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FRBSF Weekly Letter

Dow-Jones Futures

Futures markets, which are markets in contracts promising delivery of goods or assets at some specified date, have been marked by controversy throughout the century of active trading in this country. The issue in question was, and remains, the benefits or costs which these markets provide to society as a whole.

The Kansas City Board of Trade has recently proposed a new futures market—a market in the 30-stock Dow-Jones industrial average. This proposal promises to be controversial, since a DJI market would not provide the potential social benefits economists have traditionally ascribed to older commodity-futures markets. New social benefits may be possible with such a market, however, as we shall see below. A second article will discuss another interesting possibility—a futures market for consumer prices.

Benefits of commodity futures

Economists have long maintained that the traditional futures markets in farm commodities provide substantial social benefits. Those benefits are the mirror images of two basic problems implicit in commodity spot markets. First, spot-market prices fluctuate violently and unpredictably, making investment in farm commodities a very risky business. Second, farmers as a group tend to be risk averse, but by the very act of farming are forced to bear the risk that the price of their crop will fall. By selling futures contracts, however, farmers can trade away the risk involved in farming to those who are less risk averse, without giving up farming itself.

Futures markets thus generate social benefits when two factors are present: (1) a spot market characterized by large and unpredictable price fluctuations, and (2) a large group of risk-averse individuals who wish to avoid the risk of trading in the spot market. With these two ingredients, the risk-averse participant can trade away his exposed position to others more interested in taking a risk.

Spot-market volumes associated with a futures market must be large, both to insure that the social benefits from the futures market are substantial and to prevent a single trader from "cornering" the market. Federal Reserve Chairman Miller made this point recently in discussing a proposal by the Chicago Mercantile Exchange to trade futures in longer-term Treasury bills and notes. "The volume of bills available to private domestic investors in the one-year bill auctions has, at times, ranged down to only about $1 billion," he said. "Thus, there is concern that a speculator with substantial resources and a large long position in the

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futures market could capture a sufficient share of the new issue in the auction in order to profit from price advances between the auction and delivery of the new bill — on both his futures contracts and his awards of the bill."

Why Dow-Jones futures?

There are two differences between the proposed Dow-Jones futures and ordinary commodity-market futures — a technical difference and an economic difference. The technical difference is that the DJI futures market would not have a corresponding spot market. Rather, the return on this contract would be tied to the entire 30-stock industrial average, with many spot markets determining the value of the average. So there would be many spot markets instead of only one corresponding to this futures market.

The economic difference is that DJI futures would lack one of the two ingredients of commodity-futures markets that usually lead to social benefits — a large group of risk-averse traders who want to cover an exposed position on the spot market. An individual with an exposed position in stocks is not risk averse, because the stock market is the natural home of the risk seeker. The demand for low-risk corporate assets can be met by an alternative form of capital, that is, fixed-income securities.

Nonetheless, a potential social gain exists, because the DJI futures market enables investors to choose among different types of risk. Different factors influence the price of a given share of stock — some affecting stocks in general, and some affecting only a particular firm's stock. Any number of events, from a rise in oil prices to a change in monetary policy, might affect stock values generally. But more specific events, such as a firm's own management decisions, would tend to affect that firm's stock value alone. By selling a DJI futures contract and buying shares in a particular stock, investors could "compartmentalize" price risk, thereby separating the risk specific to a particular stock from the price risk of the stock market as a whole.

Some investors would have a strong incentive to sell Dow-Jones futures contracts. These investors, by choosing the right combination of purchases of some specific stock and sales of DJI futures, could bet on the performance of one firm relative to the market as a whole. An investor who had specific information about the quality of the management of a particular firm, but no special talent for forecasting the economy as a whole, could obtain several significant benefits with his portfolio of securities. First, he could be protected from fluctuations of the overall stock market, but he could also reap the benefits of specialized

knowledge of one particular corporate stock.

Suppliers of Dow-Jones futures might by their very existence create further indirect social gains. Since sellers of such futures would be protected from general market factors but exposed to factors affecting the stock of a particular firm, they would tend to put greater pressure on corporate managers to improve their individual performance vis-a-vis competitors.

One final ingredient is necessary to ensure the necessary social benefits – the existence of a large class of investors who are interested both in avoiding the risks of holding individual stocks and in assuming the risks generated by the market as a whole; in other words, buyers of DJI futures. However, the interest of this group is already assured. This is because the Dow-Jones futures contract would have many of the characteristics of a product of proven appeal – the index fund. Index funds are mutual funds that attempt to mirror the market as a whole. Their chief characteristic is that they hold widely diversified portfolios that are changed infrequently, so that fees for expert advice and trading commissions are kept to a minimum.

In one respect, DJI futures would improve upon index funds, because the only expenses involved would be those from trading the contract itself. On the other hand, DJI futures trading would suffer from the deficiencies of the Dow-Jones average itself. In other words, it would provide a weaker reflection of the overall stock market than some broader measure, such as the Standard and Poor's index of 500 stocks.

Kurt Dew

Copies are now available of the *Academic Conference Proceedings* of the West Coast Academic/Federal Reserve Economic Research Seminar. The *Proceedings* examine, first, the effects of expectations formation on some basic propositions of macroeconomics, and second, the behavior of financial institutions over the business cycle. Five research papers by West Coast academic economists (along with discussion notes) are included in the volume. The *Proceedings* are aimed primarily at an audience of financial analysts and academic economists...Free copies of the *Proceedings* can be obtained by calling or writing the Public Information Section, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 544-2184.

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BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 8/30/78	Change from 8/23/78	Change from year ago Dollars	Change from year ago Percent
Loans (gross, adjusted) and investments*	116,023	+ 321	+ 16,109	+ 16.12
Loans (gross, adjusted)—total	93,691	+ 277	+ 16,347	+ 21.14
Security loans	1,809	− 93	+ 100	+ 5.85
Commercial and industrial	27,803	+ 17	+ 4,013	+ 16.87
Real estate	32,437	+ 189	+ 6,909	+ 27.06
Consumer instalment	17,112	+ 116	+ 3,700	+ 27.59
U.S. Treasury securities	8,664	− 26	+ 247	+ 2.93
Other securities	13,668	+ 70	− 485	− 3.43
Deposits (less cash items)—total*	111,721	+ 940	+ 13,501	+ 13.75
Demand deposits (adjusted)	30,750	+ 593	+ 2,514	+ 8.90
U.S. Government deposits	233	− 21	+ 20	+ 9.39
Time deposits—total*	78,966	+ 384	+ 10,983	+ 16.16
States and political subdivisions	6,617	+ 15	+ 1,315	+ 24.80
Savings deposits	31,570	− 113	− 139	− 0.44
Other time deposits‡	37,582	+ 255	+ 8,618	+ 29.75
Large negotiable CD's	18,274	+ 450	+ 6,984	+ 61.86

Weekly Averages of Daily Figures	Week ended 8/30/78	Week ended 8/23/78	Comparable year-ago period
Member Bank Reserve Position			
Excess Reserves(+)/Deficiency (−)	+ 85	− 31	+ 59
Borrowings	61	38	124
Net free(+)/Net borrowed (−)	+ 24	− 69	− 65
Federal Funds—Seven Large Banks			
Interbank Federal fund transactions			
Net purchases (+)/Net sales(−)	+ 491	+ 1,194	− 146
Transactions with U.S. security dealers			
Net loans (+)/Net borrowings (−)	− 681	+ 347	+ 576

*Includes items not shown separately. ‡Individuals, partnerships and corporations.

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