Know Your Options

Listed options: A brief history

by Daniel P. Collins

Trading options, on both futures and equities, is such an integral part of most portfolios — either to gain outright exposure or to hedge other market risks — that it's hard to believe they've only been around as a listed market since 1973.

William J. Brodsky had a deep connection to the Chicago Board Options Exchange (CBOE) long before he became Chairman and CEO of the world's first option exchange in 1997. Brodsky was an attorney for the securities brokerage and investment banking firm of Model, Roland and Co. in New York in the late 1960s when the concept of a Chicago exchange to list equity options was just being floated. Brodsky was assigned the task of learning about the new products and became one of the early seat holders. He bought a seat for $10,000 and had to pass an exam to qualify his firm as a registered options principal. Brodsky also wrote an article about CBOE for a securities law review. That made him an instant expert because there was so little known at the time about listed options.

Back then equity options were an over-the-counter market where a small group of boutique firms served as market makers in the Put & Call Brokers and Dealers Association.

(Commodity options had long been banned after bad experiences with them dating back to the 1930s).

"Big firms would go to OTC option boutiques to trade," Brodsky says. "The boutiques made markets. [End users] had to trade with the same firm [that] would tell you what they would pay for it to get out."

Established firms were cynical about the CBOE, viewing it the same way a big box retailer viewed Amazon, says Brodsky. "After CBOE, the world didn't need [the boutique dealers]. The real genius of CBOE was to make what were non-standardized contracts, fungible. The founders of CBOE figured out a way to trade an IBM option in the same way you would trade wheat, corn or soybeans. An IBM July 100 call, no matter who bought it or sold it, was the same; whereas in the OTC market if I traded with [one of the OTC options dealers] an IBM, I couldn't go to another one of these firms to get out."

As CBOE was rolling out listed options, the American Stock Exchange (Amex) took notice. While Nasdaq was just getting started, Amex was the established player for small-cap stocks. "After a company went public they would trade on Nasdaq. When they got big enough, they would go to Amex and when they got bigger still, they would go to the [New York Stock Exchange (NYSE)]," Brodsky says.

Amex never got the benefit of keeping companies. They offered highly speculative low-cost stocks for traders who weren't capitalized enough to trade expensive stocks, according to Brodsky. And when the stock grew and became more liquid, the company would move its listing to the NYSE from Amex.

"As CBOE opened, traders would ask, 'Why do I want to buy a $3 stock of a company that I don't know as opposed to buying a call on IBM? I understand IBM and there is a lot more liquidity,'" Brodsky says.

This was a challenge to Amex in the early 1970s, which was already a bad time for equity exchanges. "Amex realized that some of its greatest customers were leaving to trade options instead of cheap stock, so Amex quickly said, 'Whatever this CBOE thing is, we better try this' so they were the first exchange to get into options once CBOE had created the concept," Brodsky says.

And Brodsky, being an expert by virtue of being one of the first members and writing a paper on the new exchange, would join Amex to help them catch up.

It took CBOE nearly five years to navigate the Securities and Exchange Commission (SEC) registration process. They get a pass on this one as CBOE was the first new securities exchange since the creation of the SEC.

CBOE from day one offered certificates and next day settlement, according to Brodsky, who says that was a concept totally alien to the stock market. "They were bringing in futures market concepts of next day settlement of certificateless trading and a clearinghouse that stood between every buyer and seller."

There was some push back to the concept by the SEC. Hal Weitzman noted in a history of Chicago exchanges for the World Federation of Exchanges that Irving Pollock, the SEC Director of Trading and Markets (later a commissioner), reportedly told Chicago Board of Trade (CBOT) officials not to even waste a nickel on the venture.

However, Brodsky points out that there were some common practices at stock exchanges the SEC was upset with and CBOE offered a different way of doing business.

"They created a competitive market maker system," he says. "If you wanted to trade a stock, you had to go to a floor and deal with a specialist. CBOE said they don't like the idea of one person in charge of the market. They took a futures market concept and said, 'We are going to allow anyone who wants to trade and we are not going to let the so-called specialist be responsible for the entire book.' They separated the agent and the dealer capacity of the specialist."

One aspect of the futures world the SEC did not like was an exchange-run clearinghouse, so when Amex launched in January 1975 and the Philadelphia Stock Exchange (PHLX) listed options later that year the regulator approved the Options Clearing Corporation (OCC), which would be owned by all three exchanges.

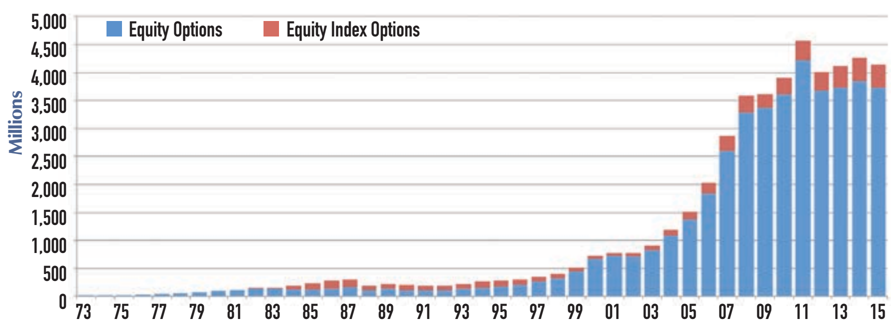
"SEC by sheer leverage forced the creation of the OCC to avoid having competing clearinghouses in options," Brodsky says. "That is why you can trade a Google on any exchange and close it out on another because OCC allows for that."

CBOE pit in CBOT building in 1979.

Photo courtesy of CBOE

A STORY OF GROWTH

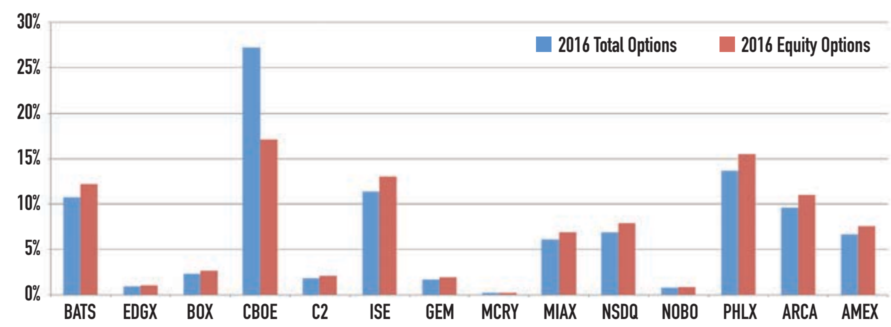
Total equity options volume since the launch of listed options.



Source: OCC

DIVIDING THE PIE

Market share for equity options is being split 14 ways. CBOE has much greater market share of total options, which includes their exclusively licensed products.



Source: OCC

The same year CBOE launched, another historic innovation occurred that facilitated enormous growth in options.

Fisher Black and Myron Scholes, along with Robert Merton, conceived a mathematical formula to calculate the price of an option in 1973. The Black Scholes Pricing Model made it easier for market makers to make markets facilitating greater liquidity.

Welcome to Chicago

Brodsky didn't come to CBOE from Amex but was brought to town by the Chicago Mercantile Exchange when they were expanding into index futures, and he served there as president and CEO.

"CME hired me for two reasons: One, they started trading stock index futures and didn't have a great understanding of the equity markets, and two, they were just given permission to trade options on futures and they didn't know anything about the options market. Those were the two things that I brought to the table," he says. "The traditional futures guys didn't know the difference between a put and a call, and neither did the stock guys at Amex. Stock traders were stock traders, futures traders were futures traders, options traders didn't exist."

CBOE was key in the development of options on futures because without it, there was precious little knowledge of them and previous efforts in trading options on commodities were a disaster.

"There wasn't a lot of expertise," Brodsky says. "The CBOE being in Chicago next to the CBOT and down the block from the Merc was fertile ground to get talent. Some of the brightest guys that came to the Merc when I was there were at the CBOE first."

The explosion of innovation during that period in Chicago tended to feed off of itself. The success of equity options helped to provide momentum for options on futures and the need to approve cash settlement to create index futures allowed for greater innovation in the equity options space.

CBOE launched an index of 100 stock options, the OEX 100, in November 1983. "When CBOE saw how successful S&P 500 futures were, they reached out to Standard & Poor's to allow them to cobrand it in exchange for being able to trade options on the S&P 500," Brodsky says.

The key to index options, as was the case for stock index futures, was cash settlement. "CBOE was the first options exchange in the world to trade cash settled products with the OEX 100," he says. "Options exchanges looked at cash settlement and the introduction of cash settled equity index futures and said, 'Oh my god, This is an even more efficient way of trading the stock market than trading IBM options, now you can trade the whole stock market.' They didn't want to lose the traditional options customer to the futures guys, CBOE [saw that] what the CME and The Kansas City Board of Trade (KCBT) were doing made a lot of sense, [and said] we better make an options product like that." (KCBT's Value line was the first equity index future).

Multiple listings

The next major hurdle for options was multiple listings on the various options exchanges. While there was no restriction, certain options traded on specific exchanges and when numerous exchanges listed the same stocks clearing became a problem due to price differences.

"It was a very imperfect process," Brodsky says. "When I came to CBOE in 1997, CBOE traded IBM, Pacific [Stock Exchange] traded Microsoft, PHLX traded Dell and Amex traded Intel. The government wanted us to go into Dell because Philly was handling it poorly but we knew if we listed Dell, Philly would go after IBM.

SPX pit in 2014.

Photo courtesy of CBOE

We didn't think that was worth the risk because we knew there would be retaliation. The government didn't like that and we ended up entering into a consent decree and multiple listing was the way things were done throughout."

The SEC required intermarket linkage in 1999—prior to such requirements for stocks—and a plan was instituted the following year.

While not the impetus for their creation, this made CBOE's move towards creating their own proprietary and licensed indexes more important as the exchange had exclusive rights to these indexes making them unique in the extremely competitive world of options exchanges.

It also set CBOE apart from competitors with a history of creating innovated new products. Brodsky attributes this to the creation of The Options Institute, which provides training and serves as an incubator of new ideas.

CBOE pioneered, listed options, equity index options, Long-term Equity AnticiPation Securities (LEAPS), weekly options and the CBOE Volatility Index (VIX) and related products, to name a few.

How many is too many?

At the turn of the century when exchanges were demutualizing, going public and consolidating, there was a consensus of opinion that there may be too many options exchanges and a need for consolidation in the space. While there has been some consolidation in a sense—the old Pacific Exchange and Amex both are part of NYSE, there has been expansion in terms of exchanges: BOX, Bats and Miami Options Exchange and existing players have added exchanges with different pricing conventions bring the total of exchange medallions to 14.

CBOE CEO Ed Tilly expects that to continue, but asks, "To what end and for what purpose? It is easy and fairly inexpensive from an exchange operator's perspective to get approval for a new medallion. We asked ourselves — staying at two — what benefit are we bringing to the marketplace with a third."

Tilly asks, "What benefit has the marketplace enjoyed with exchanges nine through 14 and we scratch our heads. There is not much differentiation between these platforms, I get the fee differences, there is maker take and traditional."

Tilly questions the value of additional exchanges and says it will raise the cost and further fragment liquidity.

He notes that the IEX approval could cause the number of option exchanges to go up. "I don't know how slowing down the marketplace would end up with better quotes from market makers… but if there is a benefit, an options exchange may follow suit."

Tilly says CBOE is more interested in "growing the pie than trying to take that sliver from one of the other 13 [exchanges]" and doesn't see the market get better from slowing down.

"It goes back to our algorithm, you don't get rewarded here, if you hop in front of a customer then the customer joins you a millisecond later, guess who gets filled first? The customer, so we don't have that issue of all the bad things around speed because our algorithm does not reward pure speed."

While Tilly says CBOE has no plans to offer a new exchange and that further fragmentation doesn't serve anyone's benefit; true to the innovative DNA of CBOE, he adds, "If we come up with an idea that hasn't been expressed, use the BOX [price improvement period] as an example, that's a completely different answer and I would expect us to apply for another Medallion."

"The business is bigger, better and stronger than it has ever been," Brodsky adds. "Look at the volume and quality of the markets. Look at how well we have educated traders. We constantly try and understand what customers are looking for." Δ

IS 14 ENOUGH?

List of option Medallion holders and parent

- **BATS Options Market**
- **EDGX Options Exchange**
- **BOX Options Exchange LLC**
- **Chicago Board Options Exchange, Incorporated**
- **C2 Options Exchange, Incorporated**
- **International Securities Exchange, LLC***
- **ISE Gemini, LLC**
- **ISE Mercury**
- **MIAX Options Exchange**
- **NASDAQ OMX BX, Inc.**
- **NASDAQ OMX PHLX, LLC**
- **NASDAQ Options Market**
- **NYSE Amex Options**
- **NYSE Arca Options**

Source: OCC