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Introduction

The evolution of derivative financial products in Japan received a significant fillip on September 3, 1988, when the Tokyo Stock Exchange ("TSE") and the Osaka Securities Exchange ("OSE") launched stock index futures trading. The Japanese Parliament, the Diet, made the development possible when it amended its Securities and Exchange Law on May 25, 1988. This statutory amendment evinces a significant turning point in Japanese attitudes towards markets in derivative financial products. Japanese leaders traditionally have regarded these markets as risky and overly speculative. Nevertheless, since 1985 the Ministry of Finance ("MoF") has embarked on an ambitious course of reducing restrictions which have hindered the development of Japanese derivative financial markets. Once the MoF completes this liberalization process, Japanese money managers will have the same opportunities to

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1. Derivative financial products consist of futures and options contracts on stocks, bonds, stock indexes, interest rates and currencies, as contrasted with direct investment in the underlying stocks, bonds and other financial markets and instruments.

2. Shoken-Torihiki-Ho (Securities and Exchange Law), Law No. 25 of 1948 [hereinafter SEL].


4. Japan had one of the world’s first organized futures exchanges, the choaimaikaisho, a rice commodity futures exchange, established in Osaka in 1730. On this exchange, rice farmers used futures contracts settled in cash, not rice, to hedge market risk associated with crop yield uncertainty. See Arimura, From Rice to Equities, A New Era in Japan’s Futures Markets, Japan Econ. J., Sept. 10, 1988, at 13, col. 1. Japan also had financial futures before World War II but market crashes led Japanese regulators to distrust and, eventually, to prohibit the speculative aspect of futures trading. See Made in Singapore, Destined for Tokyo, ECONOMIST, Sept. 6, 1986, at 74. A number of futures scandals, involving settlement in cash, led to the demise of cash-delivered futures contracts. See Financial Futures in Japan: Taking Stock, ECONOMIST, Feb. 21, 1987, at 84.

hedge against investment losses, make speculative profits, and arbitrage price discrepancies between underlying instruments and derivative financial markets as their counterparts enjoy elsewhere, especially in the United States.5

This Article will assess the recent emergence of derivative financial products markets in Japan, as well as related deregulation of Japanese investment in overseas derivative financial markets and the introduction of officially sanctioned derivative Japanese financial products by private firms in various foreign financial markets. In addition, this Article will discuss recent developments in international finance that highlight the increasing globalization of markets in both underlying cash financial products and derivative financial products.

I. Evolution of Japanese Involvement in Derivative Financial Products Markets

Beginning in 1985 with the introduction of futures trading in Japanese government bonds,6 the MoF has allowed the TSE, the OSE, and the domestic banking and securities industries to establish a variety of derivative financial products markets in Japan and to participate in similar markets overseas. Increased access for Japanese investors to derivative markets has involved three distinct aspects. One, the MoF liberalized regulations that had prevented Japanese investors from investing in derivative financial products listed on foreign exchanges.7 Two, the MoF authorized the creation of a panoply of domestic derivative financial products markets.8 Three, the MoF allowed certain firms to offer a limited number of derivative instruments based on Japanese financial instruments on overseas markets.9

A. Liberalization of Restrictions on Japanese Investment in Overseas Derivative Financial Products

In May, 1987, the MoF permitted Japanese financial institutions and institutional investors10 to trade directly for their own accounts in a vari-

6. See infra notes 23-32 and accompanying text.
7. See infra notes 10-22 and accompanying text.
8. See infra notes 23-87 and accompanying text.
9. See infra notes 88-100 and accompanying text.
ety of derivative financial products listed on foreign exchanges.\textsuperscript{11} These regulations gave domestic Japanese investors access to futures markets in currencies, stock indexes, interest rates, and bonds, as well as options on these futures contracts.\textsuperscript{12} Subsequently, the MoF revised these regulations further to allow eligible firms to engage in options trading on non-futures related instruments, such as U.S. treasury bonds and interest rates on overseas exchanges.\textsuperscript{13}

Three principal reasons underlie this governmental policy of liberalization. First, and most important, providing access to foreign derivative financial products allowed large Japanese investors to hedge against the risk of losses caused by foreign exchange and interest rate fluctuations pertaining to their ever growing foreign currency assets.\textsuperscript{14}

Second, the MoF had been pressured by domestic financial institutions and foreign governments, particularly the United States government, to lift the prohibition against investing in foreign futures markets.\textsuperscript{15} For the United States government, such pressure was not without self-interest. Lifting the ban would provide greater liquidity to the huge American Treasury bond and stock index futures markets and their underlying cash markets. Given the significant amount of Japanese capital already invested in the United States,\textsuperscript{16} especially in U.S. government bonds, providing Japanese institutional investors with the means to hedge against currency and interest rate volatility will make U.S. financial investments more attractive.\textsuperscript{17}

\textsuperscript{11} Id.

\textsuperscript{12} Until this liberalization, the MoF officially authorized only overseas branches and subsidiaries of Japanese financial institutions to trade in foreign futures markets. See Shibata & Nicoll, \textit{Tokyo Go-Ahead for Financial Futures}, Financial Times, Apr. 23, 1987, at 21, col. 3. However, these foreign based subsidiaries account for only a small percentage of the volume in these markets. See Japan Authorizes Trading of Futures on Financial Markets, Asian Wall St. J. Weekly, Apr. 27, 1987, at 22, col. 4 [hereinafter Japan Authorizes]. Some have alleged that the MoF has ignored unofficial trading by Japanese residents. See Shibata and Nicoll, supra.

\textsuperscript{13} Foreign Option Trade Rule Eased, \textit{Japan Econ. J.}, Feb. 13, 1988, at 13, col. 4.

\textsuperscript{14} See Japan Authorizes, supra note 12, at 22, col. 4.

\textsuperscript{15} McMurray, \textit{Japan May Let Its Firms Trade Directly in Financial Futures Markets in the United States}, Wall St. J., Mar. 30, 1987, at 3, col. 3 [hereinafter Trade Directly]. For instance, Clayton Yeutter, former U.S. Trade Representative and former CME president, and Treasury Secretary James Baker had pressured the Japanese government to lift the restrictions as part of the U.S. government's campaign to have the Japanese adopt a greater free trade policy. Id.

\textsuperscript{16} Id.

\textsuperscript{17} See id. For example, Japanese brokerage firms bought more than one-third of the U.S. treasury bonds and notes sold at several treasury auctions held in 1986 to finance the federal deficit.

\textsuperscript{18} See id. In anticipation of the removal of these restrictions, several foreign futures exchanges undertook measures to attract Japanese interest in their derivative financial products. For instance, the Chicago Board of Trade ("CBT") opened an evening trading session in treasury bond and note futures and options that will coincide with the TSE's morning trade hours. See McMurray, \textit{Japan May Loosen Rules on Trading in U.S. Futures Markets}, Asian Wall St. J. Weekly, Apr. 6, 1987, at 23, col. 1. In addition, the CME opened its own office in Tokyo in April 1987 to attract Japanese institutions to its markets. See Trade Directly, supra note 15, at 3, col. 3. Also, the
Third, the liberalization of trading by Japanese financial institutions in overseas derivative financial product markets demonstrates a familiar pattern whereby the MoF grants Japanese financial institutions greater business powers abroad than at home as a prelude to the liberalization of domestic markets.\textsuperscript{19} Such a strategy allows the MoF to effect significant liberalization in creating domestic derivative financial products while avoiding the costly mistakes that might otherwise be committed.

The MoF did not completely deregulate overseas futures transactions. Individuals and businesses not enumerated in the regulations may not participate in these markets, either directly or indirectly, as through financial institutions acting as brokers,\textsuperscript{20} essentially because the MoF still regards futures trading as excessively speculative and risky.\textsuperscript{21} Until the MoF settles the issue of investor protection,\textsuperscript{22} it will not allow substantial Japanese participation in the world's financial futures markets.

B. Emergence of Derivative Financial Products Markets in Japan

1. Government Bond Futures

The MoF took the first step since the pre-1945 period toward the creation of derivative financial products markets in Japan with the October 1985 establishment of a futures market on the TSE for 10-year Japanese government bonds.\textsuperscript{23} The MoF sought to provide Japanese institutional investors with a means by which to hedge the value of their government bonds portfolios against fluctuations caused by interest rate volatility.\textsuperscript{24}

London International Financial Futures Exchange ("LIFFE") increased its staffs in Chicago and London to accommodate the growth of anticipated Japanese trading. \textit{Id.}


20. \textit{Futures Trading Available, supra note 10, at 3, col. 1.}

21. \textit{Id.}

22. At the time of the MoF's liberalization, investigations were underway into several cases of fraud involving transactions by the Japanese brokers on U.S. futures exchanges. In one case, Asuka Co., a bankrupt futures brokerage in Tokyo, was charged with defrauding 357 Japanese investors of Y1.35 billion from October 1985 to January 1986 with transactions executed on the CME. \textit{See Schoenberger, Fear of Fraud Makes Japan Authorities Go Slowly in Freeing Up Futures Trading, \textsc{Asian Wall St. J. Weekly}, May 18, 1987, at 27, col. 1.}

23. Korver, \textit{New Tokyo Bond Futures Market Survives Rough First Five Months, \textsc{Japan Econ. J.}, Mar. 8, 1986, at 19, col. 1. This was made possible when the Diet amended its SEL on June 21, 1985. Shoken-Torihiki-ho no Ichibo o Kaisei suru Horitsu (The 1985 Amendment to the Securities and Exchange Law), Law No. 71 of 1985.}

24. Government bond prices are inversely related to interest rates. If, for instance, an investor anticipates a rise in interest rates and a fall in bond prices, he can sell government bond futures, promising future delivery of bonds at a fixed price. If the investor anticipates a fall in interest rates, and a rise in bond prices, he can buy government bond futures, promising future acceptance of bonds at a fixed price. Japanese interest rates suffered bouts of volatility during 1986 caused by interest rate deregulation and monetary policy, namely, reduction of the government's official discount rate. \textit{See Korver, supra note 23. For a more detailed discussion of interest rate deregulation, see Semkow, The Deregulation of Japan's Financial Markets,}
Despite a fitful start,\(^{25}\) the bond futures market has become the world's largest of its kind.\(^{26}\) By the end of 1986, the volume in Japanese 10-year government bond futures exceeded that in U.S. government bond futures on the CBT, the most active U.S. market.\(^{27}\) The trading volume of these bond futures in the fiscal year ending March 1988 was ¥3,400 trillion (approximately $25 trillion).\(^{28}\)

The TSE expanded further the government bond futures market on July 8, 1988, with the introduction of trading in 20-year government bond futures.\(^{29}\) Observers expect this market to be smaller, at least initially, than the one for 10-year government bond futures. A chief reason is the limited liquidity of the underlying cash market.\(^{30}\) Another reason is that 20-year bonds suffer from wider price fluctuations than 10-year bonds.\(^{31}\) This futures market will probably grow commensurate with the underlying cash market's size and liquidity. The MoF plans to offer ¥2 trillion in 20-year bonds in fiscal 1988, and some private sources project that annual issues of 20-year bonds will equal those of 10-year bonds within five years.\(^{32}\)
2. **Stock Futures Transactions**

The MoF approved the introduction of the first stock futures trading market in Japan by permitting the OSE to introduce the Osaka 50 Stock Futures Contract ("OSF 50"), a basket of 50 TSE stocks.\(^{33}\) Japanese institutional investors eagerly awaited the opening of the OSF 50 market\(^ {34}\) to have a cheaper and more convenient means of hedging against price fluctuations in their stock portfolio, as well as an additional market in which to make speculative or arbitrage profits.\(^ {35}\)

The OSF 50 is structured like a stock index future\(^ {36}\) to comply with

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34. According to one early 1987 survey by Nihon Keizai Shimbun Inc., which solicited comments from 385 institutional investors, including banks and securities houses, 94 percent expressed interest in futures trading, with 72 percent indicating that they planned to engage in trading. See *Institutional Investors Poised to Enter Nation’s 1st Stock Futures Market*, Japan Econ. J., Feb. 14, 1987, at 23, col. 1. Eighty-five percent claimed they would use the OSF 50 as a hedge against stock price fluctuations. *Id.* Among other motives for engaging in a futures market, 50 percent of the respondents listed speculation and 42 percent arbitrage opportunities. Analysis of comparative costs between stocks and stock futures bolsters the popularity of futures as a method for hedging portfolio risks. Institutional and individual investors find futures cheaper and more convenient to sell than shares. For example, in a billion yen transaction, a Japanese investor can reduce his commission and exchange tax costs by as much as 83%. See Modernize Japanese Markets, *supra* note 33. As a result, investors can manage and adjust equity holdings through futures trading alone.

35. Until recently, the potential for arbitraging price differences between the OSF 50 and the TSE cash market was limited. To take advantage of price anomalies between the two markets, an arbitrageur must sell his large lots quickly. Unfortunately, while the TSE had implemented computerized trading on at least some listed shares, floor traders handled transactions for all but one of the OSF 50 shares, a cumbersome and slow method. See Modernize Japanese Markets, *supra* note 33, at 19, col. 3. In conjunction with the opening of the stock-index futures trading on the OSE on September 3, 1988, the OSE decided to computerize trading in both the OSF 50 and the Nikkei 225 on October 3, 1988. *OSE to Begin Computer Futures Trading*, Japan Econ. J., Aug. 20, 1988, at 15, col. 3.

36. A stock index is the value of a weighted number of shares on a stock exchange. Because the index has no connection with any physical entity, and is connected only to the price of the underlying shares, physical delivery of share certificates is neither contemplated nor possible. A stock index future is an agreement to pay or receive cash reflecting the difference between the price of the stock index at a future time and the price of the stock index at the time of the original contract. One can do this by paying an amount equal to the difference between the index of the original contract conveyed, and that of the contract prevailing on the day it is repaid or repurchased prior to the expiring of the contract (settlement of an open position by a counter-trading). Alternatively, one can pay an amount equal to the difference between the index of the original contract conveyed and that of the contract prevailing on the last day of the contract (the final settlement method). As a result, stock index futures transactions are settled by cash payment or by receipt of the difference between the price of the original contract and the price of the index at the time of settlement. This may occur on the day the contract expires or earlier.
regulatory constraints while satisfying investor preferences. The OSF 50 principally includes the most representative of the 225 stocks underlying the TSE's Nikkei average\textsuperscript{37} to allow for the diversified hedge against price fluctuations that stock investors require. Nevertheless, it contains sufficiently few stocks to permit the physical delivery of stocks traded in the contract that the then-prevailing securities law required in certain instances.\textsuperscript{38}

The MoF cautiously limits the investors authorized to engage in OSF 50 futures trading. For example, it set a high minimum contract price of Y50 million.\textsuperscript{39} In addition, it requires investors to deposit a minimum of Y6 million in cash per contract, or nine percent of the transaction value, whichever is higher, to start trading.\textsuperscript{40} The MoF also restricts the scope of activities for which eligible investors could use the OSF 50 by limiting trading to hedges against possible declines in the value of their stock holdings.\textsuperscript{41}

Despite a slow start,\textsuperscript{42} the OSF futures market grew quickly, aided by the September 1987 reduction in the exchange tax from 0.2 percent...

\textsuperscript{37} The OSF 50 comprises 50 stocks on the TSE that market analysts think best reflect the Nikkei stock average, the most widely followed gauge of Japan's stock markets. The underlying stocks of the OSF 50 account for 22 percent of the total market capitalization of TSE's first section of stocks, and 30 percent of the average daily turnover. See Leung, Opening Soon of Stock-Futures Market is Considered 'Turning Point,' Wall St. J., May 11, 1987, at 33, col. 4.

The OSF 50 may also closely track the Nikkei 225 index, a relevant feature for foreign fund managers, some of whom measure the performance of the funds they manage against the Nikkei, and for investors using the OSF as a hedge against fluctuations in their own, more broadly based stock holdings. According to a Nomura Securities study, the shares of the OSF 50 have closely tracked those of the Nikkei Stock Average over the past five years, rising 127% and 143.5%, respectively. See Modernize Japanese Markets, supra note 33, at 19, col. 3.

\textsuperscript{38} See SEL, supra note 2. The statute's prohibition of cash settlement was designed to preclude stock index futures trading. The Diet removed this prohibition in May 1988. See Amended SEL, supra note 3 and accompanying text. The OSF 50 has four settlement dates: the 15th of March, June, September and December. A seller is required to make delivery of the underlying shares if on the last trading day before the settlement day, the traders are unable to close their position. Traders can close their positions by paying an amount equal to the difference between the price of the original contract and that of the contract prevailing on the day it is repurchased or resold, a method which is called "settlement through a counter-trading." See Tokyo Stock Exchange, Osaka Securities Exchange, Japan Securities Dealers Association, Stock Index Futures Trading and Stock Futures Trading—The Trading Mechanism and Features 8 (1988) [hereinafter Securities Booklet]. Since most traders close their open positions prior to the settlement date, physical delivery seldom occurs. See Modernize Japanese Markets, supra note 33, at 19, col. 3.

\textsuperscript{39} At Last, A Success Story, Economist, Oct. 31, 1987, at 73 [hereinafter Success Story].

\textsuperscript{40} See Modernize Japanese Markets, supra note 33, at 19, col. 3.


\textsuperscript{42} For the first two months of the OSF 50's existence, trading volume averaged fewer than 20 contracts per day. Success Story, supra note 39.
to 0.0125 percent\textsuperscript{43} and the global October market break in share prices, which significantly increased interest in this contract as a risk-hedging device.\textsuperscript{44} The viability of the OSF 50 futures market remains in doubt, however, with the introduction of stock index futures trading on the TSE and OSE on September 3, 1988. This article discusses the ramifications of this development in the following section.\textsuperscript{45}

3. Stock Index Futures

On September 3, 1988, both the TSE and the OSE launched a stock index futures\textsuperscript{46} market,\textsuperscript{47} pursuant to the Diet's May 1988 passage of amendments to the Securities and Exchange Law.\textsuperscript{48} The TSE introduced a stock index future based on its Tokyo Stock Price Index ("TOPIX"), an index of all 1,100 shares on the TSE's first section, which is weighted toward larger companies.\textsuperscript{49} The OSE introduced the better

\begin{itemize}
    \item \textsuperscript{43} Yukashoken-Torihiki-Zei Ho no Ichibu o Kasei suru Horitsu (1987 Amendment to the Securities Exchange Tax Law), Law No. 96 of 1987. With this reduction in the exchange tax on September 26, 1987, the cost of trading (tax plus commission fee) was reduced by more than two-thirds. As a result, average daily trading volume increased from 29 contracts to more than 1300 contracts. See Success Story, supra note 39.
    \item \textsuperscript{44} On October 27 and 28, 1987, trading volume was 2740 and 4000 contracts respectively. See id. By December, daily trading volume on the OSF 50 market often surpassed Y200 million, an amount double the average turnover of cash stocks.
    \item \textsuperscript{45} See infra notes 46-67 and accompanying text.
    \item \textsuperscript{46} For an overview of stock index futures, see supra note 36.
    \item \textsuperscript{47} The MoF had originally scheduled trading of stock index futures to begin in July 1988. The MoF, however, concerned with tax reform measures, was unable to formulate rules and guidelines needed to implement stock index futures trading. See Slow Start of Stock Index Futures Trading, Japan Econ. J., June 25, 1988, at 19, col. 1.
    \item \textsuperscript{48} See Amended SEL, supra note 3 and accompanying text. The development of these markets had been envisaged for over a year, when the Securities and Exchange Council Committee, an advisory body to the MoF, recommended in May 1987 that stock-index futures and option trading begin. Subsequently, the Securities Bureau of the MoF began preparing measures to implement the Committee's recommendation. Securities Firms Fight Move to Open Futures Markets to Banks, Japan Econ. J., Nov. 28, 1987, at 3, col 1 [hereinafter Securities Firms Fight]. The TSE had even earlier investigated the desirability of introducing stock price index futures. In January 1987, the Security Policy Committee of the Exchange, an advisory body to the President of the TSE, published a report which concluded that "[e]arly introduction of a stock index futures contract, \textit{et al} is necessary, and it is desirable to pave the way for such introduction and also to start discussions for establishing a concrete framework for such contract as soon as possible." See Tokyo Stock Exchange, OUTLINE OF TOKYO STOCK PRICE INDEX FUTURES 1 (Oct. 1987) [hereinafter TOPIX OUTLINE]. The TSE then created in March 1987 a Study Group on Futures Contracts under the aegis of its Operations Committee. This study group drafted a framework governing the trading of stock index futures on the TSE, which the Operations Committee and the Board of Governors of the TSE approved in May and June, 1987, respectively. See id. at 2.
    \item \textsuperscript{49} Japan Markets Will Add Stock Index Futures, L.A. Times, Aug. 31, 1988, pt. IV, at 4, col. 1 [hereinafter Markets Add Stock Index Futures].
\end{itemize}

The TSE market for domestic stocks is divided into two Sections. The First Section is the marketplace for stocks of larger companies; the Second Section includes smaller or newly-listed companies. The First Section encompasses nearly 1,100 companies, compared to 430 companies in the Second Section. At the end of each business year, the TSE reviews stocks traded in the Second Section issuing companies to
known 225 share Nikkei Stock Average index future ("Nikkei 225"). Apart from differences in the responsiveness of the indexes to their component parts, the trading conditions underlying each index are virtually identical.

Both TOPIX and Nikkei 225 stock index futures markets offer Japanese investors trading opportunities for speculation, risk-hedging, and determine whether they might satisfy the reassignment rules to the First Section. Concurrently, First-Section-assigned stock is transferred to the Second Section if it falls within the purview of another set of reassignment rules. See TOPIX OUTLINE, supra note 48, at 4 n.1.

TOPIX is a market-value-weighted index in that the market prices of each component stock is multiplied by the number of shares listed. Accordingly, price changes in a stock exert influence over the index in proportion to the stock's respective market value, and stock price changes for large and widely-held companies give a heavier impact on TOPIX than the same price change for smaller companies. See id. at 4-5.

50. See Markets Add Stock Index Futures, supra note 49, at 4, col. 1.

51. See id. According to analysts and exchange officials, TOPIX is a more accurate indicator of overall market trends, because, given its broader base, it is not as vulnerable as the Nikkei 225 to volatility in the fluctuation of high-priced, small-capital shares. Id.

52. For instance, the trading hours are the same—0900 to 1115, and 1300 to 1515 hours for weekdays and 0900 to 1115 on half-day holidays. The final settlement date for these futures fall on the 10th of March, June, September and December. Both have a long trading term of fifteen months, with the last trading day prior to the final settlement date falling on the third trading day prior to that settlement date, and with the first day of trading as the business day immediately following the last trading day. Settlement of open positions through counter-trading is permitted between members only and where each open position of a member is marked to the market by comparing the day's closing price with the previous day's closing price, with the "variation margin" passing from the members whose positions lost value to those whose positions gained value. This form of settlement can occur as early as the third business day following the execution of orders. When settlement of an open position occurs on the last trading day, an open position is marked against the closing index of the stock price index future. The margin requirements are the higher of Y6 million, or 9 percent of the contract value, with three or more percent in cash. The commission rates for transactions on both exchanges are .04 percent for contracts valued at ¥100 million or less; .03 percent plus ¥10,000 for ¥100 million to ¥300 million; .02 percent plus ¥40,000 for ¥300 million to ¥500 million; .01 percent plus ¥90,000 for ¥500 million to ¥1 billion; and .005 percent plus ¥140,000 for more than ¥1 billion. This commission is charged when a purchase or sale is made and when a position is closed either by offsetting or delivery settlement methods. See YAMAICHI SECURITIES Co., LTD., STOCK PRICE INDEX FUTURES, at 10-11 (1988) [hereinafter YAMAICHI INVESTMENT REPORT].

The only ostensible difference lies in the basic trading unit. TOPIX is bid or asked in units of one point and traded in units 10,000 times the prevailing TSE stock price index (a contract price of one unit of TOPIX covering 3000 points is ¥30 million) and where the Nikkei 225 is bid or asked in units of ¥10 and traded in units 1,000 times the prevailing Nikkei stock price index (a contract price of unit of Nikkei standing at ¥30,000 is ¥30 million). Id.

53. Investors as speculators can profit from volatility in the stock-index futures market itself by selling stock price index futures if they expect the equity market to fall, or buying these futures if they expect the equity market to rise. Trading in stock-index futures instead of the underlying stocks requires less investment, and as a result, provides for increased leverage for taking profits or losses. See id. at 12.

54. Investors who wish to hedge stock holdings against risks arising from stock market volatility, can, for instance, if they expect prices to fall, sell stock index futures, using the profits of short-selling the futures to offset the capital losses in
and arbitrage.\textsuperscript{55} To limit the market to sophisticated or wealthy traders, TOPIX and Nikkei 225 have margin requirements similar to the OSF 50. Both indexes require a minimum cash deposit of Y6 million or nine percent of the transaction, whichever is higher.\textsuperscript{56} In addition, the stock exchanges have established daily price limits to shield traders from suffering inordinately large losses due to extreme volatility in underlying stock prices.\textsuperscript{57} The daily limit is a range of three percent, plus or minus, on the closing price or quotation of the preceding day.\textsuperscript{58} The stock exchanges may narrow this band if abnormal market conditions develop or threaten to develop in the futures markets.\textsuperscript{59}

While traders, including financial institutions and non-member securities companies, may trade in these futures for their own accounts, they must do so through TSE or OSE members, or non-members that qualify to trade as special participants.\textsuperscript{60} The commission paid may vary, however, depending on whether the financial institution is a member of the Japan Securities Dealers Association, a stock exchange member, or a special participant.\textsuperscript{61}

holding the stocks if expectations are met. If prices are expected to rise, an investor can use future anticipated cash receipts to enter the equity market by buying stock-index contracts, and taking physical delivery of the underlying stock at a lower price. Moreover, portfolio insurance as an asset allocation strategy designed to assure a minimum return, can be achieved through stock-index futures. See id. at 12-14.

\textsuperscript{55} Arbitrageurs can exploit abnormal price differences between the cash and futures markets, or between two fundamentally related futures contracts. For instance, in the latter case, an investor may sell a TOPIX contract and buy a Nikkei 225, or vice versa. In addition, an investor can arbitrage between the Nikkei 225 and its counterpart on the Singapore International Monetary Exchange ("SIMEX"). See id. at 15-26. For a discussion of the SIMEX Nikkei 225 and related markets, see infra notes 123-35 and accompanying text.

\textsuperscript{56} See YAMAICHI INVESTMENT REPORT, supra note 52, at 11.

\textsuperscript{57} See Securities BOOKLET, supra note 38, at 7.

\textsuperscript{58} See YAMAICHI INVESTMENT REPORT, supra note 52, at 11. The daily limit is three percent of the upper price in each price bracket of the closing price quotation on the preceding day. For instance, if the Nikkei 225 closed at Y37,000, where the relevant price bracket is Y30,000 to Y40,000, the daily limit on the subsequent trading day is Y1,200 Id.

\textsuperscript{59} See Securities BOOKLET, supra note 38, at 7. The stock exchange may also inter alia restrict or prohibit trading in futures, and/or restrict contract writing. See id.

\textsuperscript{60} By Cabinet Order, the government may designate non-member domestic and foreign securities companies to participate in an exchange, if they satisfy the requirements of each exchange. The TSE and OSE requirements for qualification are similar. The TSE, for example, requires an admission fee of 1,000,000 yen; the OSE, 600,000 yen. The TSE requires a non-interest bearing special deposit of 50 million yen; the OSE, 60 million yen. See Osaka Securities Exchange, Contract Specifications of Futures Trading System Based on the Nikkei Stock Average, at 12-13 (1988) [hereinafter "OSE BOOKLET"] and Tokyo Stock Exchange, TOPIX Futures, Contract Specifications for the Futures Contract Based on the Tokyo Stock Price Index 10-11 (1988).

\textsuperscript{61} For instance, regular members, special participants, and non-members of the stock exchange who are members of the Japan Securities Dealers Association qualify for a special rate that amounts to fifty percent of what non-special rate securities firms would pay. See, e.g., OSE BOOKLET, supra note 60, at 9-10.
Although both indexes share many features with the OSF 50, they possess additional advantages that lead observers to predict an early demise for the path-breaking OSF 50.\textsuperscript{62} First, TOPIX and Nikkei 225 futures traders do not have to contend with physical delivery of stock certificates. The enabling amendment to the Securities and Exchange Law\textsuperscript{63} legalized cash settlement in all cases.\textsuperscript{64} Second, although the MoF initially planned to levy the same transactions tax on the index futures markets as it had imposed on the OSF 50, that is 0.0125 percent,\textsuperscript{65} it postponed implementing any tax on the index futures markets until April 1989.\textsuperscript{66}

On the other hand, the otherwise cumbersome physical delivery settlement method underlying OSF 50 futures contract ultimately may be its only saving grace, since this method allows investors to acquire stocks at a lower cost than in the cash market.\textsuperscript{67}

4. Other Futures

In addition to futures markets for bonds, stocks, and stock indexes, the MoF will soon approve futures markets on a variety of other instruments. For example, pursuant to Diet's passage of the Financial Futures Trading Law enacted on May 25, 1988, the MoF will permit an interest rate and currency futures market to operate beginning in 1989.\textsuperscript{68} The Federation of Bankers Associations of Japan ("Zenginkyo") will launch the exchange,\textsuperscript{69} providing an interest rate futures market\textsuperscript{70} in Euroyen

\textsuperscript{62} See Kamada, Osaka Stock Futures 50 Faces Early Decline, Japan Econ. J., Aug. 27, 1988, at 3, col. 5 [hereinafter Early Decline].

\textsuperscript{63} Amended SEL, supra note 3.

\textsuperscript{64} See supra note 38 and accompanying text. The difference is not significant, however, because an open position on an OSF 50 contract is usually settled through a counter-trading or offsetting position before the final settlement date, obviating the need for physical delivery of the stock certificates.

\textsuperscript{65} See Takahashi, Tokyo, Osaka Vie for Crown As Stock Index Futures King, Japan Econ. J., June 18, 1988, at 1, col. 2 [hereinafter Vie for Crown].

\textsuperscript{66} See YAMAICHI INVESTMENT REPORT, supra note 52, at 11.

\textsuperscript{67} See Early Decline, supra note 62, at 3, col. 5.

\textsuperscript{68} See Kinyu-Sakimono-Rothikhi Ho (Financial Futures Trading Law), Law No. 77 of 1988.

\textsuperscript{69} See Vie for Crown, supra note 65, at 2, col. 2.

\textsuperscript{70} An interest rate futures market affords investors the opportunity to hedge bond portfolios against interest rate volatility. For instance, an investor with a portfolio of long-term bonds who anticipates that interest rates will rise may sell interest rate futures contracts in order to protect the portfolio against decreases in bond values should interest rates rise. (Of course, the investor will forsee any increase in bond value should interest rates fall.) The selling of these futures is particularly desirable if the investor wants to stabilize the effective return on these bonds (capital gains and losses plus interest) especially if they were to be sold. In addition, an investor with short-term bonds, who anticipates that interest rates will fall, increasing the value of the portfolio but not as much as if the portfolio consisted of long-term bonds, may purchase interest rate contracts, instead of long term bonds. Through this strategy, the investor would close the open long futures position while the short-term bonds matured, using the proceeds from the disposition thereof to acquire long term bonds. See B. LONGSTRETH, supra note 5, at 135.
and Eurodollars,\textsuperscript{71} interest rate contracts, and a currency futures market in yen contracts.\textsuperscript{72} The Tokyo Interbank Offered Rate ("TIBOR") will serve as the standard rate of settlement for Euroyen and Eurodollar deposits, in part, to avoid competition with LIBOR, the settlement standard used in the London, Chicago, Singapore, and other foreign financial markets.\textsuperscript{73} Zenginkyo announced that it would locate the first financial futures exchange in Tokyo.\textsuperscript{74} The exchange will open in March 1989, with trading of Eurodollar and Euroyen interest rate contracts and yen currency futures beginning in June 1989.\textsuperscript{75}

Zenginkyo has also begun investigating the possible opening of a second financial futures market in Osaka.\textsuperscript{76} Zenginkyo would probably have to clearly differentiate any Osaka market from the Tokyo market to overcome Osaka's relative disadvantages, including the presence in

\begin{itemize}
\item \textsuperscript{71} A Eurocurrency is a currency held on deposit by corporations and national governments in a country other than the one that issued the currency. As a result, a Euroyen is a yen deposit retained outside Japan, and a Eurodollar, a dollar deposit outside the United States. Although the prefix "Euro" historically denoted a currency held on deposit in a European country outside the country of issue, a Eurocurrency now is one that is held in any country outside the one that issued the currency.
\item \textsuperscript{72} Although currency futures contracts in yen have traded elsewhere, including the CME, no currency futures markets have existed in Japan. Currency futures serve to hedge against exchange rate volatility. For instance, an American subsidiary in Japan that brings goods from its American-based parent and resells them in Japan for yen, will wish to repatriate dollars to its parent. The subsidiary will purchase yen currency futures if it expects the yen to fall, locking in the value of its yen proceeds into U.S. dollars, to return the expected dollar proceeds to its parent.
\item \textsuperscript{73} Tokyo Futures to Use TIBOR Standard, Japan Econ. J., Dec. 26, 1987, at 10, col. 1.
\item \textsuperscript{74} See Osaka Due Financial Futures Exchange, Japan Econ. J., July 16, 1988, at 3, col. 3 [hereinafter Osaka Due Exchange].
\item \textsuperscript{75} Id.
\item \textsuperscript{76} See Osaka Due Exchange, supra note 74, at 3, col. 3. The Zenginkyo decision was in response to a concerted effort by the Kansai Economic Federation (which represents the Osaka-Kyoto-Kobe region) to have Osaka represent the first financial futures market, citing among other advantages that lower land acquisition costs for a building to house the market, and its expertise in OSF 50 futures trading. See Vie for Crown, supra note 65 at 2, col. 2. The Osaka-Tokyo rivalry is not new. Osaka had been Japan's commercial capital since ancient times, first becoming prominent as the port city for Kyoto, Japan's feudal capital. Between 1955 and 1984, however, Osaka's share of Japan's industrial output fell from 12.6\% to 8.4\%, with its share of the country's total exports falling from 52.6\% to 20.5\%. See Kansai: Second Wind or Second Best?, Economist, June 20, 1987, at 76-77. Against this backdrop of Osaka's reduced economic importance relative to the entire country, Osaka has tried to equal, and even upstage Tokyo as a financial center. Currently, Osaka accounts for 11 percent and 13 percent of bank lending and share trading in Japan, as opposed to Tokyo's share of 75-80 percent in these categories. See id. By comparison, Osaka's prewar share was forty percent. Id. Despite this gap, the OSE is the world's third biggest stock market, after Tokyo and New York in terms of the capitalization of the listed companies. A Yen to Grow, Economist, Jan. 24, 1987, at 71-72. To capture a greater market share of financial services from Tokyo, the OSE adopted a niche strategy, which has thus far included the creation of a market to encourage flotations of small and medium sized firms in 1984, the earlier opening of its exchange in 1985, the introduction of the OSF 50 and the Nikkei 225 in 1987 and 1988, respectively. See id.
\end{itemize}
Tokyo of a majority of the institutional investors and Osaka's absence of foreign banks.

5. Options Trading

The MoF has also deregulated some forms of options trading in Japan. It has done so by countenancing unofficial options trading in currency and trading in an option-like transactions market in government bonds prior to establishing officially sanctioned options markets.

Banks and foreign exchange brokers have conducted unofficial private trading in currency options for a number of years. Currency options allow major trading companies and corporations with significant overseas transactions to hedge against foreign exchange risks. In March, 1988, the Bank of Japan began collecting data from the various banks and other financial institutions that comprise this market as a prelude to providing official approval of currency options trading.

De facto options trading in Japanese government bonds began in 1987. At that time, Japanese and American securities companies began to offer institutional investors the opportunity to enter into forward transactions of the bonds with a right of cancellation. These contracts are analogous to options; the right of cancellation permits the holder to abrogate his obligation to buy or sell Japanese government bonds before a future settlement date.

Current plans indicate that official trading of options will begin in early 1989. After receiving authorization from the MoF, the OSE announced plans to initiate options trading of the Nikkei 225 in 1989.

77. See Vie for Crown, supra note 65. Investors usually use securities as payment for margin calls, making physical delivery in Osaka inconvenient. Id.

78. Id.

79. An option is the right to buy or sell a financial instrument within a certain period. Call options (rights to buy) can be written (sold) against specific financial instruments held in a portfolio. Conversely, put options (rights to sell) can be written (sold) against portfolio cash. For a price, the call option writer agrees to sell a financial instrument at a fixed price, an exercise price. If the value of the instrument rises above the exercise price, the writer has the instrument called away, losing the increase in the value of the instrument, which is offset by the premium. On the other hand, if the value falls below the exercise price, the option lapses, and the call writer retains the option price. See LONGSTRETH, supra note 5, at 137.

80. BOJ Investigating Currency Options in Tokyo, Japan Econ. J., Apr. 9, 1988, at 15, col. 1 [hereinafter BOJ Investigation].


82. BOJ Investigation, supra note 80.


84. Ministry Will Approve Stock-Option Dealing, Japan Econ. J., Aug. 30, 1986, at 19, col. 2 [hereinafter Ministry Approves]. But it was not until May 1988 that the Diet amended the SEL to allow companies to engage in stock option trading. See Amended SEL, supra note 3.

85. OSE To Introduce Nikkei Option Trading, Japan Econ. J., Dec. 12, 1987, at 19, col. 2. The May 1988 Amendments to the SEL also removed restrictions on options trading. See Amended SEL, supra note 3. In January, 1988, the OSE issued a report on a
Moreover, recent government pronouncements suggest that the OSE's Nikkei options trading may not be the first options market in Japan. In June 1988 the MoF announced that it will promptly sanction over-the-counter options trading on government bonds.\textsuperscript{86} The advanced schedule reflects in part the MoF's concern that domestic financial institutions are several years behind foreign competitors in this trading activity.\textsuperscript{87}

C. Offerings of Japanese Derivative Financial Products Overseas

Spring 1988 witnessed the debut of three privately issued but officially sanctioned Japanese derivative financial products in overseas markets. In April, the MoF permitted Japanese securities companies to trade Japanese government bond warrants\textsuperscript{88} in overseas markets.\textsuperscript{89} In May, the MoF further authorized over-the-counter trading of bond futures warrants on overseas markets\textsuperscript{90} and sales of stock index warrants on the Euromarkets.\textsuperscript{91} All three products offer valuable opportunities for holders of Japanese stocks and bonds to hedge investment risk.

The approval of the market in government bond warrants created the first option-like instrument, domestic or overseas, issued on a Japanese government bond.\textsuperscript{92} Not coincidentally, the MoF cautiously limited sales of the instrument for fear that full scale marketing would unfavorably influence the underlying cash markets in Tokyo.\textsuperscript{93} Observers have commented that the MoF may have authorized sales of the bond warrants for a reason other than investor diversification—namely, to forestall large-scale unofficial trading in government bond futures on

\textsuperscript{86} MoF Said to Back Options Trading, Japan Econ. J., June 18, 1988, at 13, col. 3.
\textsuperscript{87} Id.
\textsuperscript{88} A warrant, usually issued as a detachable portion of a bond, enables the holder to buy an underlying security at a set price within a specified period.
\textsuperscript{89} MoF Permits Sales of Government Bond Warrants, Japan Econ. J., May 7, 1988, at 13, col. 1 [hereinafter MoF Permits Sales]. See also infra notes 92-94 and accompanying text.
\textsuperscript{90} Japan to Decontrol Stock Index Warrants, Japan Econ. J., June 11, 1988, at 13, col. 1 [hereinafter Decontrol Index Warrants]. See also infra notes 95-97 and accompanying text.
\textsuperscript{91} See MoF Permits Sales, supra note 89, at 13, col. 1. See also infra notes 98-100.
\textsuperscript{93} See MoF Permits Sales, supra note 89, at 13, col. 1. The MoF granted permission only to London-based units of Daiwa Securities Co. and Salomon Brothers, Inc. to start limited sales in March 1988. See Rubinfien & Sesit, supra note 92, at 45, col. 1. In addition, the MoF limited the number of options issued to no more than ten percent of the outstanding balance of government bonds in the secondary market in Tokyo. See MoF Permits Sales, supra note 89, at 13, col. 1.
the London financial markets by the Bank of Tokyo.94

The over-the-counter trading of government bond futures warrants has proven hugely successful, attaining a volume of Y525 billion within a month of the initial issuance of the warrants.95 This success rests largely on the opportunities the bond futures warrants provide overseas investors for avoiding risks of price volatility in the large market for Japanese bond futures.96 Market innovation has led Japanese securities firms’ offshore units to offer these warrants with multiple exercise prices to meet investors’ risk diversification needs.97

The stock index warrants allow holders to buy and sell options tied to the Nikkei 225.98 This constitutes a valuable risk hedging device for offshore holders of Japanese stocks that wish to hedge their stock portfolios against possible falls in share prices.99 However, the MoF attaches an important limitation to the stock index warrants in that it prohibits sales to Japanese residents.100

II. Analysis

As the foregoing section illustrates, Japanese investors have gained access to an extensive list of derivative financial products, both at home and abroad. Concurrently, foreign investors in yen denominated markets have gained several new methods of hedging investment risk. This Section will assess the development of Japanese derivative financial products markets, including probable areas of additional liberalization, and discuss an important, likely consequence of the Japanese move towards deregulation—the globalization of cash and derivative financial products markets.

A. Extent of Liberalization of Japanese Derivative Financial Products Markets

Japan has undergone an extraordinary change in financial markets, from having access to no derivative products in 1985 to having by the end of 1990 an array of derivative products markets in 10 and 20 year government bond futures;101 the OSF 50 stock futures market;102 two stock index futures markets;103 interest rates futures in Euroyen and Eurodol-

96. See id.
98. Decontrol Index Warrants, supra note 90, at 13, col. 1.
99. Id.
100. Id.
101. See supra notes 22-32 and accompanying text.
102. See supra notes 33-45 and accompanying text.
103. See supra notes 46-67 and accompanying text.
currency futures in yen contracts; currency options; options-like forward transactions in government bonds with a right of cancellation; stock index options based on the Nikkei 225; and over the counter options trading in Japanese government bonds. These markets do not include, of course, the access Japanese investors have to a full range of overseas derivative financial products markets.

Given this rapid change, further liberalization measures will almost certainly continue, especially once performance of the markets allay fears of harm to investors. Expansion will have to occur on two fronts. First, the MoF can lower the onerous participation requirements that presently prevent small investors from using the market. Second, the MoF can authorize additional forms of derivative financial markets.

One important likely development is the creation of a unified Japanese financial futures market. The Zenginkyo has pushed for such a market since early 1987 and the MoF has responded enthusiastically to promote the globalization of Japanese financial markets.

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104. *See supra* notes 68-71, 73-75 and accompanying text.
105. *See supra* notes 68-69, 72-75 and accompanying text.
106. *See supra* notes 80-82 and accompanying text.
107. *See supra* note 85 and accompanying text.
108. *See supra* note 84-85 and accompanying text.
109. *See supra* notes 86-87 and accompanying text.
110. *See supra* notes 10-22, 88-100 and accompanying text.
111. *See supra* notes 20-22, 39-41, 56 and accompanying text.
112. *Banks Push for Unified Financial Futures Market*, *Japan Econ. J.*, March 7, 1987, at 1. A working group of Zenginkyo, led by Japan's six major city banks, created a framework for an integrated financial futures market. The financial instruments were to include yen exchange rate futures, similar to those traded overseas, such as on the CME, to hedge against foreign exchange risk; short-term interest rate futures markets, with certificates of deposit on the appropriate short-term financial instrument; and interest rate futures for 20-year U.S. Treasury bonds and three-month Eurodollar-deposits. *Id.* The group placed priority on the introduction of yen currency futures contracts, with direct participation limited to banks, the only financial institutions empowered to have foreign exchange dealings by Article 11 of Gaikoku-Kawase yobi Gai Koku-Bōeki kanri-hō (Foreign Exchange and Foreign Trade Control Law), Law No. 228 of 1949, and the amendment thereto, Gaikoku-Kawase oyobi Gaikoku-Bōeki Kanri-Hō no Ichibu o Kasei suru Kasei suru Hōritsu (Law to Amend a Part of the Foreign Exchange and Foreign Trade Control Law), Law No. 65 of 1979. *See id.*
113. The MoF responded to the Zenginkyo initiative by asking an advisory body, The Financial System Research Council Committee ("FSRCC"), to prepare measures to provide for drafting of new laws concerning financial futures trading and initiating futures trading exchanges. *See Ministry to Set Up Domestic Trading in Financial Futures*, *Japan Econ. J.*, May 9, 1987, at 1, col. 1. Another MoF advisory body, the Securities & Exchange Council Committee ("SECC"), promulgated a competing report in April 1987 that recommended that securities futures be traded on the TSE, that direct participation be limited to securities and that the administration of securities-related futures remain regulated by the existing Securities & Exchange Law. *See Securities Firms Fight, supra* note 48, at 3, col. 1. Zenginkyo later withdrew domestic securities from its proposal in order to strike a modus vivendi with the securities industry. *See Banks Move Toward Integrated Futures Markets*, *Japan Econ. J.*, Oct. 24, 1987, at 12, col. 1.
November, 1987, two MoF advisory bodies\textsuperscript{114} released a joint proposal recommending the creation of an integrated financial futures market.\textsuperscript{115} The proposal struck a careful compromise between the competing interests of Japanese banks and securities companies. Both will be able to trade futures in interest rates, currencies, and domestic government bond futures.\textsuperscript{116} Moreover, both are entitled to act as brokers of foreign futures and options to Japanese customers,\textsuperscript{117} except that banks will handle foreign stock indexes\textsuperscript{118} and securities companies will have sole authority over foreign spot currency options.\textsuperscript{119} Finally, the proposal would allow banks to act as brokers for domestic and, perhaps, foreign government bonds, a power already held by securities companies.\textsuperscript{120}

The unified market proposal would empower foreign financial institutions to engage in all of the above listed financial futures products.\textsuperscript{121} This parallels previous decisions by the MoF in which it has granted greater power to foreign firms than their domestic counterparts.\textsuperscript{122}

\textsuperscript{114} These bodies are the FSRCC discussed \textit{supra} note 113, and the Foreign Exchange Council Committee, an advisory body to the MoF's International Finance Bureau.


\textsuperscript{116} \textit{See New Futures Market will Open For Banks, Securities Companies}, Japan Econ. J., Jan. 23, 1988, at 2, col 4 [hereinafter \textit{New Futures Market}].

\textsuperscript{117} \textit{Id.}


\textsuperscript{119} \textit{Id.}

\textsuperscript{120} \textit{See Securities Firms Fight, supra} note 48, at 3, col. 1. The division of responsibilities between Japanese banks and securities firms set forth in this Section is designed to maintain some aspects of Article 65 of the SEL, \textit{supra} note 2, the Japanese equivalent of the American Glass-Steagall Act, Banking Act of 1933, ch. 89, 48 Stat. 162 (codified as amended at 12 U.S.C. §§ 24, 78, 377, 378 (1982)) (separating commercial from investment banking). \textit{See generally} Whitener, \textit{supra} note 118. This involvement of commercial banks in brokerage services or government bonds represents a major setback for the securities industry, which hitherto had a monopoly on domestic government bond brokerage services. \textit{Id.} This will cause securities firms to lose much of these revenues, and perhaps even more damaging, securities firms will lose additional business to banks which conduct the lion's share of government bond trading. \textit{See id.} Banks have dominated the total volume of government bond futures; for example, in August, 1988, banks conducted 62.9\% of all transactions. \textit{See Banks Dominate August Bond Futures Trading}, Japan Econ. J., Sept. 24, 1988, at 29, col. 3.

\textsuperscript{121} \textit{See} Whitener, \textit{supra} note 118.

\textsuperscript{122} For instance, foreign commercial banks with trust departments were allowed to engage in the trust banking in Japan, where there was a separation of domestic commercial and trust banking banks. In addition, the government allowed foreign securities affiliates of foreign commercial banks and foreign universal banks to apply for Japanese securities licenses and, in some cases, obtain seats on the TSE, whereas
B. Incipient Globalization of Cash and Derivative Financial Products Markets

The 1980s have witnessed the beginnings of a global market for cash and derivative financial products. Full globalization will require the satisfaction of two general conditions. First, financial institutions in one country must have access to the cash and derivative financial products markets of other countries. The deregulation of Japanese financial institutions at home and abroad is an important step towards meeting the first condition. Second, countries must take measures that help broaden and deepen their markets for the cash and derivative financial product markets of other countries. While still in its infancy, this latter condition is beginning to be satisfied.

Several countries have begun cross-listing Japanese financial products. In 1986, the Singapore International Monetary Exchange ("SIMEX") took a major step by offering futures trading on the Nikkei 225, two years before the TSE and the OSE initiated stocks index futures trade in Japan. Although the SIMEX Nikkei 225 market originally was plagued by illiquidity and lost most of its potential client base after the TSE and OSE introduced stock index futures trading, it will likely become a viable and growing satellite of these larger Japanese stock index futures markets. First, SIMEX has lower transactions costs than the two Japanese stock futures markets due to lower commission rates and no exchange tax. Second, the SIMEX Nikkei futures contract trades continuously without lunch breaks, and remains open for fifteen minutes after the Japanese markets close, providing for better price determinations. Third, the SIMEX hopes to list options on the Nikkei 225 futures contract by the end of 1988. Fourth, the SIMEX plans to cross-list the futures contract with the Chicago Mercantile Exchange ("CME") when that important U.S. market begins carrying the Nikkei by the end of 1988. Finally, the SIMEX is a broader market, with trad-
ing in other types of futures, and with more to be added, providing a more diversified customer base. Given these differences between the SIMEX and the Japanese stock-index futures and the differences in the Japanese stock-index futures inter se, arbitrage opportunities between the SIMEX and the Japanese markets will occur as arbitrageurs look for price variations in the different markets to exploit and make a profit. This and other inter-market activity will increase liquidity for all products and make these markets more efficient with prices being determined by more buyers and sellers. Of course, the small-lot trading of small, non-Japanese institutions will dominate the SIMEX whereas the large-lot trading of Japanese institutional investors will continue to dominate the Japanese markets.

American and British exchanges and institutions are also joining the cross-listing effort. As discussed above, the CME hopes to trade Nikkei 225 futures contracts by the end of 1988 but, pursuant to an agreement between the U.S. Securities and Exchange Commission ("SEC") and the CFTC, the SEC may check and veto stock futures instruments to ensure sound transactions. In addition, the CBT, the CME's rival, plans to list the TSE's TOPIX index in 1989.

In July 1987, the LIFFE became the first exchange outside Japan to offer Japanese government bond futures contracts, having received the MoF's approval in December 1986. The LIFFE's futures contract is similar to that of the TSE in that traders cannot settle London contracts by physical delivery of the underlying bonds, but must settle in cash based on the closing price of the contract in Tokyo. The CBT initially planned to launch a yen bond contract identical to and interchangeable with that of LIFFE, but perceived problems with rules

131. Id. The SIMEX plans to open a fuel oil futures contract, revive its gold futures contract, and provide an index future for the Singapore stock exchange. Id.
132. Id.
133. See SIMEX Monitors, supra note 127, at 6, col. 1.
134. See SIMEX Trader Sees Boon, supra note 126, at 7, col. 1.
135. See SIMEX Monitors, supra note 127, at 6, col. 1.
136. See text accompanying supra note 130.
138. Id.
regulating the LIFFE contract.\textsuperscript{143} For example, the CBT wants to halve the size of the Tokyo and London contracts\textsuperscript{144} to attract smaller investors and increase liquidity, and wants futures contracts closed in Chicago settled in Tokyo with the actual delivery of bonds.\textsuperscript{145}

In Japan, the TSE plans to list U.S. Treasury bond futures in 1989, a move which will enable Japanese investors to hedge against price volatility in the underlying United States government bonds, which are traded in increasing volumes on the over-the-counter market in Tokyo.\textsuperscript{146} It remains uncertain when and to what extent other foreign derivative financial products will be traded in Japan. The development of these markets will in large part depend on the growth in Japan of cash markets for the underlying foreign financial instruments.

**Conclusion**

Once prohibited as speculative and risky, derivative financial products and corresponding markets are emerging quickly in Japan, broadening and deepening the existing financial markets for the underlying cash instruments. While currently incomplete, this program of liberalization remains necessary to permit investors, institutional or otherwise, to hedge against the volatility inherent in the underlying markets. Only time will determine whether the regulations that made available derivative financial products markets to Japanese investors abroad and at home will be judged a success. Nevertheless, this liberalization process will almost certainly speed the day in which firms will operate within a truly integrated international market for financial products.

\textsuperscript{143} See *Death at LIFFE*, *ECONOMIST*, Sept. 5, 1987, at 77.
\textsuperscript{144} Id. The Tokyo and London markets require contracts of ¥100 million. See id.
\textsuperscript{145} Id.
\textsuperscript{146} *U.S. Treasury Bond Futures to be Listed*, Japan Econ. J., Mar. 12, 1988, at 20, col. 1.