institutions. The separation of investment from commercial banking, and the regional limitations placed on depository institutions are clear examples of this. Additionally, this specialized form of business requires a multiplicity of regulations.

B. U.S. Capital Markets

The volume of the U.S. capital markets is shown in Exhibit 3. The markets are divided into debt and equity. It is noteworthy that the debt total (45% of total asset outstandings) and the equity total (55%) are almost balanced. These figures indicate that borrowers and lenders participate in both the Private Financial Market and the Intermediation Financial Market to an almost equal extent at present.

In 1986, the U.S. real estate capital markets, including the mortgage market (19.3%) and the real estate equity market (38.7%) amounted to more than half (58.0%) of the capital markets. Additionally, it should be noted that residential markets, including mortgage and equity, accounted for 37.3% of all outstandings. Thus, the real estate capital markets are important elements in the U.S. capital markets.

C. U.S. Real Estate Capital Markets

The U.S. real estate capital markets examined in this thesis contain four segments: the residential mortgage market, the residential real estate equity market, the commercial mortgage market, and the commercial real estate equity market.

1. Residential Mortgage Market

a. Market overview

The primary market is sustained by such suppliers as savings and loan associations (S&Ls), mutual banks and commercial banks. Mortgage companies make a number of mortgage loans and arrange for other institutions to purchase

EXHIBIT 3

U.S. Capital Markets
(1988, Outstandings)

(Billion Dollars)

	Amount			Share
Total Debt	6,700			44.7%
Mortgage		2,900		19.3%
(Commercial Mortgage)			900	6.0%
(Residential Mortgage)			2,000	13.3%
Corporate Debt Issues		1,450		9.7%
Gross Public Debt		2,350		15.7%
Total Equity	8,300			55.3%
Corporate Equity		2,500		16.7%
Real Estate Equity		5,800		38.7%
(Commercial Equity)			2,200	14.7%
(Residential Equity)			3,600	24.0%
Total Claims	15,000			100.0%

(Source: Salomon Brothers, Federal Reserve, M.A. Louargand.)

blocks of mortgages. The expansion of the market has been rapid. In 1986, residential mortgage outstandings amounted to $1,700 billion, while new originations of home mortgages totaled $442.3 billion.

The secondary market has also shown rapid development. Among newly originated residential mortgages, 54% were securitized in the first quarter of 1987, though only a third of residential mortgage outstandings had been securitized ($582 billion out of $1,713 billion) [89].

b. Market development

The traditional stable relationship between regional lenders and borrowers was brought to its knees in the 1970's. This was primarily because of extreme fluctuations in interest rates. For example, the rate of three-month treasury bills ranged from 3% to 13% between 1972 and 1980. Savings institutions, which had supplied capital through regulated deposits, floundered in their fund-raising efforts because of competition from higher interest instruments in the Private Financial Market. The fact that 88% of the deposits in S&Ls were regulated demand deposits in 1966 may indicate the necessity of these efforts [50]. Savings institutions offered interest-rate-sensitive depository accounts and were caught between the high short-term depository rate and the low long-term mortgage rate. This was the yield curve squeeze, which caused the creation of new types of financing such as the Adjustable Rate Mortgage (ARM). An ARM is one way to transfer the interest risk on financial institutions to the borrower.

Nonetheless, the difficulty in effecting immediate changes of assets and liabilities for savings institutions caused a shortage of funds, and a new financial structure in the secondary market was mandatory. Securitization arose. As Roulac said, "securitization had emerged to fulfill its potential to provide a sustained, reliable source of financing for real estate" [97].

c. Securitization of residential mortgages

In the securitization of residential mortgages, the roles played by three agencies, namely, the Federal Home Loan Mortgage Corporation (FHLMC), the Government National Mortgage Association (GNMA), and the Federal National Mortgage Association (FNMA), are important.

Basically, FHLMC acts as a conduit for the securitization of conventional mortgages originated by S&Ls. It purchases these mortgages from the S&Ls and sells them in the form of participation certificates (PCs) to investors in the capital markets. Similarly, GNMA performs the guarantor function for the securitization of Federal Housing Administration (FHA)-insured and Veteran Administration (VA)-guaranteed mortgages that are originated primarily by mortgage bankers. FNMA, as a portfolio investor, provides a secondary market outlet for mortgage bankers' originations of both conventional and FHA/VA mortgages [44].

In 1981, FHLMC initiated its Guarantor Program and FNMA its Mortgage-Backed Security (MBS) program. Under these, an S&L would exchange its holdings of seasoned low-rate mortgage loans with the two agencies for their guaranteed mortgage pass-through securities. Both programs have been successful, and, during 1982, loans amounting to more than $30 billion were swapped into mortgage securities. On the other hand, GNMA initiated a new program called GNMA II, which allowed more flexible mortgage-backed securities. As a result, the S&Ls improved the liquidity and marketability of their mortgage-related assets.

This growth of MBS reduced geographic and institutional barriers to the flow of funds because MBSs are traded on the nationwide capital markets. Consequently, the housing sector is no longer solely dependent on interest-sensitive deposit flows to fund building activity. At the same time, the growing demand for securities in the secondary mortgage market has caused MBS yields to converge with those of other debt instruments. For example, the yield differential between GNMA pass-throughs and AAA-rated utility bonds narrowed from 50 basis points in July 1983 to parity in January 1984 [18]. The decline in MBS yields caused primary mortgage yields to be lower than they otherwise would have been.

In short, under the strong influence of these three agencies, securitization of residential mortgages has continued to improve the fund-raising ability of financial institutions such as S&Ls as well as reduce the borrower's payment liability. The security provided by the real estate capital markets, such as GNMA pass-throughs, received almost the same evaluation from the capital markets as did the top-rated bonds.

2. Residential Real Estate Equity Market

Residential real estate equity consists of down payments and the accumulated equity of a house as its value appreciates. This market has little relevance to market development because residential real estate equity remains as simple ownership of the property, and no devices to break up this simple ownership are used. Thus, a close examination of it is outside the scope of this thesis.

3. Commercial Mortgage and Equity Markets

a. Market overview

In the primary market, the major asset holders are commercial banks, life insurance companies and savings institutions, holding 40.2%, 26.8% and 21.6%, respectively, of mortgage outstandings in 1986. The size of the primary market in this segment is only half that of the residential mortgage market.

b. Market development

The secondary commercial mortgage market is also smaller than that of residential mortgages. Of the $800 billion of commercial mortgage outstandings, only somewhat more than $20 billion (2.5%) had been securitized by 1986 [122]. This low ratio reflects the difficulties involved in securitization of commercial real estate. This is because commercial mortgages, as compared to residential ones, are heterogeneous in nature. Each commercial mortgage is quite different in terms of the collateral, mortgage period, rate and size. Because securitization begins with pooling mortgages that are homogeneous in terms of the above conditions, securitization of commercial mortgages initially encountered some roadblocks. To overcome this difficulty, buildings with similar characteristics, such as higher cash flow or groups of buildings, were selected in the process of securitization.

The first transaction involving commercial mortgage securitization was in early 1984, when Salomon Brothers structured and fractionalized a $970 million in floating rate financing for Olympia & York (O&Y), the Canadian developer [66]. The sum involved was about four times more than had been raised in any previous real estate financing. The notes issued were supported solely by the real estate values of the properties, which were three prime Manhattan office buildings, and were without recourse to O&Y. The notes were unrated and initially priced at 175 basis points over the 91-day Treasury Bill rate. It was placed privately with 40 institutional investors.

A rating system was devised for securitization in 1984, when Standard & Poor's (S&P) published criteria under which it would rate nonrecourse commercial mortgage securities. Based on these rating criteria, obtaining AA, Fisher Brothers

Financial Realty Company raised $160 million through the first commercial mortgage bond collateralized by a multi-tenanted office building in Midtown Manhattan. In this transaction, the credit support was added by the Union Bank of Switzerland to assure the ratings. Subsequently, O&Y again raised $200 million, with 59 Maiden Lane in the lower Manhattan financial district as collateral. With this transaction, in addition to the credit support, bondholders were further protected by a liquidity reserve of approximately 25% of annual debt service to cover the possibility of late rent payments. It is noteworthy that these transactions reduced the cost of funding. In O&Y's case, it was about 60 basis points cheaper than traditional real estate financing at the time; in Fisher's case, 50 to 60 basis points were saved [66].

In considering the development of the commercial mortgage market, it should be noted that there was not any shortage of funds in the market caused by interest rate fluctuations. This situation is quite different from the residential mortgage market, in which a shortage of funds gave rise to securitization. The commercial mortgage market has traditionally been sustained by commercial banks. At times of interest rate fluctuation, commercial banks could avoid most difficulties by i) borrowing from federal funds, ii) drawing Eurodollar deposits from overseas branches and/or iii) issuing commercial paper though affiliated companies.

Clearly this situation is quite different from the residential mortgage market, which, as we have mentioned, is sustained by S&Ls. The evolution of securitization in the commercial mortgage market derived not from the necessity to avoid disintermediation, but from the desire of certain borrowers to obtain cheaper and stabler funds.

The securitization of commercial real estate still accounts for only a small proportion of new originations at present. It seems that this is partly because securitization in this sector did not arise from the essential requirement that the intermediaries change the asset and liability composition, as was the case with residential mortgages, but because of a preference for cheaper and stabler money.

c. Commercial real estate equity market

Traditionally, the owner has supplied the equity. The owner is, therefore, directly concerned with the management of the real estate to protect the equity investment and usually holds the asset for a substantial period of time in expectation of capital appreciation along with a tax-sheltered cash flow.

A new type of commercial real estate equity, however, based on the avoidance of direct concern with the property, has emerged. Real estate syndication is one example of this. In real estate syndication, managing the real estate is the responsibility of the general partner or developer. Management is separated from the ownership of the syndication shares.

The concept of syndication is not particularly new. In fact, mortgage bonds amounting to more than $10 billion were sold in the 1920's, and a significant amount of real estate syndication activity took place in New York in the 1950's. Thus, the emergence of syndication in the 1970's and 1980's, represents a third wave of such activity [95].

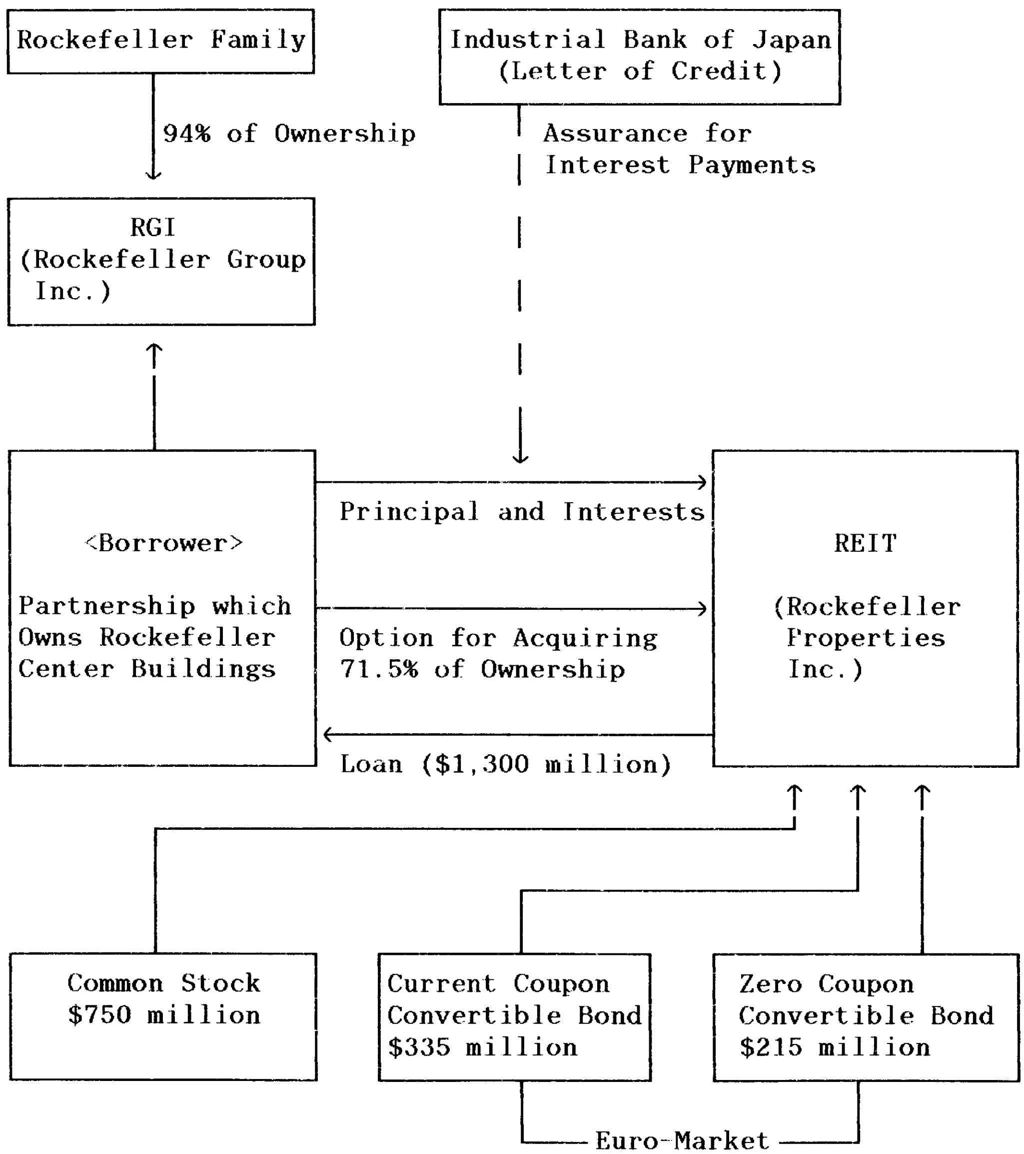
There are two types of syndication. One is the privately offered syndication, and the other is the publicly offered one using capital markets such as publicly registered partnerships. Between 1970 and the end of 1983, the public real estate syndication business raised $12 billion. Publicly registered partnerships were responsible for $4.7 billion in 1983, while private partnerships accounted for $1.7 billion [95].

Real estate investment trusts (REITs) are one type of real estate syndication. In a REIT, the investor's funds are trusted to the trustee, and the trustee invests funds in real estate through equity or mortgage. In this case, the management of the real estate is handled by professional third parties, and the investor does not have to be concerned with it.

An example of a REIT is shown in Exhibit 4. Rockefeller Properties Inc. acted as the REIT in this case. Through issuing common stock and convertible bonds, the REIT raised funds from a wide range of investors in capital markets, including Euro-markets, and provided the huge sum of $1.3

EXHIBIT 4

REIT in Rockefeller Center Buildings



(Source: Takita. [114])

billion to the borrower. The other point to be noted is that credit support for interest payments was added by the Industrial Bank of Japan. It seems that the success of this transaction was due to the facts that REITs avoid double taxation for the investor and that the credit support adds reliability to the REIT's securities, such as the common stock and the convertible bonds. The capital for real estate investment, thus, was raised, in the stock and bond markets. REITs are examined more closely in Chapter III.

4. An Overview of Real Estate Capital Markets

The four submarkets of the real estate capital markets developed along different paths. It can be said, however, that they all started with the simple relationship between the lender and the borrower and evolved to add the securities markets as fund resources.

In the residential mortgage market, the yield curve squeeze brought about the development of new loan structures such as ARM, with its adjustable rate. This meant that the interest risk, which had previously been borne by the financial intermediaries, was transferred to the borrower. The characteristics of the traditional mortgage and the new mortgage are similar in that both are based on the one-on-one relationship between the lender and the borrower. However, because of disintermediation, securitization emerged and changed this relationship. Securitization allows the securities markets to be added as fund resources, and the credit risk on the financial intermediaries can be transferred to those markets.

In the commercial mortgage market, the traditional mortgage was also based on the one-on-one relationship between the lender and the borrower. However, the increase of the sums required by financing as well as the increase in the cost of that financing brought about a preference for cheaper and stabler funds by certain borrowers. This caused securitization to appear, and this connected the commercial mortgage market with the securities markets.

In the commercial real estate equity market, new types of ownership, such as real estate syndications, developed. The difference between the traditional and the new types lies in whether ownership is accompanied by direct concern with the asset. Traditional ownership involves this concern; the new type does not. Among the various kinds of new ownership arrangements, devices such as public syndications add the capital markets as fund resources. REITs are included in this type of syndication.

Finally, there is the residential equity market, and this is the only one of the four in which no development has been seen.

5. The Influence of Securitization on Real Estate Capital Markets

Securitization in the real estate capital markets has had a wide-ranging influence, as outlined below.

a. Specialization

Traditionally, the real estate capital markets were based on a direct relationship between a lender and a borrower. When mortgages are securitized, however, the roles played by the participants in the markets become more complicated and specialized. Such roles include origination/servicing, packaging/issuing, investment, and guaranteeing [18] [70]. Based on the integration of these functions, securitization provides alternatives both for investors in capital markets and borrowers in real estate markets.

b. Integration

The integration of the real estate capital markets into the more developed capital markets, which have closer relationships with the stock and bond markets, has led to a broader, more stable financial base for mortgages and lower primary rates [18].

c. Volatility

At the same time, this integration brings volatility into the real estate markets. The price of the real estate is expressed by the security price in the capital markets, which is different from that determined by traditional appraisal. Regardless of the performance of the actual real estate, the security backed by it is affected by other securities circulated in the capital markets [97].

d. Appropriate projects

The increased flow of capital into the real estate capital markets creates a situation in which unsound real estate projects may become the object of securitization. Thus, unsound loans may be originated and sold off as mortgage-backed securities. A possible result of this situation would be the increased probability of defaults in the underlying mortgages that serve as collateral for the securities [18]. As protection against this sort of situation, however, the rating system would work to avoid unsound mortgage-based securities.

D. Conclusion

The following conclusions can be reached from the above discussion.

1. The participants in the U.S. financial markets are specialized in their lines of business and separated by region.

2. In the U.S., the Intermediation Financial Market and the Private Financial Market are well balanced. This means that borrowers and lenders participate in the two markets to almost the same extent at present and it seems that the cost or the effectiveness of the two is almost equal.

3. Real estate capital markets are important elements in the U.S. capital markets. This means that developments in

these markets, developments such as securitization, affect the capital markets as a whole.

4. The U.S. real estate capital markets developed from the traditional mortgage and equity type to a new type. These markets succeeded in diversifying their fund resources by using capital markets. In short, securitization integrated the traditional real estate capital markets and connected them to the securities markets.

CHAPTER II

JAPANESE REAL ESTATE CAPITAL MARKETS

A. Japanese Financial Markets Compared to the U.S.

The Japanese financial system, as shown in Exhibit 5, has the following main features.

1. The business activities of the banking and securities sectors are separated by the Securities and Exchange Law of 1948. This separation is quite similar to the separation between investment and commercial banks in the U.S. This is because the Securities and Exchange Law was originally promulgated to effect the same ends as the Glass-Steagall Act. It is to be noted, however, that the extent of the separation is different in the two nations. Banks in Japan are allowed to operate closely with securities companies in forming syndicates to purchase government debt, banks can hold corporate debt and banks can hold corporate equity. These activities exceed those permitted to the U.S. commercial banks [14].

2. Financial institutions are divided into short-term (city banks, regional banks, etc.) and long-term (long-term credit banks, trust banks, etc.) financial institutions. This arrangement is unique to Japan. Basically, this situation exists because the manufacturing industries, right after World War II, needed a huge amount of capital for equipment investment. The long-term financial institutions, in particular, were expected to supply funds to these industries

EXHIBIT 5

Financial Institutions in Japan

- [Central Bank]
  - The Bank of Japan
- [Private Financial Institutions]
  - [Commercial Banks]
    - City banks (13)
    - Regional banks (63)
    - Foreign banks (54)
    - [Financial Institutions for Foreign Exchange]
      - Specilized foreign exchange bank (1)
  - [Specialized Financial Institutions]
    - [Financial Institutions for Long-term Credit]
      - Long-term credit banks (3)
      - Trust banks (7)
    - [Financial Institutions for Small Business]
      - Mutual loan and savings banks (71)
      - National Federation of Credit Assoc.
        - — Credit assoc. (470)
      - National Federation of Credit Coop.
        - — Credit coop. (489)
      - National Federation of Labor Credit Assoc.
        - — Labor credit assoc. (47)
      - Shoko Chukin Bank
    - [Financial Institutions for Agriculture, Forestry and Fishery]
      - Norin Chukin Bank
        - Credit federations of agricultural coop. (47)
          - — Agricultural coop. (4,738)
        - Credit federations of fishery coop. (35)
          - — Fishery coop. (1,695)
        - Federations of forestry coop. (46)
          - — Forestry coop. (2,139)
      - National Coop. Insurance Federation of Ag. Coop.
        - — Coop. insurance federations of ag. coop. (47)
  - [Others]
    - [Insurance Companies]
      - Life insurance companies (21)
      - Non-life insurance companies (22)
    - Money market dealers (6)
    - Securities finance corp. (3)
    - Securities companies (258)
    - Housing loan companies (7)
- [Government Financial Institutions]
  - [Banks]
    - Export-import Bank of Japan
    - Japan Development Bank
  - [Public Corporations]
    - People's Finance Corp.
    - Small Business Finance Corp.
    - Small Business Credit Insurance Corp.
    - Medical Care Facilities Finance Corp.
    - Environmental Sanitation Business Finance corp.
    - Agriculture, Forestry, and Fishery Finance Corp.
    - Housing Loan Corp.
    - Hokkaido and Tohoku Development Corp.
    - Local Public Enterprise Finance Corp.
    - Okinawa Development Finance Corp.
  - [Others]
    - Overseas Economic Coop. Fund
    - Post offices (22,330)
    - Special accounts (4)

(Note: Figures denote the number in 1977.)
(Source: Viner. [117])

with long-term fixed rates.

Recently, however, this separation has become unclear because of deregulation, and both long-term and short-term financial institutions deal with a broader range of borrowers and have a broader maturity range in their overall loan portfolios as well relying on a broader maturity range of sources of funds than before.

3. The number of financial institutions in Japan is rather small compared to the U.S. As of 1983, there were 86 banks, 996 institutions dealing in transactions with small businesses, and agriculture, forestry and fishery concerns and several hundred others [111]. In order to establish a financial institution, it is essential to obtain the permission of the Ministry of Finance (MOF), and this is not easy.

4. The regulation system for financial institutions is quite different from that in the U.S. In Japan, since the main power to regulate is vested in the national government, rather than the dualistic system that obtains in the U.S., it is more unified in structure. The MOF and the Bank of Japan (BOJ) are the major regulators, followed by the Ministry of Posts and Telecommunication (MPT). Regulation by these institutions is far more extensive than that in the U.S., and it is not designed to encourage mortgages or any type of consumer credit, but is more aimed at accommodating industrialization, export-led economic growth and a high

savings rate among individuals [14].

5. It is noteworthy that the Depression had a great influence on regulation in the U.S. Regulation was designed primarily to restrain competition to limit risk, especially among banks; competitive restraints were closely monitored, and a system of financial disclosure was enforced.

Compared to this, Japanese regulation is far more extensive. It covers direct as well as indirect finance because security markets are not well enough developed to have monitoring or disclosure systems, i.e., there are no elements to sustain the security markets other than regulation.

6. The security markets are not well developed in Japan compared to those in the U.S., which cover the complete term structure from very short to very long [14]. The Japanese long-term securities markets have not developed until recently for two reasons. One is that government budgets were balanced and deficits were too small to necessitate developing the securities markets as sources of funds. The other is that, traditionally, most corporations have not used the securities markets as a source of funds. This is because only the largest corporations were allowed to issue securities under strict limitations.

7. It is noted that the government plays a more significant role in Japan's Intermediation Financial Market, as compared to that in the U.S., via an extensive Postal Savings System (PSS) and other public institutions. The PSS

was established as a fund-raising institution for public investment. The distributions of the total flow of funds to final borrowers amounted to as much as 62.9% for deposit banks.

The Japanese financial markets are, compared to these in the U.S., based on more unified participants. Not only do the long-term and short-term financial institutions play similar roles, but the banks and securities companies are tied to one another. Furthermore, extensive regulation is placed on both direct and indirect finance by unified regulators, such as MOF and BOJ.

B. Japanese Capital Markets Compared to the U.S.

In Japan, the term "capital markets" is not clearly defined. For the purpose of this thesis, we will temporarily ascribe this term to long-term financial markets that involve the submarkets shown in Exhibit 6. There are several differences between the Japanese and the U.S. capital markets (see Exhibit 3 for reference).

1. Equity and Debt, or Direct and Indirect

In Exhibit 6, the real estate equity market does not appear at all. In fact, it is very difficult to find data for equity other than stock in Japan. The reason for this is as follows.

In the Japanese capital markets as well as the real estate capital markets, there is no concept of classifying finance as equity and debt. Originally, this classification

EXHIBIT 6

Japanese Capital Markets
(1988, Outstandings)

(100 Million Yen)

	Amount	Share
Loan	3,465,566	38.1%
(Residential)	644,705	7.1%
Corporate and Municipal Bonds)	1,339,650	14.7%
(Local Government Bonds)	205,263	2.3%
(Public Corporation Bonds)	448,149	4.9%
(Bank Debentures)	469,960	5.2%
(Industrial Bonds)	96,719	1.1%
(Convertible Bonds)	66,188	0.7%
(Yen-Denominated Foreign Bonds)	53,371	0.6%
Government Bonds	1,366,106	15.0%
Stock	2,930,280	32.2%
Total	9,101,602	100.0%

(Note)

1. Stock is the total of market price of the listing on the stock exchanges.
2. Data for government bonds is 1985.

(Source: Bank of Japan, Ministry of Finance) arose from the essential needs of the borrower and the lender as to whether the principal should be returned or not after a certain period. Finance in which funds should be returned after a certain period is called debt, while that not returned is called equity. In the U.S., this classification seems to be approved by the writers of almost all literature concerning finance.

On the contrary, almost all Japanese literature is based on a classification of finance as indirect or direct. Originally, this classification was made on the basis of whether the funds were raised through financial intermediaries or not. Finance with intermediaries is called indirect, while that without is called direct.

It would appear that this difference in the way of thinking comes from the fact that the Japanese markets are less developed than those in the U.S. What this means is that the main issue in Japan is still "how" to raise the funds, rather than "what" the raised funds mean for the borrower and "what" the invested funds mean for the investor. Thus, it is very difficult to make a direct comparison between the U.S. and Japanese capital markets.

2. Direct and Indirect Finance

a. Japanese capital markets compared to the U.S. capital markets

As already mentioned, the difference between indirect and direct finance is whether the funds are raised through banks or raised directly from the capital markets. The ratio of indirect to direct finance is defined as the ratio of bank loans or mortgages to the total of stocks and bonds. In Japan, this ratio was 4:6 in 1986, while in the U.S., it was 3:7 in 1988. These figures mean that indirect finance is used more in Japan than in the U.S. The main reason for this is outlined below.

The influence of banks on the Japanese economy is still significant. First of all, the close relationship between Japanese banks and companies has considerable importance. A significant example of this relationship can be seen in the business groups led by several large banks; these are called ZAIBATSU in Japanese. As of 1985, the six largest of these groups, led by Mitsui Bank, Mitsubishi Bank, Sumitomo Bank, Fuji Bank, Dai-ichi Kangyo Bank and Sanwa Bank, respectively, controlled more than 60% of the companies listed in the first section of the Tokyo Stock Exchange (TSE). (The TSE is composed of two sections. The first section is for the larger and superior companies; the second section is for the others.) In addition to this, the total assets of these six business groups amounted to around 15% of the Japanese economy as a whole in 1986. Because the banks that head up these groups have significant sway over their members' fund-raising, the influence of these banks can hardly be neglected. The close relation between banks and securities companies makes this influence possible.

b. Indirect and Direct Finance in Japan

As was mentioned above, the ratio of indirect to direct finance in Japan was 4:6 in 1986. This figure, however, needs to be examined more closely.

i. Data issue

Exhibit 6 shows the stock price as the current market price in order to compare the capital market sizes of Japan and the U.S. This is misleading in terms of the fund-raising activities of the companies because current market price does not mean the amount of capital raised by the companies, i.e., the issuing price, because the market price is usually higher than the issuing price as long as the company's operations are going well.

Actually, most of the literature written in Japan uses the issuing price to express the fund-raising activity of a company [14] [111] [112]. Based on this, stock amounted to only 1.6% of total asset outstandings in Japan in 1984, while bank loans made up 30.1% [112]. From these figures, then, we can conclude that bank loans are still a significant fund-raising alternative in present-day Japan. The figures also back up the above assertions about the strong influence of Japanese banks on the Japanese economy.

ii. Accessibility of the stock and bond markets

The fact that only the large companies can afford to tap the stock and bond markets in Japan is of considerable significance. One reason for this is that there are a number of strict limitations on the issuance of stocks and bonds in Japanese capital markets [83]. For example, in issuing straight bonds, the company must use full collateral and meet strict and detailed criteria. Furthermore, the coupon rate of the bond is determined by a rigid interest-rate system based on long-term government bonds, and it does not reflect the financial condition of the company at all.

With stocks, there are also strict regulations, such as the financial condition of the company, limitation of the issuance volume, and the minimum profit distribution. These restrictions, although their original purpose was to ensure the healthy development of the market, have discouraged all but the largest and most influential of Japanese firms from issuing stocks and bonds. Consequently, for smaller companies, indirect finance is not a marginal source of fund-raising.

Thus, it can be said that the influence of the bank intermediary in Japan is still quite significant as compared to that in the U.S. and that the stock and bond markets are still not accessible to Japanese companies, unless they are very large firms.

3. Bank Debentures (Long-term Financial Institutions)

Bank debentures in Japan should be noted. Long-term financial institutions include long-term credit banks and trust banks. The former issue one-year discount debentures and five-year debentures, the outstandings of which amounted to 46,969 billion yen at the end of 1986. The trust banks also fund with one-year and five-year negotiable loan trust certificates. The funds raised by these debentures and certificates are provided to industry in the form of long-term corporate business loans. In this way, the long-term financial institutions in Japan have, in part, mitigated the necessity for direct corporate funding from the capital markets.

C. Japanese Real Estate Capital Markets

Japanese real estate capital markets appear to be based only on corporate business loans in the capital markets. It is noteworthy that the relationship between the real estate capital markets and other capital markets is not necessarily and explicitly recognized in present-day Japan. Only the large companies raise funds in the capital markets for real estate transactions. This is because Japanese real estate capital markets are not so well developed as those in the U.S., where securitization makes it possible for the real estate business to raise funds in the stock and bond markets through MBS.

There are three ways to picture the size and characteristics of the Japanese real estate capital markets. The first is through real estate business loans, the second is through real estate secured loans, and the third is through housing loans.

1. Real Estate Business Loans (Corporate Loans to the Real Estate Industry)

In order to picture the Japanese real estate capital markets, it will be useful to examine the real estate business loan, i.e., a corporate loan to the real estate industry. In this view of the markets, it is to be noted that real estate business undertaken by segments of industry other than the real estate industry is excluded. In short, real estate business loans do not entirely explain the Japanese real estate capital markets.

At the end of 1986, loans to the real estate industry in Japan amounted to 27,845.2 billion yen, and this represented 10.4% of the total outstanding loan balance to all industries (Exhibit 7). The growth rate of loan outstandings of the real estate industry between 1985 to 1986 was 135.1%, second only to the service sector. From the figures shown in Exhibit 7, steady growth is evident.

The balance sheet shown in Exhibit 8 illustrates the dependency on debt and equity of all classes of Japanese real estate companies. In this connection, the following two points are worthy of note.

The first is that the amount of outstanding loans is significant in most of the companies. In the majority of cases, the long-term loan payable amounts to around 30% of total liabilities and net worth. On the contrary, stocks account for only around 3% and bonds less than 1%. This shows

EXHIBIT 7

Share of Real Estate Industry
in Loans and discounts
(Outstandings)

(100 Million Yen)

	1984	1985	1986	'86/'85
Real Estate	167,647	206,049	278,452	135.1%
(Share)	7.5%	8.4%	10.4%	
Individuals	218,372	234,684	268,917	114.6%
(Share)	9.8%	9.6%	10.0%	
Services	213,825	259,239	610,489	235.5%
(Share)	9.6%	10.6%	22.8%	
Manufacturers	594,090	619,086	609,317	98.4%
(Share)	26.6%	25.2%	22,7%	
Wholesale, Retail	483,680	509,056	520,637	102.3%
(Share)	21.7%	20.7%	19.4%	
Total *	2,230,435	2,455,046	2,680,207	109.2%
	100.0%	100.0%	100.0%	

(Note) * Includes other industries

(Source: Bank of Japan)

EXHIBIT 8

(Real Estate Industry)
Average Balance Sheet by Size of Companies
(1986)

(100 Million Yen)

Capital Size	Total	Less Than 2	2–5	5–10	10–50	50 –100	100 –1000	More Than 1000
Number of Companies	167,916	54,835	48,587	29,690	30,109	2,894	1,637	164
Accumulated Share # of Companies	100.0%	32.7%	61.6%	79.3%	97.2%	98.9%	99.9%	100.0%
Asset Total	100.0%	4.6%	11.7%	19.6%	44.0%	56.6%	81.3%	100.0%
Current Asset	341,990	14,434	26,136	22,814	85,832	40,181	89,367	63,227
	54.3%	49.8%	58.5%	46.0%	55.8%	50.8%	57.3%	53.8%
Fixed Asset	286,964	14,495	18,565	26,716	67,771	38,726	66,489	54,202
	45.6%	50.0%	41.5%	53.9%	44.0%	49.0%	42.6%	46.1%
Deferred Charges	766	51	14	20	279	136	179	87
	0.1%	0.2%	0.0%	0.0%	0.2%	0.2%	0.1%	0.1%
Asset Total	629,720	28,980	44,715	49,550	153,882	79,043	156,035	117,516
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Current Liabilities	310,838	15,161	22,701	23,148	83,341	35,999	78,033	52,454
	49.4%	52.3%	50.8%	23.6%	54.2%	45.5%	50.0%	44.6%
Long-Term Liabilities	265,204	13,149	19,270	21,012	54,437	40,921	67,225	49,190
	42.1%	45.4%	43.1%	21.4%	35.4%	51.8%	43.1%	41.9%
(Bonds Payable)	4,383	0	0	0	0	0	93	4,290
	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	3.7%
(Loan Payable)	202,511	10,707	16,001	14,548	44,191	35,736	51,060	30,268
	32.2%	36.9%	35.8%	14.8%	28.7%	45.2%	32.7%	25.8%
Net Worth	53,678	670	2,744	53,890	16,103	2,122	10,777	15,871
	8.5%	2.3%	6.1%	55.0%	10.5%	2.7%	6.9%	13.5%
(Capital)	22,221	518	1,311	1,749	6,682	1,917	3,710	6,333
	3.5%	1.8%	2.9%	1.8%	4.3%	2.4%	2.4%	5.4%
Liabilities & Net Worth Total	629,720	28,980	44,715	98,050	153,881	79,042	156,035	117,515
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

(Source: Ministry of Finance)

the heavy dependence on bank loans for capital resources.

The second is the difference in the balance sheets depending on the size of the companies. There is a great variation in the composition of long-term liabilities. In the real estate industry, the benefits of issuing stocks and bonds to raise capital are restricted to large companies. The share of bonds payable is almost nil for most of the industry except for the large companies, while the share of capital, i.e., stock, is around 3%, also except for large companies. This situation can be explained by the high standards for issuing stocks and bonds. In Japan, in order to issue a corporate stock or bond, a company must meet certain standards, such as required collateral, asset size or dividends.

Consequently, balance sheets show that only large companies can meet the criteria for using the stock or bond market for fund-raising, and that for most of the real estate companies, fund-raising through these markets is marginal.

This is quite different from the U.S., where, as we have seen in Chapter I, the real estate capital markets have established a wide pipeline to other capital markets through securitization. In the U.S., the fundamental market freedom makes it possible to draw capital from the stock and bond markets into the real estate market.

2. Real Estate Secured Loans

Another way to understand Japanese real estate capital markets is through the real estate secured loan, which includes housing loans and some corporate business loans. It is to be noted that the funds raised through real estate secured loans are not always used to invest in real estate. They are often used instead for regular business operations.

The characteristics of the real estate secured loan are similar to those of the U.S. commercial and residential mortgages. These loans, however, do not have any secondary market as the U.S. mortgage markets do.

Exhibit 9 shows three striking trends in the area of secured loans: a) the share of real estate secured loans decreased from 31% of outstanding in 1976 to 22% in 1986; b) during the same period, the share of unsecured loans increased from 32% to 40%; c) the shares of other types of loans remained the same. The main reason for these changes seems to be that the bargaining power of the borrower became stronger as the loan market softened and borrowers became less inclined to pay large fees (usually 0.3% of the amount borrowed) just to register the collateral.

3. Housing Loans

The characteristics of housing loans in Japan are quite similar to those of the U.S. residential mortgage. Taking the house or land as collateral, the financial institutions provide capital. However, there is a great difference as well, and that is the fact that the U.S. residential mortgage market has a well-developed secondary market, while that in Japan is still in its infancy. Basically in Japan, there is

EXHIBIT 9

Outstanding Loans
of All Banks
by Kind of Collateral

(100 Million Yen)

	Loans Secured by Real Estate & Floating Mortgages		Loans Secured by Stocks & Bonds		Other Secured Loans		Loans With Third Party's Guarantee		Unsecured Loans		Total	
1976	238,279	31%	16,677	2%	67,744	9%	190,899	25%	244,206	32%	757,807	100%
1977	260,802	31%	16,522	2%	78,599	9%	213,323	26%	262,056	32%	831,305	100%
1978	285,572	31%	18,972	2%	86,731	9%	237,510	26%	290,577	32%	919,364	100%
1979	311,319	30%	19,495	2%	95,538	9%	278,628	27%	332,554	32%	1,037,536	100%
1980	326,784	29%	20,303	2%	103,806	9%	309,301	27%	384,497	34%	1,144,693	100%
1981	341,864	28%	21,384	2%	115,879	9%	334,529	27%	423,938	34%	1,237,596	100%
1982	374,654	26%	23,354	2%	131,442	9%	384,122	26%	541,830	37%	1,455,404	100%
1983	397,437	24%	25,075	2%	145,248	9%	435,388	27%	636,945	39%	1,640,098	100%
1984	422,075	23%	31,558	2%	163,090	9%	502,146	27%	736,313	40%	1,855,189	100%
1985	470,190	22%	39,292	2%	179,928	8%	574,211	27%	894,088	41%	2,157,714	100%
1986	521,404	22%	47,163	2%	229,765	10%	631,746	26%	970,846	40%	2,400,930	100%

(Note) 1. Including loans of overseas branches.
2. Other secured loans are loans secured by deposits, etc.

(Source: Bank of Japan)

no thought of passing the original loan on to third parties who do not know the loan's characteristics at all. Without any credit support system, such as rating or credit support, it is very difficult to pass the credit risk to third parties, i.e., investors in the capital markets.

a. Primary market

The most important characteristic of housing loans in Japan is the dominant role played by the public sector--the Housing Loan Corporation (HLC)--in the market (Exhibit 10). The outstandings of housing loans by the HLC in 1986 were 23,034.5 billion yen, or 35.7% of all housing loan outstandings in that year. Established in 1950, the HLC supplies long-term, low cost funds for housing. It should be noted that, because the HLC is a public corporation funded totally by the government, rather than a private financial institution that raises funds through interest-sensitive deposits, it does not need to worry about selling the existing loans. This seems to be the reason that an efficient secondary market has not yet been developed in Japan. At the same time, the rapid increase of loans by private financial institutions, particularly city banks, has been noteworthy of late. In 1986, 26.3% of all new housing loans were originated by the city banks and the amount of these loans was triple the level in 1981. This increase can be partly explained by the tendency of city banks to engage in more retail banking. It is also believed (Asahi Shimbun, May 25, 1988) that city banks

EXHIBIT 10

Housing Loans (New Loans)

(100 Million Yen)	1981 Amount	1981 Share	1986 Amount	1986 Share	Growth '86/'81
Banking Accounts OF All Banks	23,074	26.1%	53,654	37.6%	232.5%
City Banks	12,291	13.9%	37,561	26.3%	305.6%
Regional Banks	9,529	10.8%	14,418	10.1%	151.3%
Trust Banks	334	0.4%	174	0.1%	52.1%
Long-Term Credit Banks	919	1.0%	1,500	1.1%	163.2%
Trust Accounts of All Banks	3,571	4.0%	3,745	2.6%	104.9%
Sogo Banks	5,603	6.3%	8,999	6.3%	160.6%
Shinkin Banks	8,231	9.3%	10,671	7.5%	129.6%
The Zenshinren Bank	429	0.5%	108	0.1%	25.2%
Credit Cooperatives	1,503	1.7%	1,367	1.0%	91.0%
The National Federation of Credit Cooperatives	297	0.3%	595	0.4%	200.3%
Labor Credit Associates	2,224	2.5%	3,321	2.3%	149.3%
Agricultural Cooperatives	0	0.0%	0	0.0%	0.0%
Mutual Insurance Federations of Agricultural Coop	26	0.0%	2	0.0%	7.7%
Life Insurance Companies	5,815	6.6%	6,098	4.3%	104.9%
Non-Life Insurance Companies	220	0.2%	638	0.4%	290.0%
Housing Loan Companies	11,108	12.6%	22,108	15.5%	199.0%
The Housing Loan Corporation	26,170	29.6%	31,546	22.1%	120.5%
Total	88,271	100.0%	142,852	100.0%	161.8%

Housing Loans (Outstandings)

(100 Million Yen)	1981 Amount	1981 Share	1986 Amount	1986 Share	Growth '86/'81
Banking Accounts OF All Banks	130,834	28.4%	172,566	26.8%	131.9%
City Banks	65,977	14.3%	100,505	15.6%	152.3%
Regional Banks	56,854	12.4%	64,228	10.0%	113.0%
Trust Banks	2,511	0.5%	2,149	0.3%	85.6%
Long-Term Credit Banks	5,490	1.2%	5,683	0.9%	103.5%
Trust Accounts of All Banks	24,878	5.4%	23,827	3.7%	95.8%
Sogo Banks	29,036	6.3%	34,761	5.4%	119.7%
Shinkin Banks	41,925	9.1%	47,309	7.3%	112.8%
The Zenshinren Bank	3,372	0.7%	1,372	0.2%	40.7%
Credit Cooperatives	5,990	1.3%	6,220	1.0%	103.8%
The National Federation of Credit Cooperatives	1,409	0.3%	1,413	0.2%	100.3%
Labor Credit Associates	11,833	2.6%	14,216	2.2%	120.1%
Agricultural Cooperatives	18,853	4.1%	18,835	2.9%	99.9%
Mutual Insurance Federations of Agricultural Coop	696	0.2%	567	0.1%	81.5%
Life Insurance Companies	24,270	5.3%	35,608	5.5%	146.7%
Non-Life Insurance Companies	1,532	0.3%	2,386	0.4%	155.7%
Housing Loan Companies	37,813	8.2%	55,280	8.6%	146.2%
The Housing Loan Corporation	127,790	27.8%	230,345	35.7%	180.3%
Total	460,231	100.0%	644,705	100.0%	140.1%

(Source: Bank of Japan)

intend to establish a foothold in the coming securitization of real estate, particularly that of housing loans. As already mentioned, housing loans are homogeneous in their loan characteristics, so this area seems to be the place to start with securitization.

b. Emergence of the secondary market

At present, it is a fact that there is not yet an efficient secondary market in the Japanese housing loan market. The examples given below, however, surely represent efforts in that direction.

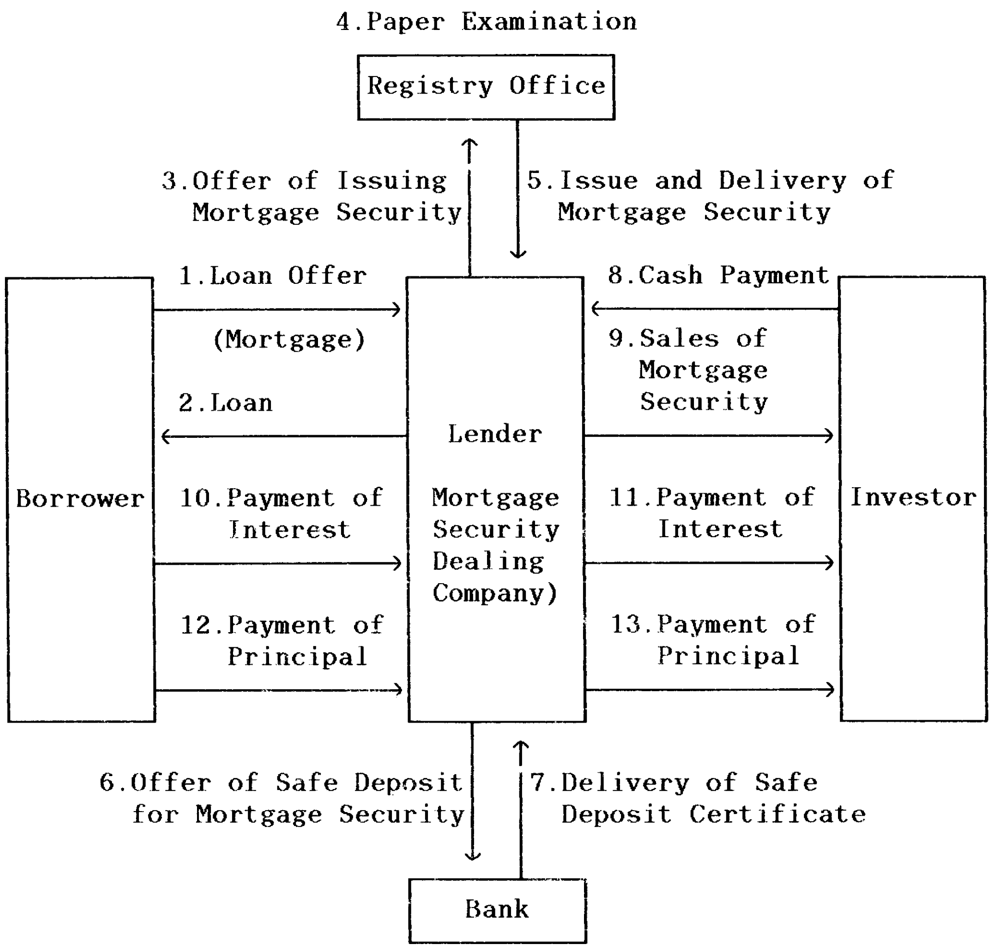
i. Mortgage security

The basic framework of this system is that the original lender asks the government registry office to issue mortgage security to prove the real estate secured loan. The original lender receives the mortgage security from the registry office and sells smaller units of the secondary securities, backed by the mortgage security, to the final investors (Exhibit 11). The issuance of a mortgage security changes the characteristic of the loan credit from a personal debtor-creditor relationship to impersonal obligation of the debtor. Consequently, liquidity is added to the real estate secured loan.

Although liquidity is high, the issuance is an intricate and costly task. The system for this kind of transaction was established in 1931 and has not changed since. Originally, the system was set up to replace real estate secured loans

EXHIBIT 11

Structure of Mortgage Security



(Source: Nippon Credit Bank)

Issuance of Mortgage Security

(Billion Yen)

Year	'75	'76	'77	'78	'79	'80	'81	'82	'83	'84	'85	'86
Outstandings	1	2	3	2	2	2	7	15	42	256	392	598

(Source: Ministry of Law)

held by short-term banks with loans by long-term banks, not to make fund-raising easier for the real estate owner or to circulate the mortgage security in the market [115]. Recently, such issuances have increased, but have not yet reached a level that could be called a secondary market.

ii. Housing mortgage certificates

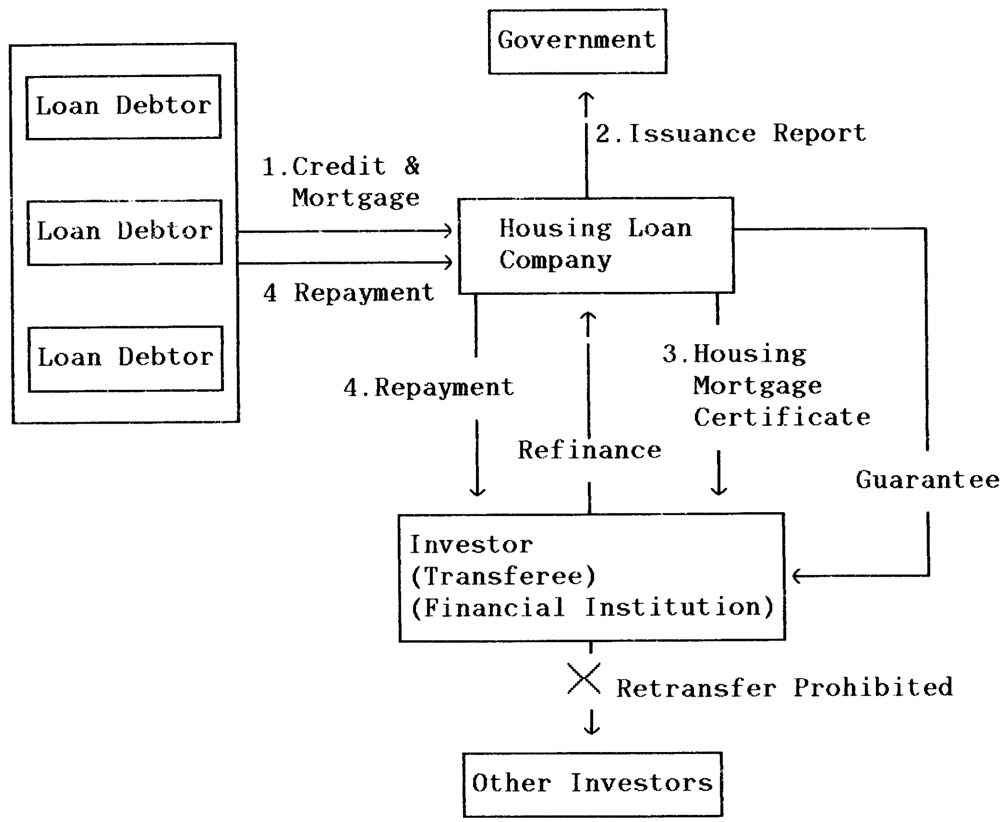
This is a system for financing housing loan companies by other financial institutions (Exhibit 12). The housing loan company, as the original lender, bundles its housing loans with similar conditions with the permission of the debtor. Backed by the bundle of loans, the housing loan company issues a housing mortgage certificate to other financial institutions with a payment guarantee. The retransfer of this certificate, however, is prohibited for the following reasons. The first is that, if a retransfer were allowed, the certificate would become fairly competitive with bank debentures issued by long-term banks. The second reason is that these certificates are not equipped with third-party guarantees, which would make it possible for them to circulate in the capital markets. This lack of liquidity prevents a secondary market from developing.

iii. Housing loan trusts

Under this arrangement, a housing loan company trusts its own credit to a trust bank and receives a benefit certificate issued by that bank. The housing loan company then, in turn, transfers this certificate to a pension fund, which acts as an investor to refinance the loan. Again, retransfer is

EXHIBIT 12

Housing Mortgage Certificate



(Source: Japan Mortgage Security Association)

Outstandings of Housing Mortgage Certificate

(Billion Yen)

Year	'75	'76	'77	'78	'79	'80	'81	'82	'83	'84	'85	'86
Outstandings	17	32	59	119	175	226	264	275	265	251	262	145

(Source: Ministry of Finance)

restricted for the same reasons as outlined above. The low liquidity, the high issuance cost and the restrictions on the trust terms make the secondary market very small (Exhibit 13).

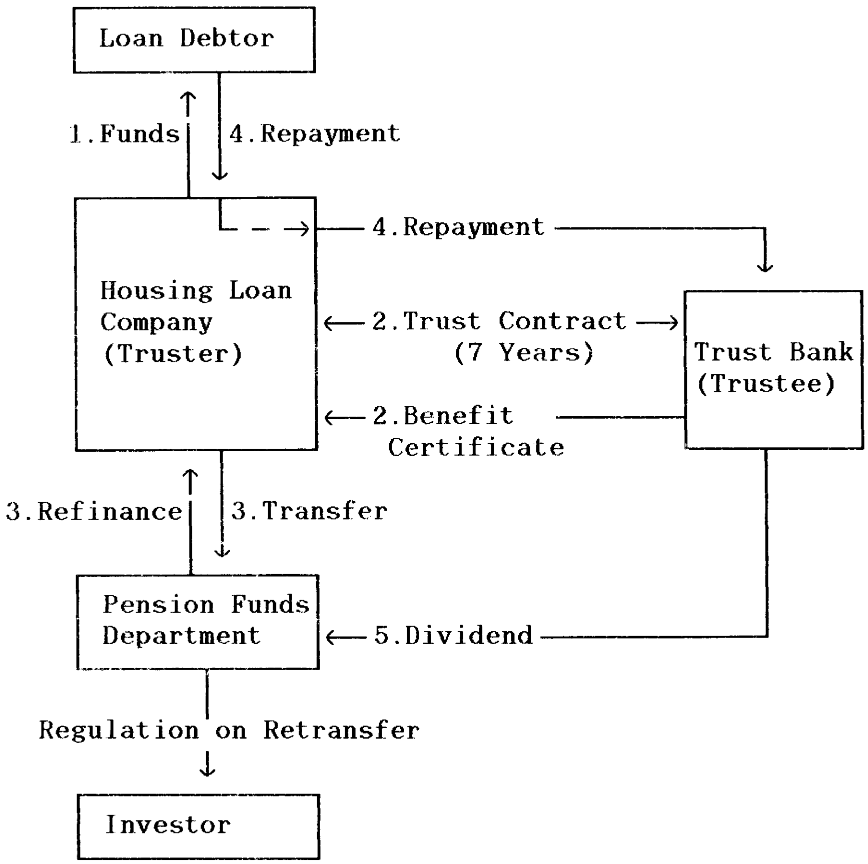
4. An Overview of the Real Estate Capital Markets and Comparison to the U.S.

There is no established concept of real estate capital markets in Japan; they are controlled by bank loans. In this connection, it should be noted that the three types of transactions outlined above are all bank loans. Consequently, the Japanese real estate capital markets are distinct from both the stock and bond markets. There is not even a significant secondary market for any real estate capital markets. This is clearly different from the situation in the U.S., where financial transactions are structured to allow the real estate business to choose from many capital resources, including mortgages, bonds and stocks. In short, the Japanese real estate capital markets are still centered around the traditional type of equity and debt financing and have not developed to utilize the securities markets as capital resources. The reasons for this delay can be outlined as follows.

The first is that Japanese securities markets are not developed yet. Even though there are the real-estate-related securities such as mortgage securities, they can not be used if there are no markets in which to circulate them.

EXHIBIT 13

Housing Loan Trust



(Source: Japan Mortgage Security Association)

Outstandings of Housing Loan Trust

(Billion Yen)

Year	'75	'76	'77	'78	'79	'80	'81	'82	'83	'84	'85	'86
Outstandings	69	151	215	328	506	602	625	549	455	367	226	45

(Source: Ministry of Finance)

Secondly, the dependency of Japanese real estate companies on bank loans for fund-raising is still high. In the Japanese real estate capital markets as well as in the capital markets in general, the concept of the essential needs of the borrower and the lender, i.e., equity and debt, has not yet appeared. In the U.S., on the other hand, this is the basis of fund-raising. This situation itself explains the lack of development of real estate financing in Japan compared to that in the U.S. Large projects, however, such as the redevelopment of Tokyo or the development of Tokyo Bay, have been provoking serious discussions on how stable and cheap capital can be raised. This is because, at present, only those companies that have established a name or reputation in the bank loan market can borrow capital at close to the prime rate, while others have to borrow at several hundred basis points above the prime rate, no matter how promising the project.

D. Conclusion

From the discussion in this chapter, the following conclusions can be drawn.

1. The Japanese financial markets are based on quite unified participants and regulators. This is different from the situation in the U.S., which is full of diversity.

2. In the Japanese capital markets, the influence of the banks is still strong in terms of bank loans as well as in their importance in the economy as a whole as compared to the

U.S.

3. The long-term financial institutions in Japan are unique. They play the role of the Private Financial Market in part by debenture issuance. This helps explain the lower dependency on bonds for fund-raising.

4. Bank loans have traditionally been dominant in the real estate capital markets, and there is no efficient connection between these markets and those for stocks and bonds. In other words, Japanese real estate capital markets have yet to enter a new stage in their development.

5. Consequently, there have been no successful efforts to date in Japan to structure the real estate financing transactions to create a bridge between real estate and other capital markets.

CHAPTER III

THE U.S. EXPERIENCE WITH REITs

A. What Are REITs?

1. The Main Characteristics of REITs

REITs are a specialized form of trust ownership created by Congressional action; their basic structure is defined by the Internal Revenue Code [87]. With REITs, there is no federal income or capital gains tax for the shareholders; thus, double taxation is avoided. This system was designed mainly to give small investors the chance to participate in large-scale real estate investments with professional management and limited liability.

The liquidity of REITs is to be noted. Usually, REIT shares are priced from $10 to $30 and are traded on the stock market. Additionally, REITs spread the development risk of a project to investors in the capital markets.

Based on the asset allocation, there are three types of REITs: equity, mortgage and hybrid [90]. Equity REITs involve the purchase of properties on either a leveraged or an unleveraged basis. Mortgage REITs provide intermediate and long-term financing for development projects and existing income-producing properties. Hybrid REITs are a combination of equity and mortgage REITs.

2. Eligibility Requirements for Conduit Tax Treatment

In order for REITs to obtain preferable conduit tax treatment, i.e., the avoidance of double taxation, they must meet the following requirements of the Internal Revenue Code [87].

a. The REIT must be a corporation or a common law trust.

b. The REIT must have at least 100 beneficial owners.

c. The REIT may not hold property primarily for sale to customers in the ordinary course of business.

d. The REIT must derive at least 90% of its gross income from specified real estate sources.

e. The REIT should distribute more than 95% of its income in the year the income is earned or in the following year.

f. The REIT should meet a series of asset tests other than the above.

As can be seen here, it is not a simple matter to meet these requirements, and failure to do so causes the REIT to lose its preferential tax status.

B. U.S. Experience to Date

A close examination of the features of REITs can be made by looking at past U.S. experience with this sort of investment.

REITs were developed to allow tax-exempt ownership of real estate. Assets in this form of investment increased rapidly, from $1 billion in 1968 to a peak of $20 billion in 1974. Beginning in 1972, however, mortgage REITs were profoundly affected by the increase of interest rates, and many of them collapsed, while a number of equity REITs continued their path of slow and steady growth. Motivated by this collapse and in an effort to survive the recession of 1974 and 1975, many mortgage REITs changed their management policies. As a result, a resurgence of the REIT industry has been seen recently. The total assets of this sector amounted to $18,651 million in 1986.

The reasons for the collapse of mortgage REITs, the changes of management policies and recent issues will now be examined.

1. Capital Structure

When interest rates increased in the early 1970's, the REIT industry was heavily leveraged. Consequently, the debt-to-equity ratio of the industry in 1973 was 4:1. Furthermore, short-term debt was the main source of REITs' capital, amounting to more than 50% of the total in 1975 [82]. Thus, the increase of interest rates had a profound effect on REITs and caused many of them to collapse.

Starting in 1976, shareholder equity increased gradually to a much healthier debt-to-equity ratio, and by 1983, it had dropped to 1:1. The short-term debt also declined to less than 10% of total capital in 1986. Instead, REITs supplied funds through mortgages or MBSs, with 14.58% and 18.07%, respectively, of total capital in 1986.

Recently, the REIT industry has been utilizing more innovative ways to raise capital. Current REITs offerings include not only typical issues such as common stock and shares of beneficial interest, but more sophisticated instruments, such as warrants, preferred stock, and debentures with conversion figures [7] [91]. The purpose of these new instruments is to tailor offerings to the requirements of different types of investors. For example, in 1985, the Prudential Realty Trust, a REIT sponsored and advised by a subsidiary of the Prudential Insurance Company of America, registered an offering of 11 million income shares and an equal number of capital shares of beneficial interest of the trust. Dividends paid to the income shareholders were to be based on the trust's capital flow, while those paid on the capital shares were to be based on the REIT's capital gains. The newest REITs also utilize debt instruments to shelter part of the cash distribution. The REIT registered by Trammel Crow forecasts that 69% of its distributable cash would represent tax-free return of capital. The shelter is achieved through the use of zero coupon bond interest deductions [91].

2. Asset Allocation

Many of the mortgage REITs that collapsed were those concentrated on construction and development loans. In 1970, such loans amounted to 55% of the total assets of the REIT industry. This ratio decreased to as little as 8% in 1984; instead, equity investment and mortgage investment increased, with 44% and 38% of the total assets in that same year. It should be noted in particular that most of the REITs that collapsed were short-term mortgage REITs, which lacked the necessary diversification of assets and were seriously hurt when developers were forced to terminate projects prior to completion and defaulted on their construction loans.

3. Advisor Function

The advisor institution seeks to obtain fees from REITs or to use REITs to generate business for its allied activities or to finance some of its real estate ventures. In order to comply with the Internal Revenue Code, the advisor should be separated from the REITs. In general, advisors to date have been commercial banks, financial conglomerates, mortgage bankers or life insurance companies.

During the most recent recession, many of the troubled REITs were sponsored by the banks or by their mortgage banking affiliates. Their problems arose from the fact that they were allowed to use heavier debts than other types of REITs. In 1974, 70% of the bank-affiliated REITs depended on bank capital, which accounted for more than 60% of total capital. By comparison, the figure for non-bank-affiliated REITs was only 39% [101].

Recently, REITs sponsored by developers or cosponsored by developers and major financial institutions, such as MSA Corporation (founded by Melvin Simon & Associates), EQK Investors (founded by a partnership between the Equitable Life Insurance Company and Kravco Inc.), Turner Equity Investors Inc. (founded by a subsidiary of the Turner Corporation), have emerged. These developers can offer the REITs their management skills and experience. Additionally, they may own investment-grade properties that the REITs can acquire. For the developers, the REITs can be utilized to raise capital less expensively than might be possible by obtaining financing from banks or insurance companies; they can also obtain fee income as REITs advisors [91].

It is noteworthy that there is a conflict of interest between the REITs and the developer. For example, the price of the property of the advisor developer might be higher than that offered by another third party. Although there are several safeguards against this type of situation, such as the independent policy statement of the REITs or the subordination of the fees paid to a REIT advisor to the distributions paid to the shareholders, it must be noted that these safeguards are entirely voluntary.

4. Risk Related to REITs

It should be pointed out that REITs have to depend on capital assets and debts for sources of reinvestment because they are required to distribute 95% of their income. This is a disadvantage in times of a depressed stock market because REITs are dependent on debt and this situation tends to increase the unsystematic risk.

5. Tax Reform Act of 1986

Real estate investment was adversely affected by this act. REITs, on the other hand, gained relative advantages as outlined below [35]:

a. The marginal tax rate decreased, while the capital gains tax increased. As a result, investments such as REITs, which return most of their investment profit to the investors, became more attractive than ever before.

b. The disappearance of accelerated depreciation did not affect REITs because they used straight-line deprecation.

6. Performance of REITs

Several recent studies on the performance of REITs have noted the following points:

a. REITs have performed no better or worse than common stock, nor have they been more or less risky [56].

b. Equity REITs are higher in return and lower in volatility than mortgage REITs (Exhibit 14) [12] [56]. As Burns says, "the investor should distinguish between equity and non-equity REITs" in creating a portfolio [12].

c. REITs' return performance tracks the S&P 500 index closely. This is because most REITs' shares are traded in the capital markets. Equity REITs, in particular, behaves more like a small stock series than does the S&P 500 [26]. Equity REITs also exhibit essentially the same volatility as common stocks.

d. The REIT industry is experiencing more stable rates of return now than it did in the past (Exhibit 14) [56]. One reason for this development is that REITs are relying on more conservative management than before, being involved more in longer-term equity and mortgage assets than in short-term construction and development loans [38] [56]. Thus, it can be

EXHIBIT 14

Annual Average Net Return
and Variance Values
1980 - 1984

Equity REITs

Year	Average Net Return	Variance
1980	0.208	0.030
1981	0.157	0.016
1982	0.107	0.011
1983	0.082	0.003
1984	0.090	0.001

Mortgage REITs

Year	Average Net Return	Variance
1980	0.072	0.031
1981	0.021	0.030
1982	0.042	0.018
1983	0.051	0.019
1984	0.015	0.023

(Source: Kuhle. [55])

observed that the REIT industry has learned from its past mistakes.

7. REITs Investors

NAREIT reports that, during the first nine months of 1985, 21 REITs completed initial public offerings, raising $2.3 billion, as compared with $711 million in 1984. Substantial new investment capital, particularly from tax-exempt employee pension plans and IRA and Keogh accounts, is going into REITs. This is because, besides the fact that REITs' earnings are not subject to federal income tax, for tax-exempt investors under an IRS ruling, REITs dividends distributed to tax-exempted pension plans and IRA and Keogh accounts are not subject to taxation as unrelated business taxable income.

C. Issues at Present

1. Issues Peculiar to Equity-oriented REITs

a. Measurement of value

The basic function of equity REITs is to own and hold real property for long periods of time. These properties may appreciate in value over the holding period. However, measuring that appreciation rate is tricky, because the value of real property is estimated by appraisers [35]. Thus, an appraisal involves an unavoidable aspect of subjective judgement.

b. Equity investment risk

Because equity REITs invest directly in the property, investment risk related to geographic factors and vacancy rates of the property itself must be considered.

2. Issues Peculiar to Mortgage-oriented REITs

a. Capital Structure

Early mortgage REITs borrowed heavily on a short-term basis and made short-term loans. These funds suffered in an era of rising and volatile interest rates. REITs that borrow heavily in the long-term market and lend on long-term mortgages must make their profit on the spread. Their lending rates must be substantially higher than their borrowing rates. The difference goes to the shareholders' profits [35].

b. Lending risks

Mortgage REITs are exposed to such lending risks as credit risk, interest rate risk, prepayment risk and reinvestment risk.

3. Appropriate Flow of Capital Through REITs

One of the reasons why the REIT industry collapsed in the past recession is that an excessive amount of capital flowed into the real estate markets through REITs [90]. Many REITs could not find appropriate investment properties, and they had to seek much riskier investment properties, such as construction and development loans, than might be considered desirable [90] [101]. Although the investment policies of REITs changed after the recession, the issue of the appropriate amount of capital flow through REITs still remains.

4. Loan Orientation of REITs

By nature, players in the capital markets, i.e., Wall Street, will pay for earnings, not cash flow. It is better for REITs to lend money in situations in which 100% of the earnings are reportable and taxable than to own real estate with depreciation shelter reducing taxable income, but not cash flow. For this reason, the bulk of REITs' money initially went into loans rather than equity investment [107], and this loan orientation caused many REITs to collapse. In short, an understanding of REITs in terms of the characteristics of real estate investment is important. Although this understanding seems to have improved in the U.S. because of the recession experience, it still must be considered when weighing the applicability of REITs to Japan.

D. Conclusion--REITs in the U.S. Real Estate Capital Markets

REITs, which were designed by Congress to sidestep double taxation, play the role of conduit in the U.S. real estate capital markets. The fundamental management policy of the industry was learned from its recession experience. Based on this, REITs changed their asset composition from short-term to long-term and from debt to equity. Thus, as mentioned above, the investment risk in REITs was certainly cut.

A total evaluation of REITs' performance, however, has not yet been made. In part, it can be said that REITs should be treated as an investment instrument quite different from direct real estate investment. The correlation between REITs and stocks is strong, and REITs can surely be considered a hybrid security.

It is apparent that REITs enable the small investor to participate in the real estate capital markets through small units of shares. Additionally, they allow the real estate industry to diversify its capital resources by connecting its capital markets with other capital markets.

Finally, the following two points are to be noted.

1. REITs transfer the capital in the stock and bond markets as well as the price volatility in these markets to the real estate capital markets.

2. REITs were essentially created by Congress for the small investor's tax benefit, not necessarily because of requirements by the industry. This situation is likely to cause a flood of capital in the real estate capital markets and make unsound investment likely.

Chapter IV

THE APPLICABILITY OF REITs TO JAPANESE REAL ESTATE CAPITAL MARKETS

A. The U.S. Real Estate Capital Markets

The present real estate capital markets in the U.S. have succeeded in integrating the markets, i.e., developing a close relationship with the stock and bond markets. The original reasons that necessitated this integration are as follows:

1. The requirement to diversify fund-raising resources on the part of S&Ls in the residential mortgage market. This arose from disintermediation and the yield curve squeeze.

2. The preference for cheaper, stabler and larger amounts of funds in the commercial mortgage and equity markets. This preference was caused by the increasing sizes of properties and rising costs of interest.

Because of the diversity of the participants in the U.S. financial markets, the needs and preferences vary according to the market. Nonetheless, the market forces outlined above resulted in the emergence of securitization. The essence of securitization in real estate is structuring each transaction in order to provide alternatives for the numerous investors in the existing stock and bond markets as well as for the borrowers in the real estate market. The alternatives for the investor should be supported by rating, credit support and professional management; consequently, there should be safer and higher yields. The alternatives for the borrower should be cheaper, stabler and quicker fund-raising. The efforts to structure each financial transaction finally succeeded in creating a bridge between real estate capital markets and other capital markets.

At the same time, it cannot be denied that this bridge also works to transfer the price volatility in the stock and bond markets to the real estate capital markets.

Finally, it should be noted that, in the U.S., the integration of the real estate capital markets is based on the already existing stock and bond markets with their full range of diversity. In other words, the ability of the markets to circulate real-estate-related securities as stocks and bonds already existed.

B. Japanese Real Estate Capital Markets

Compared to the U.S., the concept of real estate capital markets in Japan is still unclear. This is because these markets are almost entirely controlled by the banks. Up to now, in effect, bank loans alone have been sufficient to supply long-term stable funds to the real estate industry.

The Japanese financial markets are rather unified and homogeneous insofar as their participants are concerned. On the one hand, the short-term financial institutions lend long-term, and, on the other, the long-term financial institutions lend short-term. This means that the long-term loan market for real estate investment is very wide and full. The fact that most of the real estate companies covered in Exhibit 8 could obtain bank loans with more than 30% of total assets indicates this reliable situation.

From another standpoint, it is also true that securities markets, including the stock and bond markets, are not so often used as fund-raising resources. This is partly because the government deficit was not very large until recently. The government only became a net borrower in 1977, and, until that time, it did not have to develop the bond market to circulate government bonds. Thus, the long-term bond market is still somewhat immature.

Neither has the stock market developed very well. This is because the basic financial system, led by the banks, is characterized by relationship banking, which is, in turn, based upon the close relationship between banks and companies. This relationship tends to discourage the issuance of new stocks because such an issuance is likely to weaken the ties that bind the two institutions. The issuance of stock is used to confirm the close relationship; this is evident in the fact that, in 1985, institutional investors held 74.6% of all the stocks in Japan, as opposed to around 30% in recent years in the U.S. As a result, the stock market as a funding source is still tightly regulated with, for example, strict criteria for issuing stock, and, for most companies, except for the very largest, it is very difficult to gain access to this market.

C. Market Forces for Innovation in the Japanese Real Estate Capital Markets

The large market force that the Japanese real estate capital markets as well as capital markets are facing at present is the trend to deregulation. This trend in Japan is slightly slower than that in the U.S., proceeding gradually.

Interest rate regulation, in particular, is to be noted. Different from the U.S., the role of the governmental Postal Saving System (PSS) is strong. The PSS can insist that the government allow it to give higher interest rates to its depositors than the banks can offer because PSS funds are used for public investment. Because of this problem between the PSS and the banks, deregulation of interest rates will not occur very soon. However, interest rate regulation has certainly begun to show signs of collapse. For example, interest rates on the Certificate Deposit (CD), Money Market Certificate (MMC), and large-volume time deposit have already been deregulated, and complete deregulation is not far in the future. The deregulation of interest rates might affect the stable flow of funds into the real estate capital markets. The main issue is how the real estate capital markets can obtain long-term, fixed-rate capital. Responding to the deregulation of interest rates, Japanese banks would lend money with short-term and floating rates as the S&Ls in the U.S. initially did in reaction to the deregulation of interest rates there.

Because the financial institutions in Japan are unified, as observed in Chapter II, the influence of any deregulation of interest rates might be more significant than in the U.S., where the financial world is full of heterogeneity.

With such a potential market force ahead, it is noteworthy for Japanese markets that the U.S. real estate capital markets succeeded in obtaining capital through securitization.

At the moment in Japan, however, there is no significant device that can offer the investor small units and full liquidity when investing in real estate. Direct investment in real estate requires a huge amount of capital and is, thus, out of the reach of small investors. To satisfy a need to diversify investment devises in the capital markets, securitization, as in the U.S., should be considered.

As outlined above, the need to create a bridge between real estate and other capital markets appears to be rather strong in present-day Japan. This need can also be met by securitization.

D. REITs

In the U.S., the REIT industry has had its failures in the past. The current resurgence in the performance of REITs has not yet been proved completely reliable, and REITs still have such disadvantages as not being able to reinvest from its owned capital.

On the other hand, it is also true that REITs survived the recession period of the 1970's and resurged in spite of it. As a result of this experience, REITs made major changes in their management policies, and their present performance is judged to be good.

Although a final evaluation of the REIT industry will require more time, it can be said that it is in better shape than it was in the past. REITs have assuredly tied the U.S. real estate capital markets with other capital markets.

Further, in considering the essence of REITs, it should be noted that they introduce price volatility into the real estate capital markets, and there is no significant protection against an excessive flow of funds that would overpower the capacity of the real estate industry to invest and manage real estate development project.

E. The Potential Adoption of REITs by Japanese Real Estate Capital Markets

1. Interest on the Part of Related Parties in Japan

In this section, the interest by related parties in the adoption of REITs are examined from the standpoints of borrowers, investors and intermediaries.

a. Interest by borrowers

In terms of fund-raising at present, because big companies, as mentioned above, have already set up strong relationships with banks and have established fund-raising methods through them, they are not particularly motivated to adopt REITs. Additionally, they can approach the stock and bond markets directly because their past experience and past reputation allow them that access. Thus, they have diversity in fund-raising. The real necessity lies in those companies and business that have no such access. The smaller companies need potential alternatives in fund resources in order to reduce the cost of borrowing. At present, these alternatives are quite limited, i.e., to bank loans only.

In terms of funding after deregulation, both large and small companies need diversity in fund-raising, as outlined above. REITs would allow these companies to raise funds in the capital markets so long as they are able to prepare potentially qualified real estate development projects. REITs make it possible to structure the fund-raising transaction based on the potential profit of the project rather than on the reputation or name of the company.

On the other hand, there is still doubt as to the applicability of REITs. One reason is that potentially profitable REITs may be able to offer better rates than the banks. The other reason is that future development of the securities markets themselves without REITs may provide access for small investors to the capital markets. Furthermore, it is very doubtful that the deep tradition of relationship banking would accept funding that is not based on the name or reputation of the company, but on the potential project itself.

b. Interest by investors

From the standpoint of individual investors, REITs are promising because the shares are small enough for them. Up to now, most individual investors have not been able to invest in real estate because of the excessively high prices of such an asset. REITs' shares would provide a way for them to invest in real estate that is managed by professionals.

However, as an alternative investment device, REITs are not at all promising in terms of return. In Tokyo, where the land prices are extremely high, the rate of return on direct real estate investment is usually around 2% with income gain only and about 4% including the capital gain [118]. Assuming potential Japanese REITs follow this performance in the future, it can not be considered a promising investment alternative compared to stocks, bonds or to real estate investment overseas (For reference, see Exhibit 15). Furthermore, this probable rate of return on REITs is not competitive with that of real estate investment in the U.S., which is normally around 10%. Thus, it will be difficult to attract capital now invested in the U.S. back to the domestic market. Currently, direct real estate investment within the Japanese market does not arise, as the above would indicate, from anticipation of a good rate of return; rather it seems that there are other incentives, such as the status or pleasure involved in real estate ownership, as well as tax incentives. Consequently, it is not likely that the Japanese

EXHIBIT 15

Security Investment Trusts (SITs)
Performance Comparison
(September 1987)

[SITs]	6 mouth	1 year	3year	5year
Open-ended, Growth Type (Sample # 15)				
Weighted Average *	12.5%	7.4%	0.5%	36.8%
Maximum	23.3%	27.5%	62.3%	16.1%
Minimum	-2.4%	2.4%	-8.5%	32.8%
Open-ended, Large Stock Type (Sample # 5)				
Weighted Average *	3.2%	5.5%	29.6%	67.5%
Maximum	14.8%	27.0%	89.3%	119.0%
Minimum	-1.8%	2.8%	20.8%	50.1%
Closed, Growth Type (Sample # 7)				
Weighted Average **	17.3%	21.2%	5.2%	—
Maximum	41.6%	32.0%	10.8%	—
Minimum	7.3%	11.1%	-3.7%	—
Closed-end, Large Stock Type (Sample # 13)				
Weighted Average **	11.2%	12.9%	—	—
Maximum	18.2%	20.3%	—	—
Minimum	1.3%	7.5%	—	—
[Stock Index]				
Nikkei 225 Average	20.6%	45.7%	144.5%	276.4%
Nikkei 500 Average	24.5%	37.6%	83.1%	215.2%
TOPIX ***	14.2%	40.8%	159.7%	307.8%
TSESA ****	29.8%	44.5%	104.0%	244.7%

(Note) * Weighted Average of Net Assets
** Weighted Average of Residual Principal
*** Tokyo Stock Exchange Price Index
**** Tokyo Stock Exchange Simple Average

(Source: Weekly Diamond, April 2.1988)

investor would show a strong interest in REITs because of their uncompetitive rate of return.

c. Interest by intermediaries

It is doubtful that Japanese financial intermediaries, which are now dominant in the real estate capital markets there, need REITs, which would be highly competitive with the existence of financial institutions. For long-term financial institutions in particular, REITs could even be considered dangerous because REIT shares might replace their debentures, and the asset allocation of REITs might replace their loans.

2. Security Investment Trusts (SITs) in Japan--Potential Japanese REITs

In looking at the reality of a possible adoption of REITs by Japanese real estate capital markets, it will be useful to examine the existing Security Investment Trusts (SITs) in Japan.

SITs are investment trusts that invest exclusively in securities and can be explained as follows. A small investor who lacks the ability to manage stocks or bonds entrusts funds to an investment specialist to obtain a higher return. The specialists, the trustees, in turn, manage the raised funds in stocks and bonds.

The outstanding balance of SITs in 1987 was 429,144 million yen, and, in the 1982-1987 period, the outstandings increased by more than four times because of stock price increases.

SITs in the Japanese securities markets are similar in function to REITs in the U.S. real estate capital markets. The following differences, however, should be noted.

a. Legal structure

The most important difference is that SITs are operated by a SIT company, which is not tax-exempt. Originally, SITs were created to open the investment opportunities for small and inexperienced investors, not to diversify fund resources for the capital markets by incorporating a tax-exempt status. Considering the significance of REIT's tax-exempt status, this aspect of SITs would probably become the largest stumbling block in REIT's adoption to Japan.

In addition to this, it is very difficult for SITs themselves to issue stocks or bonds because, as they are presently constructed, SITs are not a legal entity, but one kind of financial offering made by a SIT company. In Japan, as we have mentioned, in order to issue stocks or bonds, several requirements must be met. Thus, it is very probable that potential Japanese REITs would be different from their U.S. counterparts in capital structure.

b. Object of the investment

SIT investments are limited to securities defined in the Securities and Exchange Law. Real-estate-related securities such as mortgage securities are completely excluded from this category.

In order to modify SITs to REITs in Japan, expansion of the objects of investment will be required. This, however, will not be sufficient because a secondary market for real-estate-related securities, such as mortgage securities, will be necessary to assure their free circulation.

c. Independence of management

The management of SITs is not so independent from the parent company as are REITs from their advisor. Most Japanese SITs have been established by securities companies because permission to establish a SIT company is based on the selling power of SIT shares in the past. Once it has been established, a SIT company continues to depend on the sales power of the parent company. Consequently, about 90% of the securities issued by SITs in 1987 were sold by their parent companies.

It is said that the Securities Exchange Committee in the U.S. considers a Japanese SIT company to be a subsidiary of its securities company, not an affiliate, because the composition of the executives and the stockholders is almost the same as that of the parent company [16]. This close relationship restricts the management of SITs.

d. Performance

The performance of SITs at the moment is quite low (Exhibit 15), not even exceeding the performance of several stock indexes. This is because the management of SITs is strongly influenced by the policy of the parent securities company. An additional reason is the incomplete disclosure system. At present, the performance disclosure of SITs depends on the private association that has been established by the SIT industry, and there is no reliable third-party evaluation. In addition, the disclosure method of SITs is fairly complicated, making it hard for the amateur to compare one SIT with another. Consequently, management within the SIT industry lacks the incentive to improve their performance.

e. Potential of SITs to develop into the Japanese REITs

From the above discussion, it seems that simple expansion of the objects of investment of SITs will not create Japanese REITs. REITs are an entity backed by the U.S. financial markets, which have complete stock and bond markets at their disposal. The fundamental concept of SITs is quite different from REITs in that the former are not a single independent entity that can issue stocks or bonds as REITs in the U.S. do.

F. Japanese Arguments for the Adoption of REITs

Presently, some concerned parties in Japan believe that equity REITs should be adopted into the Japanese real estate capital markets fairly soon [54] [118]. Let us examine their arguments in this section.

Argument 1 -- "Because REITs are highly liquid, a quality lacked by traditional direct real estate investment, the investor who expects return from real estate ownership would buy REIT shares. Consequently, REITs would reduce the demand for direct real estate ownership" [114] [118].

Although REIT shares are liquid, this characteristic is likely to provoke price volatility in REIT shares, as discussed in Chapter III. Furthermore, even if there were a strong demand for REIT shares, there would still be a strong demand for direct real estate ownership, as the motivations for owning one or the other are quite different.

Argument 2 -- "Equity REITs should be adopted. Equity REITs are superior to mortgage REITs in that they can distribute the capital gain as well as the income gain" [118].

As mentioned in Chapter III, studies in the past show better performance and smaller risks with equity REITs than with mortgage REITs. However, the return of REITs compared to other investments does not seem to be competitive with other alternatives, as already pointed out. And it has been noted that traditional direct investment in domestic real estate is greatly sustained by the social status or pleasure involved. REIT shares would not provide such indirect benefits.

Argument 3 -- "Japanese equity REITs should invest only in construction and development projects. The resale of existing buildings or inventory land without adding any value should be prohibited in order to prevent the speculation that is so rampant in the present-day real estate markets. If Japanese equity REITs could only invest in construction and development, this would help increase the new supply of real estate" [118].

It would be rather difficult for REITs, even equity REITs, to concentrate on construction and development. The reason is that this phase of a project is far more risky than the holding period. The U.S. experience tells us that most of the REITs that concentrated on this type of investment collapsed. Although investment in the construction and development phase increases the rate of return, concentration on it is essentially risky and increases the volatility of the investment.

Argument 4 -- "REITs provide investment opportunities for the smaller investor who cannot afford to invest directly in real estate. This would reduce the social inequality caused by high land prices" [54] [118].

This argument alone seems appropriate because it is true that REITs were originally established for the small investors. But by itself does not make a sufficiently strong case to adopt REITs to the Japanese real estate capital markets.

G. Conclusion

The author would like to summarize this thesis and the chapter as follows.

1. Present-day U.S. real estate capital markets have succeeded in integration, i.e., in establishing a bridge between the real estate capital markets and the stock and bond markets, through securitization. The securitization of real estate can be said to be an effort to create alternatives for the investor as well as the borrower. This type of instrument, however, carries with it the risk of transferring

the price volatility of the security directly to the real estate.

2. Present-day Japanese real estate capital markets, on the other hand, are solely controlled by bank loans and have not developed a bridge to other capital markets. This situation can be explained by the developed and flexible bank loan market and the less-developed stock and bond markets.

3. Japanese real estate capital markets are attracted by securitization, i.e., they wish to establish access to other capital markets. This interest is derived from market forces, the likelihood of bank deregulation, and the very poor ability of small companies to obtain bank financing.

4. REITs, as legislated in the U.S., were successful in bridging the capital markets. In the U.S., REITs survived the recession and to some extent established their long-term status as a fund-raising instrument as well as an investment alternative for the small investor.

5. In Japanese real estate capital markets, in terms of interest on the part of related parties at present, there is no evidence of the necessity to adopt REITs, although there is some need to diversify fund-raising options to more than just bank loans. But this need to diversify does not necessarily imply the adoption of REITs. REITs require, as a fundamental basis, the full development of the securities markets. Although there is a close relationship between the need for fund-raising diversification and the development of the

securities markets, the author could not find any reason to tie the need for diversification of fund-raising to the adoption of REITs.

6. There is a great difference between the concept of SITs in Japan and REITs in the U.S. The simple expansion of the objects of investment of SITs will not, in itself, promise the development of SITs into REITs.

7. The author concludes that the applicability of REITs to present-day Japanese real estate capital markets is low, although the need for the Japanese real estate capital markets to create some sort of bridge to other capital markets is perceived.

BIBLIOGRAPHY

1. Ader, Richard H. "Anatomy of a Master Limited Partnership Roll-up." The Real Estate Finance Journal (Spring 1988).

2. Adler, Tamara L. "Pricing Rated Commercial Mortgage Bonds." The Real Estate Finance Journal (Summer 1987).

3. Aldrich, Peter C., and Richard Kopcke. "Real Estate Consequences of the New Credit Markets." Real Estate Review (Winter 1983).

4. Anderson, Seth, and Mike Miles. "Possible Stock Market Lessons for Pricing Interests in Closed-end Commingled Real Estate Funds." Real Estate Securities Journal 5:4 (1984):64-74.

5. Aoki, Makoto. "Strategic Change in Japanese Banks During Deregulation: A Comparative Study of U.S. and Japanese Banks." MIT Sloan School Thesis (1987).

6. Arai, Tomio. "Beikoku juutaku kinyuu shijou ni okeru finansharu inobeishon no shinten(The Development of Financial Innovation in U.S. Residential Capital Market)." Nomura Research Institute (September 1984).

7. Balch, William P. "New Twist Added to Finite-life REITs," The Real Estate Finance Journal (Winter 1986).

8. Books, Roberta Paula, and J. Jahm Najafi. "Designing a Commercial Mortgage Security: An Overview for Issuers." Real Estate Finance (Spring 1988).

9. Brady, Thomas F. "Changes in Loan Pricing and Business Lending at Commercial Banks." Federal Reserve Bulletin (January 1985).

10. Browmstein, Donald I. "Using Commercial Real Estate Assets as Collateral for Securitization." The Real Estate Finance Journal (Spring 1987).

11. Brueggeman, W. B., A. H. Chen, and T. G. Thibodeau. "Real Estate Investment Funds: Performance and Portfolio Considerations." AREUEA Vol.12, No.3, 1984.

12. Burns, William L., and Donald R. Epley. "The Performance of Portfolios of REITs and Stocks." The Journal of Portfolio Management (Spring 1982):47-52.

13. Cappiello, Frank, and Karel McClellan. "From Main St. to Wall St. - Making Money in Real Estate." New York:John Wiley & Sons (1988).

14. Cargill, Thomas F. "A U.S. Perspective on Japanese Financial Liberalization." Bank of Japan Monetary and Economic Studies (May 1985).

15. Chu, Franklin J. "Financing Real Estate in the Public Securities Market." Real Estate Finance (Winter 1985).

16. Cigaty, David M. "Nihon no toushi shintaku wa toushika o muiteiruka(Do Japanese Investment Trusts Face the Investors?)." Weekly Diamond 2 April 1988.

17. Cohen, Martin. "New Life in Real Estate Stocks." Real Estate Finance (Fall 1985).

18. Conroe, Mark. "Mortgage-Backed Securities Come of Age." Real Estate Review (Fall 1985).

19. Crum, M. Colyer, and David M. Meerschewam. "From Relationship to Price Banking: The Loss of Regulatory Control." in America Versus Japan (Edited by Thomas K. McCraw), Boston:Harvard Business School Press (1988): 261-297.

20. Curley, Michael. "The Commercial Mortgage as a Corporate Security." Real Estate Finance (Winter 1987).

21. Davidson, Harold A., and Jeffrey E. Palmer. "A Comparison of Investment Performance of Common Stocks, Homebuilding Firms, and Equity REITs." The Real Estate Appraiser 44:4 (1978):35-39.

22. Dotsey, Michael. "Japanese Monetary Policy, A Comparative Analysis." Bank of Japan Monetary and Economic Studies (October 1986).

23. Edmunds, John C. "Why REIT Stocks Are Undervalued." Real Estate Review (Fall 1982).

24. Fabozzi, Frank J. "The Handbook of Mortgage-backed Securities." Chicago:Probus Publishing (1985).

25. Feldman, Robert Alan. "Japanese Financial Markets." Cambridge:The MIT Press (1986).

26. Firstenberg, Paul M., Stephen A. Ross, and Randall C. Zisler. "Real Estate:The Whole Story." The Journal of Portfolio Management (Spring 1988).

27. Firstenberg, Paul B., Stephen A. Ross, and Randall C. Zisler. "Managing Real Estate Portfolios." "Part 2: Risk and Return in Real Estate (including Addendum)." "Part 3: A Close Look at Equity Real Estate Risk." "Stock and Bond Market Volatility and Real Estate's Allocation." Goldman Sachs Real Estate Research 16 November 1987.

28. Fogler, H. Russell. "20% in Real Estate:Can Theory Justify It?." The Journal of Portfolio Management (Winter 1984).

29. Freedman, Robert. "Changing REITs Find Broader Interest and Acceptance." The Real Estate Finance Journal (Winter 1986).

30. Froland, Charles, Robert Gorlow, and Richard Sampson. "The Market Risk of Real Estate." The Journal of Portfolio Management (Spring 1986).

31. Gabriel, Stuart A. "Housing and Mortgage Markets:The Post-1982 Expansion." Federal Reserve Bulletin (December 1987).

32. Galowitz, Sam W. "A Revolutionary Structure for Ownership." Real Estate Review (Summer 1985).

33. Goldsmith, Robert E. "REITs Gain Ground As Syndications Become More Equity-oriented. "The Real Estate Finance Journal (Spring 1986).

34. Grebler, Leo, and Leland S. Burns. "Construction Cycles in the United States Since World War II." AREUEA Vol.10, (Summer 1982).

35. Haight, G. Timothy. "The New Limited Partnership Investment Advisor." Chicago:Probus Publishing Company (1987).

36. Haight, G. Timothy, and Deborah Ann Ford. "REITs - New Opportunities in Real Estate Investment Trust Securities." Chicago:Probus Publishing Company (1987).

37. Hartzell, David, Andrea Lepcio, Julia D. Fernald, and Susan Jordan. "Commercial Mortgage-Backed Securities: An Investors' Primer." Salomon Brothers Inc. Real Estate Finance (1987).

38. Hartzell, David, and Anne Mengden. "Another Look at Equity Real Estate Investment Trust Returns." Salomon Brothers Inc., Bond Market Research:Real Estate 22 September 1987.

39. Hartzell, David, John S. Hekman, and Mike E. Miles. "Real Estate Returns and Inflation." AREUEA Vol.15, (Fall 1987).

40. Henning, Charles N., William Pigott, and Robert Haney Scott. "Financial Markets and the Economy." Englewood Cliffs:Prentice Hall (1988).

41. Hines, M. A. "Real Estate Debt Financing." New York:John Wiley & Sons (1987).

42. Hines, M. A. "Financing Real Estate With Securities." New York:John Wiley & Sons (1988).

43. Hite, Gailen L., James E. Owers, and Ronald C. Rogers. "The Separation of Real Estate Operations by Spin-off." AREUEA Vol.12, No.3, 1984.

44. Hu, Joseph C. "The Revolution in 'Securitizing' Residential Mortgages." Real Estate Review (Summer 1984).

45. Hu, Joseph C. "REMICs:Perfecting the Securitization of Mortgages." The Real Estate Finance Journal (Summer 1987).

46. Huberty, Bill. "The Increasing Federalization and Securitization of Home Mortgage Debt." Real Estate Review (Fall 1985).

47. Jensen, Frederick H. "Recent Developments in Corporate Finance." Federal Reserve Bulletin (November 1986).

48. Kaneko, Eisaku, and Umino Tadashi. "Moogeiji shouken no inpulikeishon(Implications of Mortgage-backed Securities)." Shuukan Kinyuu Zaisei Jijou 30 November 1987, 7 December 1987.

49. Kaneko, Eisaku, Hashigami Masako, Matsumoto Junichi, Ono Masaru, Kanda Hideki. "Fudousan no shoukenka (The Securitization of Real Estate)." Tokyo:Toyo Keizai Shinpo-sha (1988).

50. Kaufman, George G. "The U.S. Financial System - Money, Markets, and Institutions." Englewood Cliffs:Prentice -Hall (1986).

51. Kawamura, Yuusuke, and Shimoi Masahiro. "Kinyuu no shoukenka - bei ou nichi no Sekyuritaizeishon (Securitization of Financing - Securitization in the U.S., Europe, and Japan)." Daiwa Shouken Keizai Kenkyuujo, Tokyo:Toyo Keizai Shinpo-sha (1986).

52. Kehr, Rosemary C. "Rating Large Pools of Commercial Real Estate." The Real Estate Finance Journal (Spring 1988).

53. Kinoshita, Masatoshi. "Bank Management and Financial Order in the Phase of Liberalization and Internationalization of Financial Markets." Bank of Japan Monetary and Economic Studies (September 1985).

54. Kogiku, Toyohisa. "Fudousan no shoukenka wa doko made susumuka(How Far Will the Securitization of Real Estate Progress?)." Shuukan Juutaku Jouhou 24 February 1988.

55. Krolak, Peter J. "Securitized Mortgage Structures and Related Accounting Issues." Real Estate Accounting & Taxation (Summer 1987).

56. Kuhle, James L., and Carl H. Walther. "REIT vs. Common Stock Investments:An Historical Perspective." Real Estate Finance (Spring 1986).

57. Kuhle, James L., Carl H. Walther, and Charles H. Wurtzebach. "The Financial Performance of Real Estate Investment Trusts." The Journal of Real Estate Research (Fall 1986).

58. Kuroda, Akio. "Is the Japanese Bond Market Rational and Efficient?." The Journal of Portfolio Management (Fall 1982).

59. Kuroda, Iwao, and Yoshiharu Oritani. "A Reexamination of the Unique Features of Japan's Corporate Financial Structure." Japanese Economic Studies (Summer 1980).

60. Lee, Cheng F., and James B. Kau. "Dividend Payment Behavior and Dividend Policy of REITs." Quarterly Review of Economics and Business Vol. 27, 2 (Summer 1987).

61. L'Engle, Frank F. "Real Estate Investment Trust Rules Revised by TRA '86." Real Estate Accounting and Taxation (Summer 1987).

62. Light, J. O., and William L. White. "The Financial System." Homewood:Richard D. Irwin (1979).

63. Macchia, Anthony F. "The Challenges of A New Era: Competitive Strategy, Value Creation, and Securitization." The Real Estate Finance Journal (Spring 1987).

64. Macchia, Anthony F. "The Securitization of Real Estate: Strategy for Investment Banking." The Real Estate Finance Journal (Fall 1987).

65. Mahoney, Brian W. "New RELPs for Old: Strategies for a Changing Real Estate Marketplace." The Real Estate Finance Journal (Spring 1988).

66. Manolis, J. Steven, and Stuart H. Meistruch. "The Development of Rated Nonrecourse Mortgage-Backed Bonds." Real Estate Finance (Summer 1986).

67. Marks, Evan M. "Rating Process for Commercial Mortgage Debt Accelerates Securitization Trend in Real Estate." The Real Estate Finance Journal (Fall 1986).

68. Matsui, Kazuo. "Sekyuritaizeishon - Kinyuu no Shoukenka (Securitization - Securitization of Financing)." Tokyo: Toyo Keizai Shinpo-sha (1986).

69. McCoy, Bowen H. "The New Financial Markets and Securitized Commercial Real Estate Financing." Real Estate Issues (Spring/Summer 1988).

70. McMahan, John. "The Real Estate Capital Market:Historical Perspectives, Emerging Trends and Future Directions." Real Estate Issues (Fall/Winter 1987).

71. Melnicoff, David C. "Restructuring Home Mortgage Finance." The Real Estate Finance Journal (Winter 1986).

72. Mengden, Anne E. "Real Estate Investment Trusts -- You Can't Tell a Book by Its Cover." Salomon Brothers Inc., Stock Research:Real Estate, 24 March 1987.

73. Mengden, Anne E., and David Hartzell. "Real Estate Investment Trusts -- Are They Stocks or Real Estate?." Salomon Brothers Inc., Stock Research:Real Estate, 27 August 1986.

74. Miles, Mike, and Arthur Esty. "How Well Do Commingled Real Estate Funds Perform?." The Journal of Portfolio Management (Winter 1982).

75. Miles, Mike, and Tom McCue. "Historical Returns and Institutional Real Estate Portfolios." AREUEA Vol.10, (Summer 1982):184-199.

76. Ministry of Construction, Fudousangyou Bijon Kenkyuukai, Fudousan Ryuutsuu Kindaika Sentaa. "21 Seiki eno fudousangyou bijon(A Vision for the Real Estate Industry in the 21st Century)." Tokyo:Gyousei (1986).

77. Mizobuchi, Kiyohiko. "Financing of Real Estate Enterprises in Japan Today." (1987).

78. Murano, Kiyofumi. "The Refinancing of Housing Loans: A Comparative Study of the United States and Japan." MIT Sloan School Thesis (1986).

79. Murata, Nobuyuki. "The Competitive structure of the Global Banking Industry." MIT Sloan School Thesis (1987).

80. Murray, James E. "Structuring Pass-Through Mortgage -Backed Securities." Real Estate Finance (Summer 1984).

81. Nasar, Sylvia. "How to Spot a Recession." Fortune, 28 March 1988.

82. National Association of Real Estate Investment Trusts. "NAREIT Fact Book" (1986).

83. Nihon Keizai Shinbun-sha, and Nihon Shouken Keizai Kenkyuujo. "Keiei Bunseki Handobukku(Handbook of Management Analysis)." Tokyo:Nihon Keizai Shinbun-sha (1987).

84. Noda, Masaho, and Tanida Shouzou. "Nippon no Kinyuu Kikou (The Financial System in Japan)." Tokyo:Shin Nippon Shuppan-sha (1984).

85. Nomura Research Institute. "The World Economy and Financial and Capital Market in Ten Years to Come." Tokyo:Nomura Research Institute (1986).

86. Patel, Raman C., and Robert A. Olsen. "Financial Determinants of Systematic Risk in Real Estate Investment Trusts." Journal of Business Research 12 (1984):481-491.

87. Pyhrr, Stephen A., and James R. Cooper. "Real Estate Investment." New York:John Wiley & Sons (1982).

88. Rogers, Ronald C., and James E. Owers. "The Investment Performance of Real Estate Limited Partnerships." AREUEA Vol.13, (Summer 1985):153-166.

89. Rosen, Kenneth T. "Securitization and the Mortgage Market." Salomon Brothers Inc., Bond Market Research August 1987.

90. Rosenberg, Menachem. "REITs Emerge as Sources of Real Estate Finance and Investment." Real Estate Review (Fall 1986).

91. Ross, Stan, and Richard Klein. "New Directions for Real Estate Investment Trusts." The Real Estate Finance Journal (Winter 1986).

92. Roulac, Stephen E. "Can Real Estate Returns Outperform Common Stocks?." The Journal of Portfolio Management (Winter 1976).

93. Roulac, Stephen E. "Real Estate Appraisals:Critique and Analysis." The Journal of Portfolio Management (Winter 1979).

94. Roulac, Stephen E. "Strategic Challenges for REITs in the Eighties." The Real Estate Securities Journal (Spring 1983).

95. Roulac, Stephen E. "Syndication Emerges to Transform the Real Estate Capital Market." Real Estate Finance (Winter 1985).

96. Roulac, Stephen E. "How to Value Real Estate Securities." The Journal of Portfolio Management (Spring 1988).

97. Roulac, Stephen E. "Real Estate Securitization:Prologue and Prospects." Real Estate Finance (Spring 1988).

98. Roulac Real Estate Consulting Group of Deloitte Haskins + Sells. "A Quarterly Survey of Trends in Commercial Financing." Real Estate Finance (Spring 1988).

99. Royama, Shoichi. "The Financial System of Japan:A New View." Japanese Economic Studies (Spring 1988)

100. Saylor, Paul H., Rosalie J. Wolf, Stephen E. Roulac, Rober Greer, Jr., George M. Covington, Esq., Paul Stanislas, Gerald N. Parkes, Robert G. Johnson, David Alan Richards, Esq., and Brian J. Strum, "The 'Globalization' of Real Estate Finance." Real Estate Finance (Summer 1987).

101. Schulkin, Peter A. "Real Estate Investment Trusts: A New Financial Intermediary." New England Economic Review (Nov./Dec. 1970).

102. Shindo, Kishio. "Japanese Financial Liberalization and Its Impact in the Securities Industry:Comparison With the United States." MIT Sloan School Thesis (1987).

103. Sirmans, G. Stacy, and C. F. Sirmans. "Real Estate Returns:The Historical Perspective." The Journal of Portfolio Management (Summer 1987).

104. Smith, Keith V. "Historical Returns of Real Estate Equity Portfolios." in Sumner N. Levin, Investment Manager's Handbook, Homewood:Dow Jones-Irwin 1980:426-442.

105. Smith, Keith V., and David Shulman. "Institutions Beware: The Performance of Equity Real Estate Investment Trusts." The Financial Analysts Journal (Sept./Oct. 1976):61-66.

106. Solt, Michael E., and Norman G. Miller. "Managerial Incentives: Implications for the Financial Performance Of Real Estate Investment Trusts." AREUEA Vol.13, No.4, 1985.

107. Stevenson, Howard H. "Lessons From the Mortgage Trust Experience." Real Estate Review Vol. 6 (Fall 1976).

108. Sudo, Megumu. "Competition in Japan's Securities Industry:A Historical Overview." Japanese Economic Studies (Spring 1988).

109. Suzuki, Yoshio. "Changes in Financial Asset Selection and the Development of Financial Markets in Japan." Bank of Japan Monetary and Economic Studies (October 1983).

110. Suzuki, Yoshio. "Monetary Policy in Japan:Transmission Mechanism and Effectiveness." Bank of Japan Monetary and Economic Studies (December 1984).

111. Suzuki, Yoshio. "A Comparative Study of Financial Innovation, Deregulation and Reform in Japan and the United States." Bank of Japan Monetary and Economic Studies (October 1986).

112. Takagi, Hitoshi. "Amerika no kinyuu seido(The Financial System in the U.S.)." Tokyo:Toyo Keizai Shinpo-sha (1986).

113. Takita, Katsuhiko. "The Structure of Real Estate Securitization and Its Application to Projects in Japan." Shuukan Kinyuu Zaisei Jijou 16 January 1988.

114. Takita, Katsuhiko. "Fudousan no shoukenka jidai wa kuruka (Will the Age of Securitization of Real Estate Arrive?)." Shuukan Juutaku Jouhou 2 December 1987.

115. Toshi Saikaihatsu Housei KenkyuuKai. "Toshi saikaihatsu ni okeru teitou shouken no katsuyou ni mukete(Positive Usage of Mortgage Security for Urban Land Development)." Urban Review Vol.9, 2 January 1987.

116. Urban Land Institute and Touche Ross and Company. "Real Estate Financial Reporting:The Need:Uniform Practices, The Goal:Increased Understanding." Urban Land Institute (1972).

117. Viner, Aron. "Inside Japanese Financial Markets." Homewood:Dow Jones-Irwin (1988).

118. Wakiyama, Shun. "'Fudousan toushin' hihan eno hanron." Kinyuu Bijinesu (December 1987).

119. Webb, James R., and Willard McIntosh. "Real Estate Investment Acquisition Rules for REITs:A Survey." The Journal of Real Estate Research (Fall 1986).

120. Wiggin, Charles E. "How Equity Financing Works." Real Estate Review (Summer 1984).

121. Wilson, John F., Elizabeth M. Fogler, James L. Freund, and Guido E. van der Ven, "Major Borrowing and Lending Trends in the U.S. Economy, 1981-85." Federal Reserve Bulletin (August 1986).

122. Wolf, Rosalie J. "Securitization of Commercial Real Estate: An Opportunity for Pension Funds." Real Estate Review (Winter 1988).

123. Yabushita, Shirou. "Amerika no kinyuu shijou to kouzou(The U.S. Financial Market and Its Structure)." Tokyo:Toyo Keizai Shinpo-sha (1987).

124. Yokoi, Shirou. "Purojekuto Fainansu(Project Finance)" Tokyo:Yuuhikaku (1985).

125. Yonezawa, Yasuhiro, and Fumiko Kon-ya. "The Japanese Market and the Economic Environment." The Journal of Portfolio Management (Fall 1982).

126. Zerbst, Robert H., and Barbara R. Cambon. "Real Estate Historical Returns and Risks." The Journal of Portfolio Management (Spring 1984).