

An Introduction to CME Equity Products



What Are Futures and Options?

Futures contracts are standardized, legally binding agreements to buy or sell a specific product or financial instrument in the future. The buyer and seller of a futures contract agree on a price today for a product to be delivered or settled in cash at a future date. Each contract specifies the quantity, quality and the time and location of delivery and payment.

The value of a futures contract is derived from an underlying financial measure or market, such as equity index levels, currency exchange rates, interest rates or commodity prices – hence the term *derivatives*. As the value of the underlying measure or market changes, the value of the futures contract based on that measure or market also changes. Institutions and individuals that face financial risk based on the movement of the underlying measure or market can buy or sell futures that will change in value to offset that financial risk. Such transactions are known as *hedging*. Institutions and individuals also buy and sell futures hoping to profit from price changes. These transactions are considered *speculation*.

CME also offers investors options on futures. Options can be thought of as insurance policies. The option buyer pays a price for the right – but not the obligation – to buy or sell a futures contract within a stated period of time at a predetermined price. The combination of options and futures – both risk-management tools – can give market participants the leverage of futures and the more limited risk of options. Options provide the opportunity to limit losses while maintaining the possibility of profiting from favorable changes in the futures price.



Global Leadership in the Financial Marketplace

CME is the largest and most diverse financial exchange in the world for trading futures and options – handling nearly 800 million contracts worth more than \$460 trillion in a single year. Founded in 1898, we serve the risk-management needs of customers around the globe by offering the widest range of benchmark financial products available on any exchange, traded via our CME Globex electronic trading platform and on our trading floors.

Our innovative products cover major market segments – including equities, interest rates, foreign exchange, commodities and alternative investment products – and improve the way these markets work for customers everywhere. In addition, our clearing house matches and settles all trades and guarantees the creditworthiness of every transaction that takes place in our markets.



Overview of CME Equity Products

The advent of CME equity futures products in 1982 has enabled investors to effectively manage stock market risks, increasing their confidence and overall participation in these important markets. By serving as flexible, efficient risk management tools for managing equity exposure, CME equity futures have been instrumental in driving further growth and liquidity in the underlying stock market. In fact, many investors would be unwilling or unable to invest in stocks to the same degree they do today without the benefit of these products. This ability to efficiently manage equity market risk has contributed to the tremendous expansion of investor participation in equity markets over the past 20 years.

Equity futures are agreements to buy or sell the value of a specific stock index at a specific price on a specific date in the future. Because a portfolio including all possible securities would be too broad, cumbersome and expensive to track and measure, investors use stock indexes as benchmarks that measure the price performance of groups of stocks against the movement of the total market. CME equity futures closely follow the price movements of the underlying or cash indexes on which they are based. They offer an efficient, cost-effective alternative to trading stock index values or hedging against adverse market fluctuations without trading the actual stocks or indexes themselves in the securities markets.

CME is the dominant marketplace for equity derivatives. More than 90 percent of all U.S. stock index futures and options are traded at our exchange. It is one of the world's most liquid trading environments for equity products. With exclusive licenses for trading futures products based on the S&P 500 and NASDAQ-100 Indexes, CME offers the widest array of equity futures and options on futures products, which also include the Russell 1000 and Russell 2000 Indexes, the S&P MidCap 400 Index, and the Nikkei 225 Index. The CME equity futures product line includes full-size institutional contracts as well as smaller electronically traded (E-mini) versions that appeal to institutions and individual investors alike. CME E-mini S&P 500 and CME E-mini NASDAQ-100 futures are among the fastest growing futures contracts in the history of the industry. For a complete list of CME equity products, see page 8.

Why Use CME Equity Products?

The rapid price changes associated with investing in equity markets create trading opportunities, but also can generate tremendous risk. Since introducing our benchmark S&P 500 Stock Index futures contract in 1982, CME has been helping equity market participants transfer that risk. CME equity futures and options on futures contracts closely follow the price movement of their respective underlying indexes, providing risk management and investing opportunities for financial professionals and individual investors.

Hedgers and traders who purchase (go long) a CME equity index futures contract hope to gain from future price increases. Correspondingly, traders who initially sell (go short) CME equity futures hope to gain if the price of the contract declines.

For example, an investor with a diversified stock portfolio that is highly correlated with the S&P 500 Index could use CME E-mini S&P 500 futures to hedge or protect his or her portfolio against the financial impact of a short-term bearish market by selling (going short) CME E-mini S&P 500 futures. Using futures to achieve this protection is more cost efficient and less disruptive to the investor's portfolio than selling off portions of the positions of the hundreds of stocks that make up the portfolio. If the investor's market forecast is correct and S&P 500 Index decreases in value, the investor will buy CME E-mini S&P 500 futures later at a lower price. If the investor sells at a price that is higher than he or she paid, the transaction will be profitable. The investor's goal is to make a profit on the futures that can offset the loss on the actual stocks. If, however, the investor's forecast is incorrect and S&P 500 values increase, the investor will have lost on the futures purchase but hopefully benefited from increased value of the portfolio.

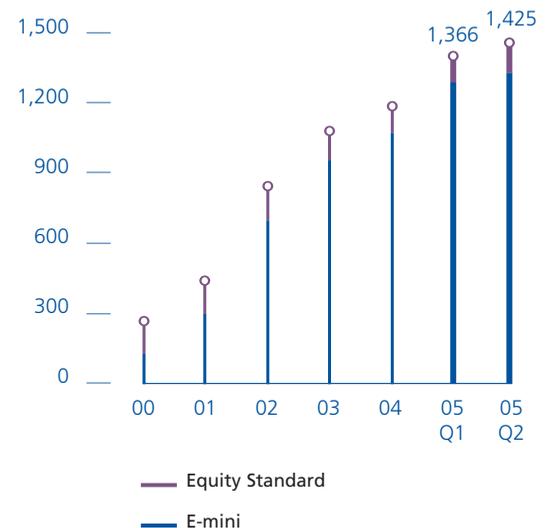


Who Trades CME Equity Products?

CME equity futures and options are traded by public and private pension fund and mutual fund managers, investment companies, insurance companies, individuals, hedge funds and other financial services companies that benchmark their investment performance to different segments of the equity markets. Others, such as day traders or position traders, trade CME equity products to speculate on the price fluctuations of the stock market. For example:

- » Public and private pension funds, investment companies, insurance companies and pension fund managers use CME equity products to hedge against adverse price fluctuations in the stock market. CME equity products enable pension fund managers, for example, to manage the value of a fund without disturbing the holdings in the portfolio.
- » Mutual fund managers receive daily cash flows into their funds. Many of them use CME equity products to equitize – invest – the cash. This enables the managers to participate in market movements but is easier, faster and less costly than buying or selling stocks. Additionally, trading CME equity futures does not affect capital gains and prevents loss of dividends from selling the stocks.
- » Hedge fund managers may use CME equity products to capture a profit based on a macro view that they have on the U. S. equity market. Managers who expect a market downturn will sell (go short) CME equity products. Conversely, managers expecting an upturn in the market will buy (go long) CME equity products
- » A sophisticated, professional day trader may use CME equity products to attempt to take advantage of the continuous intra-day and daily movements of the equity indexes. CME E-mini products – both futures and options – are particularly well-suited to day traders, offering a contract size that is attractive to individual traders and around-the-clock availability.

CME Equity Products
(Average daily volume, round turn in thousands)





Advantages of CME Equity Markets

CME equity futures offer benefits to both professional and individual investors that are not available in the securities markets. CME equity futures can be used as hedging instruments, to protect a portfolio against a declining market. They can also be used with spreading strategies, to take advantage of the relative out-performance of one sector of the market versus another. It can be more efficient to trade stock index futures than stocks because the futures trade involves just one transaction to get into the market and one to get out, while selling a basket of equity securities requires numerous transactions.

In addition, CME equity futures offer:

- » A fast, cost-effective way to actively trade products that track the stock indexes.
- » The equivalent of broad market exposure to a variety of major stock indexes.
- » Substantial liquidity in terms of large open interest, volume and tight bid/offer spreads.
- » Electronic access around the globe and virtually around-the-clock throughout the trading week.
- » Lower trading costs compared with trading a basket of stocks or Exchange Traded Funds (ETFs).

Intra-day, monthly and yearly correlations between cash indexes and futures are very close. On some occasions, the futures may diverge from the cash index for short periods of time, but market forces (such as arbitrage) usually work to bring these brief variances back into line. The rapid price changes associated with stock indexes and stock index futures create continuous trading opportunities.

Efficiency and Liquidity

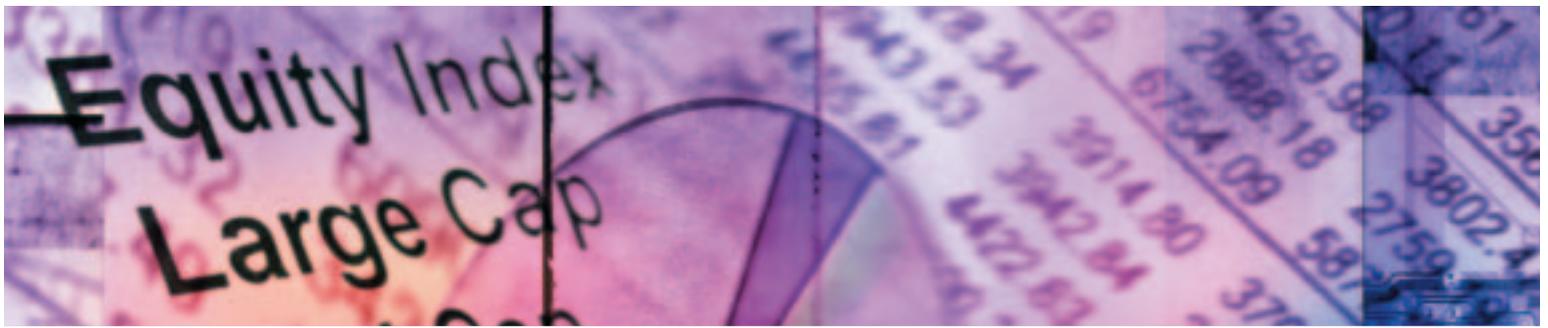
More efficient than trading a basket of stocks

A number of research reports completed by leading investment banks indicate that trading CME equity futures is in fact more efficient and cost-effective than trading a basket of stocks. When comparing the total cost of liquidity, brokerage commissions, exchange fees, the bid/ask spread and the cost to carry the equity, CME equity futures products were found to be more efficient.

CME equity futures market provides deep liquidity

CME is one of the world's most liquid trading environments for equity products:

- » The notional value of all the trading volume in CME equity futures products is more than double that of the New York Stock Exchange.
- » The notional value of trading volume in CME E-mini S&P 500 futures, one of the most liquid markets in the world, is eight times larger than the SPDR ETF market.
- » The notional value of trading volume in CME E-mini NASDAQ-100 futures is four times larger than the QQQQ ETF market.



Pricing of CME Equity Futures Contracts

To determine the value of a stock index futures contract, you need to know its multiplier and the current index futures level. The multiplier varies for each CME equity product. The index futures level changes continuously.

For example, the value of one CME E-mini S&P 500 futures contract is \$50 x the level of the futures index. If the S&P 500 futures index level is 1200, multiply that by \$50, which equals \$60,000 ($1200 \times \$50 = \$60,000$). Thus, if you buy one CME E-mini S&P 500 futures contract at 1200, you are trading an instrument valued at \$60,000.

In contrast, the value of the CME E-mini NASDAQ-100 futures contract is \$20 x the level of the futures index. If the NASDAQ-100 futures index level is 1600, multiply that by \$20, which equals \$32,000 ($1600 \times \$20 = \$32,000$). Thus, if you buy one E-mini NASDAQ-100 futures contract at 1100, you are trading an instrument valued at \$32,000.

Futures traders are not required to put up the full contract value. A performance bond (a minimum deposit in each trader's futures account, the amount of which varies according to what is being traded) enables the trader to control a considerable amount of product for a fraction of its value.

The multipliers for each CME equity product, and all other contract specifications for these products, can be found in the equity product section of the CME Web site.

Calculating Profits and Losses in Trading

Unlike stocks, which move in penny increments, futures contracts move in minimal increments called "ticks." The value of a tick is different for each futures product.

For example, the value of a tick for a CME E-mini S&P 500 futures contract is 0.25 index point. The value of a 0.25 tick is therefore $\$50 \times 0.25$, or \$12.50 per contract. Thus:

- » A move of one tick, from a 1200.00 index value to 1200.25, equals \$12.50.
- » With this move, a long (buying) position would be credited \$12.50, and a short (selling) position, debited \$12.50.
- » A move of one entire CME E-mini S&P 500 futures index point – the equivalent of four ticks – would equal \$50.

In contrast, the value of a tick for a CME E-mini Russell 2000 futures is 0.10 index point. The value of a 0.10 tick is therefore $\$100 \times 0.10$, or \$10 per contract. Thus:

- » A move of one tick, from 670.00 to 670.10, equals \$10.
- » With this move, a long (buying) position would be credited \$10, and a short (selling) position debited \$10.
- » A move of one entire CME E-mini Russell 2000 futures index point – the equivalent of ten ticks – would equal \$100.

Equity index levels change continuously, and with each change, the holder of an equity futures contract either gains or loses based on the original price at which the holder bought or sold the contract. Twice daily, every CME futures contract is "marked-to-market," meaning a closing price is determined for each contract and all traders' accounts are settled according to whether that account has gained or lost value.

By quantifying the economic risk of shifts in equity prices, a financial manager can determine the appropriate number of contracts to buy or sell to create an offsetting position in CME equity products. In this way, the manager is able to hedge equity-price-related risk or take advantage of price differences.

Please note: These examples do not include transaction fees (brokerage fees and other fees) which would need to be part of a complete analysis of hedging equity price risk.



Electronic Trading Around the Clock, Around the World

As a leader in electronically traded derivatives products, CME enables customers to access the widest array of benchmark futures and options contracts available on any exchange, via our CME Globex electronic trading platform. Trading on CME Globex is available on a single platform, virtually 24 hours a day – more than any other exchange in the world. Our customers can access the CME Globex trading platform through 740 direct connections in 27 countries around the world, as well as through telecommunications hubs – located in London, Amsterdam, Dublin, Frankfurt, Gibraltar, Milan, Paris and Singapore – that provide reduced connectivity costs, increased accessibility, and fast, efficient trading of CME products.

The platform's open architecture enables customers to access CME Globex using their own proprietary trading applications or the systems provided by futures brokers and independent software vendors, as well as a CME-provided trading application. In conjunction with the security of the CME Clearing House guarantee, the CME Globex trading platform offers speed of execution, transparency, anonymity and market integrity. Traders are able to see the top prices and other data right on their screen and transactions are executed in less than a second. The advanced capabilities of the CME Globex platform allow traders to execute all of the traditional (outright) transactions in futures as well as a variety of spread trades, including highly complex options spreads.

With extensive growth in demand for electronically traded options on CME E-mini products, CME has significantly expanded its options technology and is committed to an ongoing process of technology enhancements. To serve customers, CME now also provides free real-time electronic options quotes on its Web site on three key CME E-mini products: CME E-mini S&P 500, CME E-mini NASDAQ-100 and CME E-mini Russell 2000 contracts. The site enables customers to track these fast-growing markets with an overview page focused on at-the-money options and daily volumes. It also offers detailed options quotes – calls and puts – for all traded strike prices. It can be viewed at www.cme.com/trading/dta/real/index and then by clicking on E-mini Equity Index Options.

Futures Terms

Futures prices are listed in daily newspapers and other media. These are the terms you will typically see.

Expiration month: The month and year in which a futures or options contract will expire and be settled.

Open: The average price at which the first bids and offers were made or the first transactions were completed during the trading period.

High: Top bid or top price at which a contract was traded during the trading period.

Low: Lowest offer or the lowest price at which a contract was traded during the trading period.

Settlement price: The official daily closing price, typically set at the midpoint of the closing range.

Net change: The amount of increase or decrease from the previous trading period's settlement price.

Yield settlement: The interest rate implied by the settlement price.

Volume: The number of contracts traded (one side of each trade only) for each delivery month during the trading period.

Open interest: The accumulated total of all currently outstanding contracts (one side only). Refers to unliquidated purchases and sales.



Fully Integrated Clearing

At CME, we operate our own clearing house that matches and settles all trades and guarantees the creditworthiness of every transaction that takes place in our markets. Our integrated clearing function ensures the safety and soundness of our markets and helps differentiate us from our competitors.

With the CME Clearing House serving as counterparty to every trade – e.g., in the clearing process it becomes the buyer to each seller of a futures contract and the seller to each buyer – credit risk is virtually eliminated. Performance bond (collateral) deposits are required at each level in the clearing process – customer to broker, broker to clearing firm, clearing firm to clearing house. The performance bond is a good-faith deposit that represents the minimum amount of protection against potential losses.

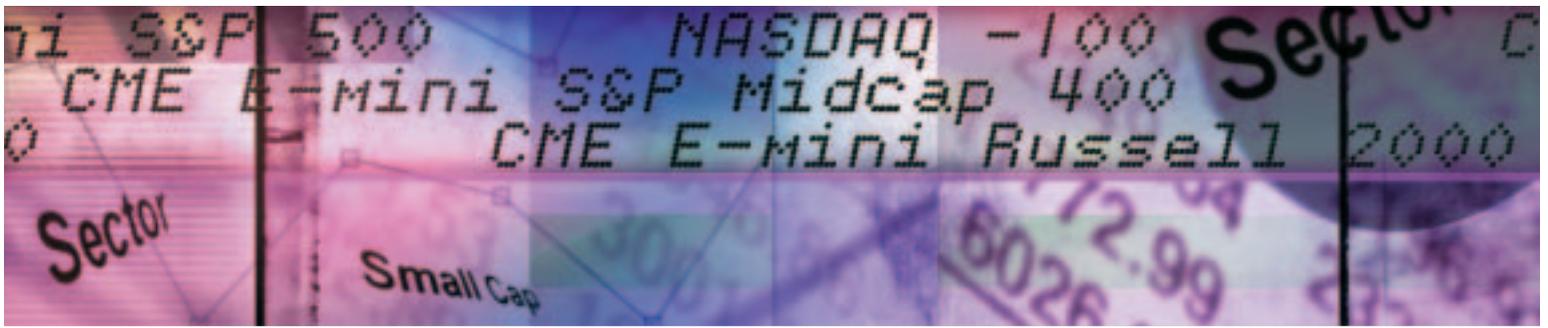
The CME Clearing House handles more than 90 percent of all futures and options contracts traded in the U.S. This requires management of the substantial exposure that results from transferring more than \$460 trillion of risk and guaranteeing the performance of each of nearly 800 million contracts annually. On a daily basis, we hold nearly \$45 billion of collateral deposits to support the transactions that are being made in CME's markets. Twice daily, we move between \$1.5 billion and \$6 billion of funds to and from market participants.

Getting Started in CME Equity Futures

Today's greater need for risk management and hedging tools has required investors to become increasingly sophisticated about futures and options on futures products.

With customers around the world; a diverse product line; deep, liquid markets; around-the-clock electronic trading on a single platform and strategic alliances with other exchanges, CME is truly a global marketplace. Why not make it yours?

For additional information to help you get started trading CME equity products, please visit our Web site at www.cme.com/trading/prd/equity. You will be able to access a number of other brochures and online seminars as well as marketing and education materials that can answer your questions or help you to begin trading these products. Additionally, if you would like to talk to a CME representative, please call our Customer Service Line, 1-800-331-3332.



CME Equity Products

CME offers a complete range of futures and options products based on a variety of different indexes, including:

CME S&P 500 and CME E-mini S&P 500 Futures and Options

The S&P 500 Stock Index is the benchmark by which professionals measure portfolio performance. Listing the stock prices of 500 large-capitalization companies, the index is designed to be an accurate proxy for a diversified equity portfolio. CME E-mini S&P 500 futures are one of the largest, most liquid stock index markets in the world.

CME NASDAQ-100 and CME E-mini NASDAQ-100 Futures and Options

CME offers products based on the NASDAQ-100 Index. Created in 1985, the index is comprised of 100 of the largest domestic, non-financial common stocks listed on the Nasdaq Stock Market.

CME MidCap 400 Futures and Options and CME E-mini MidCap 400 Futures

CME offers products based on the S&P MidCap 400 Index, a key benchmark for tracking a diverse basket of mid-size U.S. companies. Mid-size refers to companies with a market capitalization of approximately \$2 billion to \$10 billion.

CME E-mini Russell 1000 Futures

The Russell 1000 Index measures the performance of the top 1000 companies in the large-cap U.S. equity universe and represents approximately 92% of the U.S. market. CME is a Russell 1000 company.

CME Russell 2000 and CME E-mini Russell 2000 Futures and Options

CME offers products based on the Russell 2000 Index, a benchmark for small-capitalization stocks that consists of the next 2000 companies in the Russell 3000. Together, the Russell 1000 and Russell 2000 indexes comprise the Russell 3000 Index, which represents approximately 98% of the investable U.S. equity market.

CME Nikkei 225 Futures and Options

The Nikkei 225 Stock Average, Japan's most widely followed and most frequently quoted equity index, comprises 225 top-tier (the "bluest" chip) Japanese companies listed in the First Section of the Tokyo Stock Exchange. CME Nikkei 225 products can be traded in either dollars or yen.

CME E-mini NASDAQ Biotechnology Index Futures

The NASDAQ Biotechnology Index is comprised of over 160 leading biotechnology and pharmaceutical companies.

CME S&P SmallCap 600 Futures

The S&P SmallCap 600 Index tracks companies with a market capitalization between \$300 million and \$2 billion.

S&P 500 Barra/Growth and Barra/Value Futures

The S&P 500 Barra/Growth and Barra/Value Indexes track the two predominant investment styles in the U.S. equity market – growth and value.

CME GSCI Futures and Options

The Goldman Sachs Commodity Index is a benchmark index that measures the level of world commodity prices. The CME GSCI futures contract is comprised of 24 liquid, exchange-traded futures contracts.

CME SPCTR Futures

The benchmark S&P 500 Index is comprised of several industry-specific sectors. CME offers SPCTR futures on the S&P 500 Financial Sector Index and the S&P 500 Technology Sector Index.

CME also offers futures and options on three of the largest and most actively traded Exchange Traded Funds (ETFs) in the U.S.:

- » Standard & Poor's Depository Receipts
- » NASDAQ-100 Index Tracking Fund
- » iShares Russell 2000 Index Fund

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