A Comparison of the Securities Markets in Japan and the U.S.A.

Maru, Junko

(出版者 / Publisher)
Institute of Comparative Economic Studies, Hosei University / 法政大学比較経済研究所

(雑誌名 / Journal or Publication Title)
Journal of International Economic Studies / Journal of International Economic Studies

(巻 / Volume)
3

(開始ページ / Start Page)
67

(終了ページ / End Page)
83

(発行年 / Year)
1989-03

(URL)
https://doi.org/10.15002/00002078

Journal of International Economic Studies (1989) No. 3, 67–83

A COMPARISON OF THE SECURITIES MARKETS IN JAPAN AND THE U.S.A.*

Junko MARU

Senior Researcher of Japan Securities Research Institute

1. Introduction

Recently, "the globalization" of securities markets is developing rapidly and the financial relationship among countries have become much tighter. But the financial system including securities markets, is very different in each country. Each system depends on the national characteristics of the individual countries.

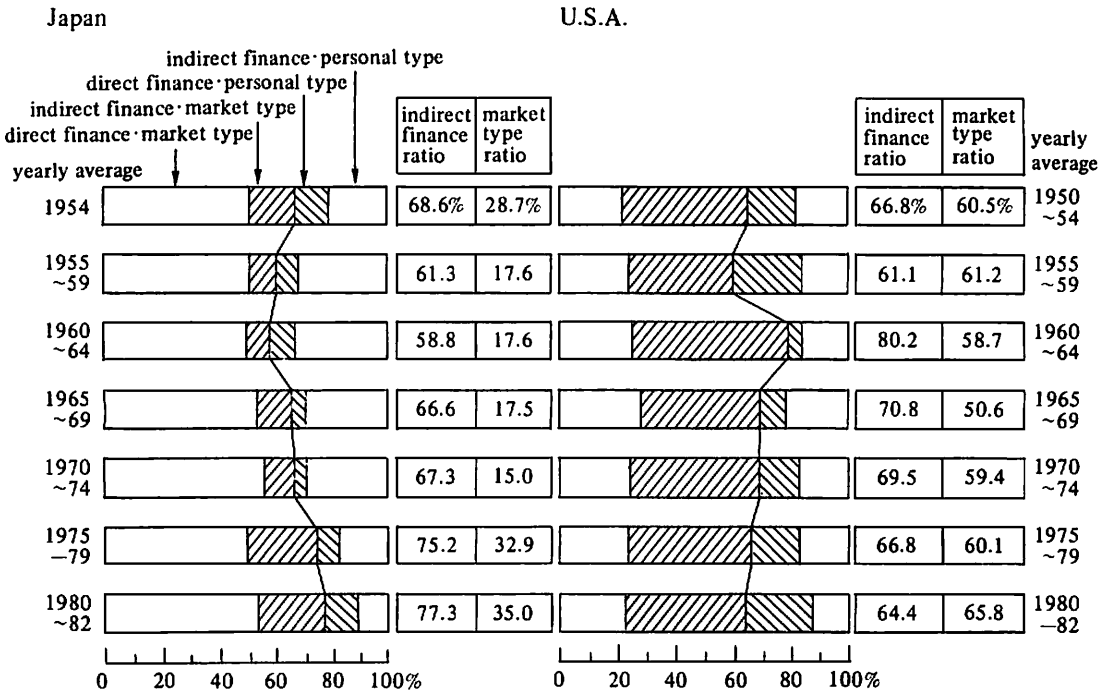
It is very important to recognize the special features of the financial system in Japan, when we consider the future internationalization of the system. In order to do so, we compare the Japanese financial system, especially the securities markets, with financial in the United States.

The financial system has two functions, i.e. the function of asset transformation and the function of asset liquidization. The former function concerns whether the assets are financed directly or indirectly. Here, the distinction between direct finance and indirect finance depends on whether lenders hold the principle securities issued by final borrowers directly, or whether indirect securities are transformed by financial institutions. The financial institutions include the banking system and securities companies. The latter function is derived from the former, and, plays an important roll in the financial system. The function works through the open market in which many people participate, and through the direct market in which people negotiate directly.

The statistical results with which the financial systems of Japan and the U.S. can be compared are shown in figure-1. Generally we characterize the financial system of the United State as relying primarily on direct financial forms. But, both the systems in both the countries are quite similar and utilize a number of financial forms. However, the kinds of financial institutions are significantly different. In the private sector, banks and the other financial institutions have almost the same weight in the U.S.A. On the other hand, in Japan, banks occupy a significantly bigger weight. The U.S. financial system historically has been market oriented, while the Japanese financial system has been non-market oriented until recently. However, since 1975, the Japanese system has been moving to be market oriented. In addition, the weight of the public sector against to whole financial sectors, are gradually getting bigger in both countries.

* This article is to be revice a little and to be translate my article which was published on the The Economic Review Vol. 39 No. 1 January 1988

Figure 1. A Comparison of the Financial Systems in Japan and the U.S.A.



1) indirect finance ratio $= \dfrac{\text{indirect finance}}{\text{indirect finance + direct finance}}$

$$\text{market type ratio} = \frac{\text{market type}}{\text{market type + personal type}}$$

Data: Japan Bank of Japan, Flow of Funds Accounts.
U.S.A. Board of Governors of the Federal Reserve System, Flow of Funds Accounts.

Source: S. Royama [1986]

On the basis of the differences in the financial systems of both countries, we can make a comparison between the securities markets in Japan and the U.S. We can study both the evolving processes and structures for both securities markets. Then, we evaluate the difference (or similarities) in both markets. In particular, we concentrate on the performance of liquidization function.

In section 2, we compare the scale of securities markets in the two countries. In section 3, we compare the performance of both markets. In section 4, we develop framework to compare the structure of the markets and we discuss the differences in these structures in section 5, Finally, we try to consider the possible future changes in the Japanese securities market in section 6.

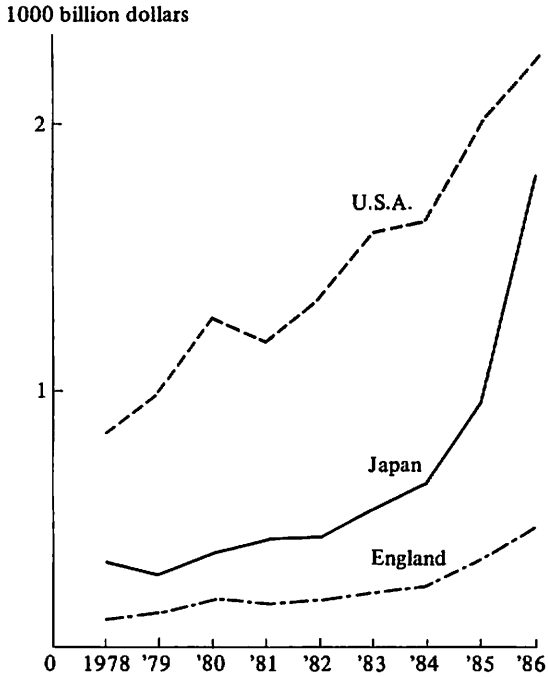
2. The Current Situation of the Securities Markets

1) Stock Markets

In comparing the scale of the stock markets by using the total market value of

the listed stocks, the U.S. stock market is significantly bigger than the Japanese stock market significantly until 1986 (figure 2). But, in 1987 the stock price level grew quite rapidly in Japan, and the Tokyo stock exchange dominated the NYSE according to total market value.

Figure 2. Total Market Value of Listed Stocks



Source: NRI: Manual of Securities Statistics

The stock market can be divided into the exchange market and the over-the-counter-market. The former is a highly systematized market and trading is centralized in an exchange. There are listing criteria which are provided by the exchange regarding the size and business condition of the issuing campany, liquidity of the securities, and other pertinent factors in order ensure fair price formation and to maintain smooth trading for the protection of investors. The other hand, the over-the-counter-market is less organized than the exchange, and the trading is executed over-the-counter of the securities companies. But, the equity issues that are tradable over the counter are not completely arbitrary and must be registrated.

Characteristic of the U.S. stock market is that the over-the-counter-market (NASDAQ: National Association of Dealers Automated Quotation) is quite big and occupies 33% of the total transaction volume in 1984. And the market works quite well. In constrast, the over-the-counter-market of Japan is very small and occupies only 0.13% of the total transactions value of the Tokyo Stock Exchange.

Next, we compare shareownership by type of investors. Table 1 shows the U.S. market and table 2 shows the Japanese market. In the U.S., the percentage of stocks held by individual investors is larger than that held by any other group of investors. But, this ratio has been getting smaller gradually. Conversely, the percentage of stock held by institutional investors is getting higher. And we find that the turn-over

Table 1. Shareownership by Type of Investors (U.S.A.)

	1980		1981		1982		1983		1984		1985			
	holding value	holding ratio	holding value	holding ratio	holding value	holding ratio	holding value	holding ratio	holding value	holding ratio	holding value	holding ratio	yearly average growth rate	85 / 80
Individuals	11,030	70.2	10,562	70.2	11,757	68.3	13,240	65.5	13,282	65.7	16,665	64.5	8.6%	1.5 times
Foreign Investors	646	4.1	646	4.3	768	4.5	973	4.8	958	4.7	1,259	4.9	14.3	1.9
Institutional	4,019	25.6	3,785	25.1	4,652	27.0	5,926	29.3	5,864	29.0	7,815	30.2	14.2	1.9
Private Pension Fund	2,313	14.7	2,100	14.0	2,581	15.0	3,113	15.4	2,972	14.7	3,830	14.8	10.6	1.7
Governmental Retirement Fund	443	2.8	478	3.2	602	3.5	896	4.4	965	4.8	1,454	5.6	26.8	3.3
Mutual Fund	424	2.7	374	2.5	494	2.9	744	3.7	806	4.0	1,137	4.4	21.8	2.7
Life Insurance	474	3.0	477	3.2	557	3.2	649	3.2	633	3.1	772	3.0	10.2	1.6
Other Insurance	323	2.1	324	2.2	385	2.2	481	2.4	447	2.2	570	2.2	12.0	1.8
Mutual Saving Banks	42	0.3	32	0.2	33	0.2	43	0.2	41	0.2	52	0.2	4.4	1.2
Securities Companies	42	0.3	32	0.2	33	0.2	43	0.2	41	0.2	52	0.2	4.4	1.2
Total	15,723	100	15,050	100	17,211	100	20,223	100	20,221	100	25,851	100	10.5	1.6

Data: FRB, Flow of Fund Accounts.
Source: NRI: Manual of Securities Statistics.

Table 2. Shareownership by Type of Investor (Japan)

End of Fiscal Year	1975	1980 (a)	1981	1982	1983	1984	1985 (b)	(b)/(a)
Number of Firms	1,710	1,734	1,749	1,771	1,790	1,806	1,834	
Government	394(0.2)	467(0.2)	480(0.2)	500(0.2)	499(0.2)	504(0.2)	502(0.2)	1.07 times
Domestic	109,947(63.7)	143,713(66.5)	153,890(66.7)	159,610(66.7)	166,378(66.8)	174,172(67.5)	183,210(68.4)	1.27
Financial Institutions	62,156(36.0)	83,894(38.8)	89,155(38.6)	93,128(38.9)	97,124(39.2)	102,288(39.6)	109,030(40.7)	1.30
Banks, Trust Banks	31,053(18.0)	41,526(19.2)	43,882(19.0)	45,907(19.2)	48,235(19.4)	51,480(19.9)	56,379(21.0)	1.36
Mutual Fund	2,730(1.6)	3,276(1.5)	3,039(1.3)	2,918(1.2)	2,516(1.0)	2,800(1.1)	3,650(1.4)	1.11
Life Insurance	19,779(11.5)	26,962(12.5)	29,022(12.6)	30,301(12.7)	31,656(12.7)	32,827(12.7)	33,993(12.7)	1.26
Non-Life Insurance	8,089(4.7)	10,595(4.2)	11,302(4.9)	11,719(4.9)	12,081(4.8)	12,312(4.8)	12,518(4.7)	1.18
Securities Companies	2,462(1.4)	3,743(1.7)	3,973(1.7)	4,277(1.8)	4,753(1.9)	4,913(1.9)	5,610(2.1)	1.50
Business Companies	45,329(26.3)	56,076(26.0)	60,732(26.3)	62,205(26.0)	64,502(25.9)	66,971(25.9)	68,570(25.6)	1.22
Foreigners	4,413(2.6)	8,714(4.0)	10,717(4.6)	12,178(5.1)	15,578(6.3)	15,626(6.1)	16,132(6.0)	1.85
Individuals	57,715(33.5)	63,080(29.2)	65,619(28.4)	67,126(28.0)	66,749(26.8)	67,862(26.3)	67,997(25.4)	1.08
Total	172,473 (100.0)	215,973 (100.0)	230,677 (100.0)	239,415 (100.0)	249,204 (100.0)	258,164 (100.0)	267,841 (100.0)	1.24

Data: The National Conference of Stock Exchange

ratio of transactions volume by institutional investors is higher than the average ratio in the market.

This means that institutional investors are very active in stock market. There also exists the phenomena of the "institutionalization" of the stock market in Japan: The percentage importance of individual investors is rapidly shrinking while the percentage importance of institutional investors is getting higher. But, concerning the turn-over ratio of transactions volume in Japan, the ratio for individual investors is higher than for institutional investors. As a result, the phenomena of institutionalization are very different in the U.S. and in Japan.

2) Bond Markets

The comparison between the scale (outstandings volume) of the bond markets in the U.S. and in Japan is shown in table 3 and table 4. According to this measure of the market scale, the Japanese bond market is growing more rapidly than the U.S. bond market. Considering, the volume of bonds outstanding, in Japan the market grew 13.3 times and in the U.S. 5.7 times for the 16 years, 1970–1986. In order to better see the relative the two scale of bond markets, we take the ratio of bonds outstandings to GNP. The ratio for the U.S. moves both down and up raising to 76.6% in 1970, falling to 71% in 1981, and again raising to 95.5% in 1985. The other hand, in Japan, the ratio has been continually getting higher, from 28% in 1970, it increases to 81.9% in 1986 which is the almost same in the ratio of the U.S. in 1983.

We next survey the bond market by the various types of bonds. During these periods, the ratio of government bonds to all bonds in almost continuously 50% in the U.S. On the other hand, in Japan, the ratio was 13.3% in 1970 and after that, the ratio rose to about higher and is the same level as the ratio in the U.S. in the 1980's. Considering corporate bonds, in the U.S., the ratio is getting lower, falling from 24.2% in 1970 to 19% in 1986. In Japan, the ratio is falling even more rapidly, especially the ratio of kinyu-sai (bank debentures) to total bonds shrank from 30% in 1970 to 16.6% in 1986. In sum, the composition of the bond market changes a lot more in Japan than in the U.S. Moreover, there exist junk (high yield) bond markets in the U.S. and not in Japan.

Table 3. Amount Outstanding Bonds (U.S.A.)

End of year	Marketable Treasury Securities A′			Non-marketable Treasury Securities D	Govern-ment	State, Local	Foreign	Corporate B	Summa-tion C	A′/C	A/C	B/C	C/GNP
1970	247.7	101.2	58.6	139.5	43.6	144.4	14.1	188.3	777.6	31.9	49.8	24.2	76.6
71	262.0	114.0	50.6	160.3	49.5	161.7	15.0	212.0	860.5	30.4	49.1	24.6	78.0
72	269.5	121.5	44.1	177.8	57.9	175.9	16.0	231.3	928.4	29.0	48.2	24.9	76.6
73	270.0	124.6	37.8	197.6	77.9	188.4	17.0	244.9	996.0	27.1	47.0	24.6	73.3
74	282.9	129.8	33.4	208.7	97.9	202.3	19.1	267.6	1078.5	26.2	45.6	24.8	73.2
75	363.2	167.1	38.6	212.5	107.3	214.5	25.3	301.7	1224.5	29.7	47.0	24.6	76.6
76	421.3	216.7	40.6	231.2	121.9	225.6	33.9	331.0	1364.9	30.9	47.8	24.3	76.6
77	459.9	251.8	47.0	255.3	145.0	235.9	38.9	365.9	1500.9	30.6	47.7	24.4	75.4
78	487.5	265.8	60.0	294.8	181.7	254.0	43.1	394.8	1655.9	29.4	47.2	23.8	73.6
79	530.7	283.4	74.7	313.2	230.3	271.4	47.0	417.6	1810.2	29.3	46.6	23.1	72.2
80	623.2	321.6	85.4	305.7	273.9	237.7	47.8	446.9	1985.2	31.4	56.8	22.5	72.7
81	720.3	375.3	99.9	307.0	319.4	293.3	53.3	474.1	2167.4	33.2	47.4	21.9	71.0
82	881.5	465.0	104.6	314.0	383.9	313.9	59.9	505.2	2458.4	35.9	48.6	20.5	77.7
83	1,050.9	573.4	133.7	350.0	451.7	346.3	63.0	533.6	2796.0	37.6	50.1	19.1	82.1
84	1,247.4	705.1	167.9	413.2	526.2	366.5	64.3	503.0	3220.6	38.7	51.6	18.7	35.5
85	1,437.7	812.5	211.1	505.7	626.7	466.1	68.3	714.1	3818.6	37.6	50.9	18.7	95.5
86	1,619.0	927.5	249.8	593.1	798.1	522.9	73.5	845.5	4452.1	36.4	49.7	19.0	

1) Market value
2) include government guaranter Mortgage Bonds
3) A = A′ + D

Source: NRI: Manual of Bonds.

Table 4. Amount of Outstanding Bonds (Japan)

End of Year	Interest Government Medium Term Discount Government A		Local	Government Guaranted	Corporate B	Yen-Denominated Foreign	Bank Debenture	Total C	A/C	B/C	C/GNP
1970	28,111	–	4,685	19,888	30,392	60	63,376	210,610	13.3	14.4	28.0
71	39,521	–	5,170	21,568	36,479	540	78,786	259,282	15.2	14.1	31.3
72	58,185	–	5,718	22,390	41,152	1,240	97,058	319,689	18.2	12.9	33.1
73	75,503	–	6,648	22,370	48,055	1,636	113,767	384,009	19.7	12.5	32.9
74	96,584	–	7,569	22,585	54,211	1,632	133,186	462,267	20.9	11.7	33.5
75	149,731	–	9,909	24,172	66,166	1,973	159,196	589,985	25.4	11.2	38.8
76	219,777	989	13,490	29,264	72,123	2,563	183,978	736,433	30.0	9.8	43.0
77	315,122	3,901	18,115	36,842	79,185	7,029	206,921	916,512	34.8	8.6	48.2
78	419,352	6,805	23,979	46,773	85,371	13,430	228,562	1,107,261	38.5	7.7	53.0
79	552.584	9,929	31,374	60,231	95,064	16,033	240,720	1,323,027	42.5	7.2	38.7
80	692,027	13,071	37,839	74,174	99,438	18,570	261,571	1,540,852	54.8	6.5	62.9
81	807,758	14,976	43,423	87,789	110,855	24,337	286,248	1,746,876	47.1	6.3	67.3
82	948,435	16,387	47,256	104,912	114,753	30,884	315,036	1,970,713	49.0	5.8	72.4
83	1,077,781	19,166	52,009	126,365	118,548	34,713	356,695	2,197,701	49.9	5.4	77.4
84	1,192,956	22,981	56,914	145,379	129,633	43,954	394,817	2,419,574	50.3	5.4	79.8
85	1,307,484	26,595	60,600	164,431	138,269	54,230	435,150	2,626,398	50.8	5.3	81.9
86	1,400,961	30,081	63,945	180,999	166,343	52,618	471,979	2,810,920	50.9	5.9	

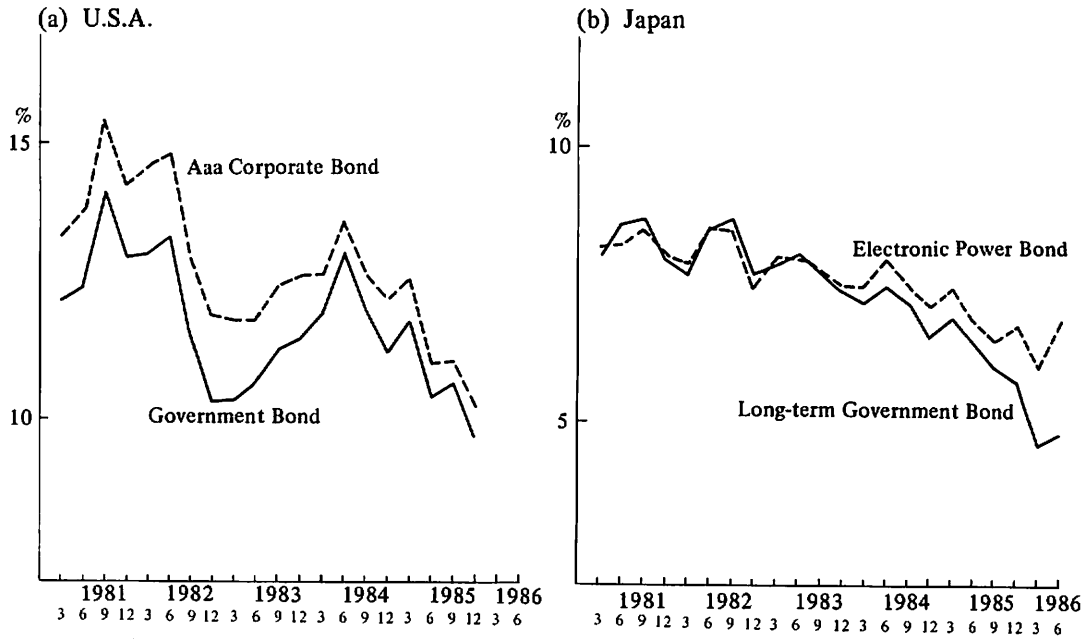
Data: The Bond Underwriters Association of Japan

3. The Performance of Securities Markets

1) Yield Spread

At first, we compare the performance of both markets considering the long-term yield spreads between government bonds and high quality corporate bond. The yields to maturity of government and corporate bonds in both countries are shown in figure 3. The yield spread depends on basically the default risk. As the government bond is the safer, given similar terms, the yield for corporate bonds should be higher than for a government bond considering only the default risk.

Figure 3. Yield to Maturity



Data: The Bond Underwriters Association of Japan

In the U.S. bond market, the spreads are always positive, but, in the Japanese bond market the spreads are almost negative until 1983. From 1983, the spreads change to positive and get progressively wider.

Spreads are also determined by liquidity in the market. As bonds with high liquidity have low transaction costs, the interest rats would be lower compared to bonds with low liquidity, other thing's being equal. Until 1983, the transaction volume and the turn-over ratio of transactions for Japanese government bonds were relatively small. As a result, the transactions costs for government bonds were higher than for corporate bonds.

This phenomena reflects the Japanese financial system. In Japan, government bonds are issured through underwriting by a syndicate. Moreover the underwriting by the financial institutions is compulsory. Therefore, the bond holdings of financial institutions, especially city banks and local banks, are different from their optimal portfolios. Generally, city banks and local banks put up for sale government bonds strongly when the markets are very tight. Recently, underwriting by the syndicate

has been relaxed and the transactions volumes and turn-over ratios have become larger. As, the liquidity for government bonds is better than for any other bonds, the spreads compared with corporate bonds are positive and getting wider.

2) The Performance of Mutual Funds

In Japan, investment trust companies only are typical institutional investors. They actively invest in secondary markets. In this section, we compare the performance of mutual funds in both countries.

Performance can be measured with a relationship between the returns and the risks of mutual funds. Assuming investors behave in a risk averse fashion, they determine their optimal portfolio in order to diversify risks. Under this condition, risks are measured by the systematic risks (β) instead of total risks of returns on securities assets. The relation between rate of return and risk is linear and the trade-off relation in which higher rates of returns attend higher risks on average, holds in efficient markets.

Figure 4. Performance of Japanese Mutual Funds (1985 – 1987)

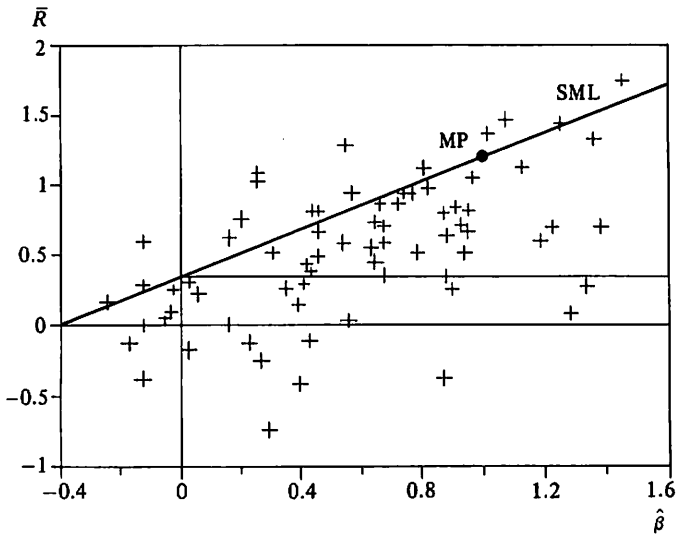
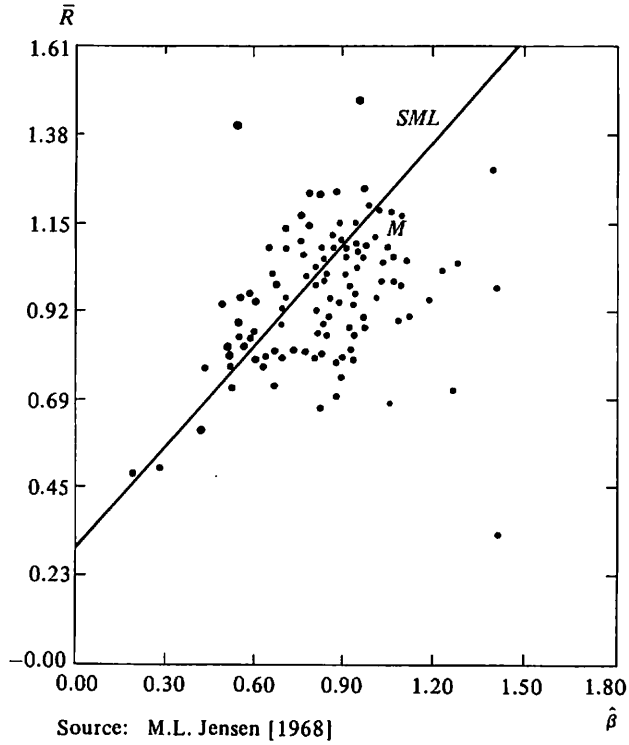


Figure 4 shows the performance of 78 stock investment trust funds (open type) in Japan from 1985 to 1987. During this period, Japanese trust funds grew up rapidly. The straight line (SML) shows the average relationship between the returns and the risks. Funds above the line gained above average returns considering the risks. Evidence from the figure shows that few funds positioned themselves above the line and most of funds were below the line. Performance of Japanese stock funds is on the whole below the market average. Moreover, the funds did not show better any performance during any previous period from 1964.

Figure 5 shows the performance of mutual funds in the U.S. The funds are found both above and below the SML line, and most are positioned around the line. The overall performance is similar to the market as a whole.

Figure 5. Performance of U.S. Mutual Funds (1945 – 1964)



Source: M.L. Jensen [1968]

In sum, the performances in each country are quite different. But, in Japan, competition among investment trust companies are also becoming keen in today's market place when the level of interest rates are very low and investors are getting nervous about poor investment performance. Moreover, institutional investors are studying financial management theory and are beginning to try to apply the theory in the real field.

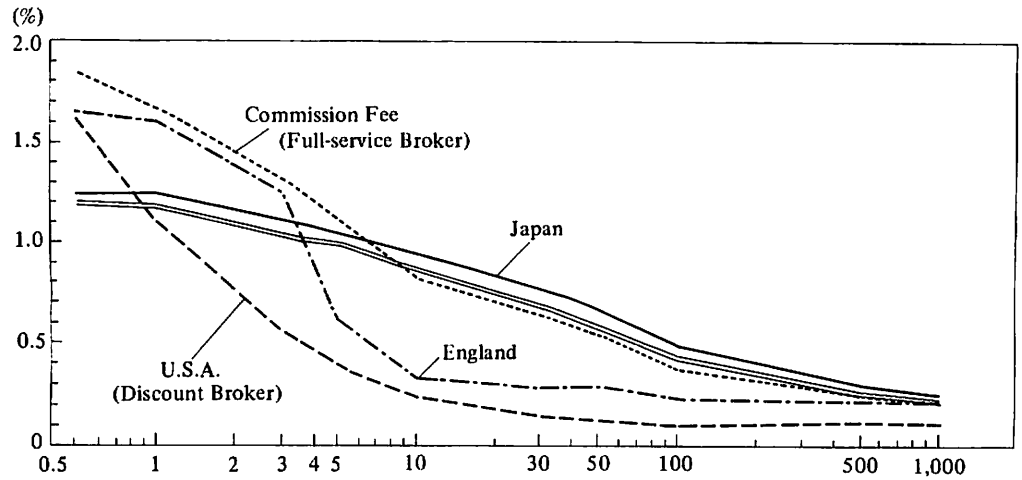
3) Transactions Costs

One of the measures of market efficiency is the transactions costs. Investors must generally pay the transactions costs, but the more efficient the market is, the lower the cost will be. And, the lower the cost is, the more competitive financial transfers will be among dealers and brokers.

For example. In the U.S. stock market, the brokerage commission system changed from fixed rates to negotiable rates since 1975. The innovation was derived from institutional investors who heavily compete on the basis of their performances and are very sensitive to transactions costs. Under the fixed commission system, non-price competition such as free information services, become strong and institutional investors began to demand a reduction of the commission rates (see figure 6).

The other hand, in Japan, the commission rates system has been revised several times, but is presently still on a fixed. In Japan, institutional investors have increased rapidly as in the U.S., but until recently they have not competed against each other on the basis of investment performance. Institutional investors (financial institu-

Figure 6. Commission (Transaction) Fees (1987)



Source: Sumitomo Bank

tions, industrial companies, etc.) have not brought pressure to change the commission system. The objective of stock holdings by institutional investors is not to get a good performance from the stock holdings directly, but to keep good relations with the companies who issued the stocks. So, the transactions volume for institutional investors except for investment trusts are small relative to individual investors. Quite recently, the situation has changed a little bit and competition among institutional investors including foreign investors has been strong according to internationalization of Japanese securities market.

Market performances for Japan and the U.S. are significantly different. The performance is strongly related to the market structure. In the next section, we compare the market structures in both countries.

4. Market Structure – Function of Market-Making

1) Liquidity and Market Types

The most important function of a securities market is to efficiently provide liquidity. Simply, "liquidity" is defined to mean that transaction are executed quickly enough to avert any risk suffered by price volatility. So, liquidity requires low transactions costs. What kinds of market structure are necessary to this requirement.

Generally, markets are classified by the types of structure as being either auction markets, dealers markets, brokers markets, or direct markets. Why do several kinds of market types exist? Market types depend on the quality and quantity of the securities. Quality is determined by the terms or conditions of issurance such as the credit rating, the maturity, or the coupon rate. Quantity is determined by the issue volume, distribution of investors, turn-over ratio of transactions, etc. Comparing government bonds with corporate bonds, the former generally has both better quality and the outstandings amounts are significantly larger. In this situation, a government bond is relatively easy to trade. So, transaction fees and the waiting time for

trading for government bonds are smaller than for corporate bonds.

The type of markets is choosen to minimize transactions costs which include trading fees, waiting time, liquidity risks, and so on. For example, if trading orders continuously enter the market, and there exist many market participants, price information spread out in a uniform fashion, in this case, the auction market is the optimal trading type. Japanese stock markets are almost a type of auction markets. On the other hand, in a dealer market or broker market, there are agencies such as dealers and brokers that provide intermediation in trading. These agencies give price information to investors, search out potential orders and play an important roll in realizing trading orders. Dealers are to be distinguished from brokers who act strictly as agents for investors and do not assume any risk. Dealers who hold inventories can provide higher liquidity to investors, but also assume some risk from price volatility. Therefore, dealing costs are higher than brokerage costs for same trading. The Japanese bond market works as a dealer market.

There are a large number of participants acting together in these three markets. On the other hand, the individual sellers and buyers negotiate directly in "direct markets". This type of market includes the private-offering bond market.

Liquidity is one of the most important characteristics for securities, and the degree of liquidity is strongly related to the value of a particular security. In recent Japanese government bonds market, yield spread between bench-mark and other bonds which have almost the same issue conditions as the bench-mark bond, have been quite big, sometimes as much as 0.7 – 0.8%. The trading share of the bench-mark government bond occupies more than 90% of the whole bond market and the liquidity is very high. Therefore, the bench-mark bond is valuable and the price is relatively high. Next, we consider the relationship between market structure and liquidity.

2) Market-Making

The idealized auction market is typically considered a perfect market, which has high liquidity. In this market, there is no need for any intermediary to match buy and sell orders. But in the real world, many markets do not have enough liquidity. So, the existance of intermediaries results in more rapid trading. One kind of intermediary is a market-maker (dealer) who has inventories of securities, money on his own account and can react to orders of his customers immediately. Market-makers bear the risk of price changes and take interest costs to facilitate quick trading. The customers pay fees for the liquidity which is given by market-maker. The market-making system is considered adequate, if the market-maker can provide high liquidity considering the fees (costs).

Moreover, the market-making system can provide price information to the public. This is because the market maker is obligated to quote bid and asked prices for his specific securities, and to announce the trading amount.

3) Dealers' Behavior and Market Structures

(1) Bid and Ask Spread

The dealer earns income by purchasing shares at the bid price, P^b, usually below the "true" price, P^e, and by selling shares at the ask price, P^a, usually above the

"true" price. Spreads between bid prices and ask prices provide compensation for the dealers and are costs for investors.

Here, we consider how spreads are determined. A dealer holds wealth W at the beginning of the period and selects the optimal portfolio for himself. Moreover, he takes a position for dealing or trading, assume that the cost of borrowing money to purchase securities from investors and the lending rate for money to sell his securities are equal, i. The dealer can not always hold his optimal portfolio, because he must react to his customer's orders. When the difference (loss) from his optimal portfolio is compensated for fees paid by the customers, the dealer system is efficient.

The spread S_j which is the revenue for the dealers and a cost for investors is determined such that,

$$S_j = \frac{P_j^a - P_j^b}{P_j^e} = \frac{(1+i)\,Z\tau_j}{W_0}\sigma_j^2\,|Q_j|$$

here, P_j^a and P_j^b are the quoted selling and buying prices of the dealer, and P_j^e is the equilibrium price expected by the dealer. Z reflects the preferences of the dealer. σ^2 is variance of the return of jth security, and Q_j is the trading quantity at time. Finally, τ_j is the period investment.

We can derive several relationships from this formulation. For example the spread is wider, the larger the variance is, the bigger the trading amount is and the higher the interest rate is. Moreover, the spread is wider, the higher degree of risk aversion for dealers and the higher is the ratio, Q/W. Finally the spread is wider for a longer investment period.

(2) Dealer Market and Inter-Dealer Market

Under competition, new dealers will want to enter markets as long as spreads are larger than dealing costs. At same time, investors look for and work with the dealer who quotes the best prices, the lowest ask price and the highest bid price. Under this situation, spreads are reduced until spreads equal to dealing costs.

Under competition, dealers want to reduce dealing costs. One of methods to save dealing costs is to use inter-dealer markets. Dealers buy and sell through inter-dealer markets. Therefore, dealers can save on the costs of inventories of securities for dealing and escape opportunity costs including the risks of price changing.

4. A Comparison of the Securities Market Structures between Japan and the U.S.A.

In this chapter, we compare the structure of securities markets for both countries by examining the function of market-making. In particular, we can better consider the characteristics of the Japanese market structure by examining the existence of the NASDAQ and the junk bonds market in the U.S.

1) Over-the-Counter Stock Market

Stocks which can not be listed on exchanges are traded on the over-the-counter-

market. The stocks trading on the over-the-counter-market are difficult to market, relative to the listed stocks, because their outstanding volumes are small and they do not have a notable firms' name. Therefore, the over-the-counter-market is typically a dealer market.

In the U.S. stock market, so many stocks are traded on the over-the-counter-market and the over-the-counter-market is quite active. The activity increased, after the NASDAQ (National Association System of Dealers Automated Quotation) was built up. Price information can be disseminated very quickly through the NASDAQ. This development depends on the evolution of computers. Dealers announce price quotations for stocks registered on the NASDAQ. Investors watch the price information and can recognize the best price. Now, more than 4000 stocks are registered on the NASDAQ. The market value of the outstanding issues and their trading value have respectively about 14% and 16% of the comparable ratio on the NYSE. More importantly, the growth of the market is 5.3 times for the NASDAQ as against 3.5 times for the NYSE during the most recent five year period.

On the other hand, the weight of the over-the-counter-market is very small in the Japanese stock market. At first, the function of the over-the-counter-market was to trade stocks delisted from the stock exchange the function of supplying venture capital was not important. The main purpose in the administration of a stock market is to protect investors, so the securities administration did not develop in a positive fashion the function of the over-the-counter-market.

But steps have been taken recently to strengthen the function of the market for trading in securities and for raising funds by offering new shares pursuant to the proposals made by the Securities Exchange Council in June 1983. Quite recently, more than 30 stocks were registered on the over-the-counter-market each year, but the market scale is still very small compared with the NASDAQ.

2) The Corporate Bond Market

Considering the corporate bond market, the Japanese market is quite different from that of the U.S. One of reasons is derived from the structure of the corporate issues market. In the U.S., the issuing terms and conditions are determined by several credit rating agencies which are private institutions and compete with each other. Firms can issue their own corporate bonds in the ordinary bond market if they have a credit ranking of more than BB (bb). They can issue bonds in the "junk bond" market, if they can not get a rank higher than BB. Junk bonds or "high yield bond", provide a high return in compensation for accepting a higher risk. Junk bonds are able to be issued as they have considerable liquidity. The liquidity is supplied by market-makers which are mostly securities companies that underwrite junk bond issues.

In the Japanese corporate issues market, the principle of obtaining security corporate bond issues has become an established practice. So, only a very limited number of firms could issue bonds, and most firms were shut out of the bond market.

Moreover, the issuing terms and conditions did not reflect the prices determined by the secondary bond market. This situation results from the secondary market not being active. The reason for this is that the issue volumes are quite limited and until recently market-making system did not exist until recently. So, the liquidity of

corporate bonds is generally very low and they are not easy to trade.

In the recent past, the Japanese corporate bond system has just begun to change. Now, there are three Japanese credit rating agencies and two foreign rating agencies and a market-making system for corporate bonds has just started up.

3) The Inter-Dealer Market

Nihon Sogo Securities Company (BB) and the Block Trading System of the Stock Exchange work as inter-dealer markets. Specifically, the latter, which was introduced in 1978 to smoothly trade the increasing number of government bonds, is a market for government bonds and is only available for securities companies. BB was established by the big four securities companies as the central figure in the inter-dealer market in 1973 and has functioned in part by bond inventories for the securities companies.

The banking institutions were thinking of creating inter-dealer market when their dealing in public bonds started in June 1984. But, finally the banking institutions joined the BB in accordance with the wishes of the Securities Administration Agency. The transactions fees of the BB and the exchange are fixed. Sometimes the fee changes for both the inter-dealer markets at the same time following the guidance of the Administration Agency.

On the other hand, in the U.S. bond market, inter-dealer markets are constructed as the occasion demands in a voluntary fashion. For example, there are several inter-dealer markets in the government bond market and there is competition among the different inter-dealer markets. Therefore, the transaction fee is determined freely. The existence and the numbers of inter-dealer markets depend on the structure of each securities market.

6. Conclusion – The Future of the Japanese Securities Markets.

Why does a strong difference of structure for securities markets exist between Japan and the U.S.

The first reason is the degree of maturity for the securities markets. In the U.S., the financial system has been historically market-oriented, as described in section 1. The U.S. securities markets have had much experimence in how to make markets. On the other hand, a market-oriented system just is a rather recent development in Japan. We do not have enough experience to develop a properly functioning market. ket.

Second, there were interest rate regulations and credit rationing after world war II. This policy was supported by the indirect financial system that was successfully to reconstructed the Japanese economy. After 1975, the large-scale flotations of government bonds, that accompanied the shift to low growth for the economy, required financial reform. But the regulatory agency adjusted to the new financial situation only with a lag.

Third, there are not any "true" institutional investors except mutual funds. Institutionalization of the securities markets in Japan is different from that in the U.S.

Fourth, Japanese investors still do not understand well what are the proper risks in investment decisions.

How the financial system develops in Japan depends on the specific characteristic of the Japanese situation, so the Japanese financial system does not necessarily need to follow the same path as the U.S. system. But in Japan, the market-oriented part of the financial system is getting larger and maintaining liquidity is becoming very important. For example, we must consider how to construct market-making system to be functioned open market well at first.

Reference

Y. Amihud, T.S.Y. Ho and R.A. Schwartz (1985), Market Making and the Changing Structure of the Securities Industries, Lexington Books.

M.C. Jensen (1968), "The Performance of Mutual Funds in the Period 1945–65." Journal of Finance, May.

Junko Maru (1984), "Determinants of Spreads in Japanese Bonds Markets." Japan Financial Review No. 1, April.

Junko Maru (1986), "Liquiditization of Government Bonds and Structure of Japanese Bonds Markets," Shouken Kenkyu No. 30.

H. Stoll (1978), "The Supply of Dealer Services in Securities Markets," Journal of Finance, September.

Shoichi Royama (1986), Finance Revolution, Tokyo University Press.

Yasuhiro Yonezawaand Junko Maru (1984), The Stock Market in Japan, Toyokeizaishinposha.