# Chicago: city of the big straddles

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Chicago is a full-service financial center. In assessing the city's role in the national and international marketplace, it is useful to delineate two broad classes of financial services. One class contains those financial services of which Chicago is *a* major supplier and *a* market participant; the other, those services of which Chicago is *the* major supplier and *the* market maker.

Chicago has retained its historical prominence as a financial center through its continuing ability to meet the investment and credit demands of a large segment of the local market and to compete in the national and international marketplace (See Box). And Chicago in recent years has developed a unique niche—as the birthplace of financial futures and exchange-based options trading.

This article focuses primarily on Chicago as *the* national and international center for futures and options trading. In addition to describing current activity in these markets, some explanations are offered for Chicago's emergence as the capital of financial futures and options. Some assessment also is made concerning Chicago's prospects for retaining its leadership in futures and options and for remaining a prominent supplier of banking and other financial services.

## Futures trading today

In 1981, the three Chicago futures exchanges—the Chicago Board of Trade (CBT), the Chicago Mercantile Exchange (CME) including its International Monetary Market (IMM) division, and the MidAmerica Commodity Exchange—accounted for about 77 percent of the total contract volume of all organized futures trading in the U.S. In October 1982 the dollar value of the CBT's and CME's combined open interest (i.e., the number of contracts still outstanding) is $48.8 billion, or 80 percent of the dollar value of total U.S. futures open interest. The Chicago Board Options Exchange (CBOE) in 1981 accounted for about 53 percent of all exchange-traded options contract volume in the U.S. In 1980, the market value of contracts on the CBOE was $27.9 billion or about 61 percent of the total market value of exchange-traded U.S. options.

In 1976, the combined CBT and CME volume was about 25 million contracts. By 1981, their combined volume had skyrocketed to more than 73 million contracts traded—a 192 percent increase over those six years. A significant portion of this phenomenal growth can be attributed to continued development of financial futures—i.e., foreign currency and interest rate futures. In 1976, financial futures accounted for about 2 percent of CBT-CME volume. In 1981, this had risen to almost 39 percent.

Currently, the CBT's Treasury bond futures contract is the most actively traded futures contract in the United States. In 1981, the average daily dollar volume (at par value) in the CBT's Treasury bond futures contract and the CME's 90-day T-bill futures contract was $27.7 billion. This was $3 billion more than the daily average of transactions in the cash market in all maturities of U.S. government securities of the 36 reporting dealers. So, not only is Chicago the dominant center in futures trading, but in a sense, the dominant center in U.S. government securities trading.

## Chicago's past in futures

That Chicago became the dominant center of futures trading in general was to a large extent a matter of geography. The 1848 completion of a canal joined Lake Michigan to the inland tributaries of the Mississippi River. This canal provided inexpensive water transportation for corn from the interior to Chicago. But corn harvested in late fall and early winter could not be moved from the interior on frozen waterways and thus,

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had to be stored at river grain elevators until the spring thaws. As a result, river elevator operators were subject to considerable price risk over the winter. To hedge this risk, grain elevator operators began to sell corn in the late fall at a firm price for May, or forward, delivery in Chicago.

The Chicago Board of Trade was organized in 1848 for the purpose of trading these forward, or time, contracts in corn. Over time, rules were promulgated that dealt with trading conduct and delivery grade standards. The Chicago Board of Trade became a full-fledged futures exchange in 1865 when a clearinghouse was established.

The Chicago Mercantile Exchange traces its ancestry back to the Chicago Produce Exchange, formed in 1874. This exchange served as a cash market for butter, eggs, poultry, and other perishable agricultural products. In 1898, the butter and egg dealers withdrew from this exchange to form the Chicago Butter and Egg Board.

Later, as the exchange's cash business in butter and eggs waned, its membership looked for additional lines of business to revive it. Because there was a considerable amount of forward contracting in eggs and, perhaps, because the neighboring CBT had been trading futures for years, the membership decided to trade futures in butter and eggs. Trading began in 1919, and the exchange became known as the Chicago Mercantile Exchange.

More than half-a-century later, a major breakthrough occurred in futures trading when the newly-formed International Monetary Market division of the Chicago Mercantile Exchange began trading foreign currency futures in 1972. This innovation pioneered the concept of trad-

**Some financial dimensions**

Chicago is home to some of the largest financial institutions in the nation, including

- 2 of the 10, and 5 of the 100, largest commercial banks ranked by total assets;
- 2 of the 10, and 4 of the 50, largest savings and loan associations ranked by total deposits.

The Chicago SMSA is home to 10 of the 100 largest finance companies ranked by total capital and to some of the largest insurance companies, investment banking houses, and brokers and dealers in bonds and equities.

Chicago is a major supplier of retail and wholesale banking services in local, national and international markets. Some figures:

- The 404 insured domestic commercial banks in the Chicago SMSA hold approximately $97 billion* in domestic assets, accounting for 5.6 percent of such assets of all insured U.S. banks.
- The 95 domestic banks located in Chicago have domestic assets of about $76 billion.
- The 95 domestic Chicago banks have about $18 billion of domestic assets exposure to non-U.S. residents, representing about 9 percent of such foreign lending of all U.S. domestic banks.
- Two Chicago banks rank among the nation's 10 largest holders, and 3 more are among the top 25 holders, of interbank demand deposits.
- Domestic Chicago banks own 8 Edge corporations—5 in Chicago and 3 elsewhere—engaged strictly in international banking operations.
- Chicago banks and Chicago offices of foreign banks own about 20 branches of Edge corporations in U.S. locations outside of Chicago.
- Domestic banks headquartered outside of Chicago own more than a dozen Chicago offices of their Edge corporations.
- Foreign banks have established 42 Chicago branches since 1973 when foreign bank branches were permitted under Illinois law.
- Foreign banks are majority owners of 2 domestic Chicago banks and 4 Chicago offices of Edge corporations.
- The 48 Chicago offices of foreign banks have total assets of about $10 billion, representing about 4 percent of the total assets of all U.S. offices of foreign banks.
- Eight Chicago banks have over 60 foreign branches with total asset exposure to non-U.S. residents of about $40 billion.
- Chicago banks and Chicago offices of foreign banks have established about 25 International Banking Facilities since December 1981 when these in-house foreign depository-lending facilities were authorized by Federal Reserve regulation.

*Dollar amounts are as of June 30, 1982.

ing futures in something other than a physical commodity.[1] Soon, interest rate futures appeared—GNMA futures (October 1975, CBT), 90-day T-bill futures (January 1976, IMM), and Treasury bond futures (August 1977, CBT). Contracts in other maturities of government securities, and commercial paper, domestic CDs, and Eurodollar time deposits have since been introduced. The Eurodollar contract also represented a breakthrough by introducing cash settlements for open expired contracts rather than actual delivery of the "commodity."

The acceptance of cash settlement has spawned the development of stock market index futures. Futures on the S&P 500 stock index began trading at the IMM in April 1982. In just six months, the daily volume of trading in this contract rivaled that of 90-day T-bill futures, the IMM's most successful previous financial futures contract. The CBT introduced options on financial futures in October 1982.

In 1973, Chicago was the site of another financial innovation—exchange-traded options on equities at the newly-created Chicago Board Options Exchange. When the CBOE opened, it listed call options in 16 stocks and put options in none. At year-end 1981, calls had grown to 120 and options to 119. The CBOE also introduced options trading on U.S. government securities.

It is understandable that Chicago became a dominant center in futures trading for agricultural products, given its location and transportation facilities. But how did it come to be dominant in the trading of futures and options on financial instruments? By all rights, New York City, the U.S. center of equities and fixed-income securities, also ought to lead in the trading of their derivative instruments. The reason for Chicago's dominance in these instruments has to do with economies of scale and that nonquantifiable variable, entrepreneurial spirit.

### Working's hypothesis

A good part of futures market "infrastructure" was in place in Chicago at the beginning of the 1970s. The physical plant and management already existed. Moreover, there already existed a group of well-capitalized and experienced local floor traders who could provide the requisite liquidity to the markets so as to attract public participants—hedgers as well as speculators. Stanford University's Holbrook Working, a distinguished student of the futures markets, highlights the importance of this infrastructure:

> An exchange that conducts futures trading in a number of different commodities can provide a more uniformly fluid market for any one of them than could an exchange dealing only in that one commodity. That is especially true for a commodity in which trading is light. To maintain a highly fluid market, scalpers must operate on an almost infinitesimally small profit margin, and a professional floor trader can afford to do that only if he does a great volume of business. That is not possible on a single-commodity exchange with a small volume of trading; but it is possible in a small futures market operating on a multi-commodity exchange, where a floor trader is not restricted to dealing only in that one commodity. Futures markets that are individually small can prosper modestly on a multi-commodity exchange whereas attempt *(sic)* to operate them separately would fail, for much the same reason that retail trade in a small and isolated town must be conducted in a "general store" rather than a number of specialty shops.[2]

Working's hypothesis may partially explain why New York City's futures exchanges have failed to capture a larger market share of financial futures trading. In September 1978, the American Commodity Exchange (ACE), a subsidiary of the American Stock Exchange, began trading GNMA futures. ACE added 90-day T-bill futures and Treasury bond futures to its menu in June 1979 and November 1979, respectively. By September 1980, however, ACE volume was so low that it was acquired by the newly-organized New York Futures Exchange (NYFE), a subsidiary of the New York Stock Exchange.

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[1] While this was a milestone for futures trading, it should be noted that there was already a well-established interbank forward market in foreign currencies.

[2] Holbrook Working, "Economic Functions of Futures Markets," in *Selected Writings of Holbrook Working*," compiled by Anne E. Peck, Board of Trade of the City of Chicago, 1977, p. 284.

ACE's demise could have been predicted from Working's hypothesis. It was a new exchange trying to trade low-volume contracts. It lacked a significant group of experienced and well-capitalized local floor traders to provide the necessary liquidity. Moreover, the exchange did not offer a diversified set of contracts or any high volume contracts to support the traders. And all of the ACE contracts were already being traded relatively successfully on the Chicago exchanges. NYFE, until recently, seemed destined to meet with the same fate as its acquisition. NYFE was also trading duplicates of futures contracts traded at the Chicago exchanges. Recently, however, volume on the NYFE has picked up because of its new and exclusive futures contract on the New York Stock Exchange index.

Another New York exchange, the Commodity Exchange (COMEX) also has ventured into financial futures. COMEX, unlike ACE and NYFE, is an established exchange and the leader in metals (gold, silver, and copper) futures trading. With established and high volume contracts, COMEX might have been expected to generate more than minimal volume in financial futures. But again, COMEX's financial futures contracts are essentially duplications of established Chicago contracts.

A somewhat different outcome has occurred with regard to options trading. The CBOE began trading call options on equities in April 1973. Unlike the Chicago exchanges' experience with financial futures, CBOE's dominance in equity options trading has diminished, with competition coming from options trading on the American Stock Exchange (January 1975), the Philadelphia Stock Exchange (June 1975), and the Pacific Stock Exchange (March 1976). Despite this competition, the CBOE retained over 50 percent of the options contract volume in 1981.

**Chicago's financial future**

The outlook for Chicago to continue as the financial center in futures and options trading is good indeed. The use of financial futures by institutions is still in its infancy. In this new era of increased interest rate volatility and deregulation of our financial system, depository institutions will be forced to manage their assets and liabilities more actively if they are to survive. Financial futures and options are additional tools that can be employed to this end.

Recently, large banks have begun to establish financial futures units either in-bank or in holding-company subsidiaries to provide consulting and brokerage services to the public. Given their correspondent relationships with smaller banks and other financial institutions, these large-bank financial futures units can be expected to generate increased institutional participation in the futures markets. Stock index futures, options on futures, and options on fixed-income securities have started trading only in recent months. The industry believes that these new instruments will match the success of the IMM's S&P 500 index futures contract.

The outlook for Chicago's share of the market of other financial services may not be quite so sanguine due to secular production and population trends. The composition of U.S. output appears to be moving more toward the services and light manufacturing industries, and away from capital goods and heavy manufacturing in which the Midwest has specialized. A possible offset may be the entrance of traditionally nonfinancial businesses into the financial services industry. Sears Roebuck and Company is an obvious example. Sears, with such subsidiaries as Allstate Insurance, Dean Witter Reynolds, and Coldwell Banker, along with its mammoth consumer credit card operations, may become a major provider of retail financial services. This potential is enhanced by Sears' relative lack of regulatory impediments.

With regard to banking, the current move toward deregulation and, to a limited degree, decreased taxation should help Chicago banks compete locally, nationally, and globally. In December 1981, the Federal Reserve authorized the opening of International Banking Facilities (IBFs). Through their IBFs, U.S. banking offices may accept deposits from and make loans to foreign residents, including foreign banks, without being subject to Regulations Q and D or to FDIC insurance coverage and assessments. Moreover, Illinois has granted favorable tax treatment under state law for IBF operations.

Illinois state law prohibits statewide commercial bank branching. This regulation has surely put Chicago banks at a disadvantage to their New York and California counterparts. If it were not for well-developed federal funds and large negotiable CD markets devoid of Reg Q ceilings, Chicago banks would be at an even greater disadvantage. A minor crack in the Illinois law was made in 1981, effective 1982, when multibank holding companies were permitted on a limited basis in contiguous counties.

To develop a specific plan for local business and political leaders to follow in order to enhance Chicago's financial role would be very difficult. However, actions that would tend to diminish Chicago's role readily come to mind.

In the mid-1970s an existing stock transfer tax in New York City was increased and a new bond transfer tax was imposed. In response, many securities firms threatened to move and, in some cases, actually relocated. Securities exchanges also gave thought to relocating. In reaction to the actual and threatened exodus of the securities industry from New York City, the bond transfer tax was repealed, and in 1976 the burden of the stock transfer tax was reduced. By June 1981, the collection of the New York City stock transfer tax had been phased out.

Increased taxation and/or regulation of financial production in which Chicago specializes would, all else the same, detract from the city's role as a provider of these products.[3] The worst case for Chicago would be to tax the futures and options industries sufficiently to induce them to move elsewhere. A step along that "worst case" path was nearly taken in 1973 when a local revenue proposal emerged that would have imposed a transfer tax on transactions consummated on organized financial exchanges located in Chicago. In response to this proposal, the CBT and CME began investigating relocation sites outside the Chicago city limits. The transfer tax proposal was withdrawn.

At the national level, amendments to the Futures Trading Act of 1982 were introduced that would have empowered the Commodity Futures Trading Commission (CFTC)—the Federal agency with regulatory jurisdiction over U.S. futures trading—to impose a transaction fee or tax on all futures trades in order to defray some of the Commission's expenses. These amendments were defeated. However, the final form of the Futures Trading Act of 1982 passed by Congress and signed by the President authorizes the CFTC to charge appropriate fees for services rendered and activities performed incidental to its regulatory responsibilities. User fees may not be as onerous as a transaction tax *per se*, but they still represent an increase in the cost of conducting futures trading. Increased taxation or regulation at the national level could be just the boost needed to get a proposed Bermuda-based futures exchange or the London International Financial Futures Exchange, which opened its doors and floors in September 1982, off and running. If the notion of driving our futures business offshore appears to be farfetched, consider what has happened in banking. Many analysts would agree that Regulations Q and D have played a significant role in the growth of the London and Caribbean Eurodollar markets.

Chicago has truly come of age as an international financial center and, in many areas, as an unrivaled financial innovator. In his poem "Chicago," Carl Sandburg characterizes the city as "Stormy, husky, brawling." To observe the trading in the pits of Chicago's exchanges is to understand his description. Writing today, Sandburg might say:

> Frozen pork belly trader of the world,
> International market maker, stacker of
>   wheat futures,
> Player with stock options, financial
>   futures,
> And, now, options on futures;
> Stormy, husky, brawling,
> City of the big straddles.

[3]This discussion is focused on the impact of increased taxation and regulation of financial products on Chicago as a provider of these services. It does not address the issue of whether the public interest is better served by such taxation or regulation.