



NYSE EURONEXT

U.S. Options Brochure

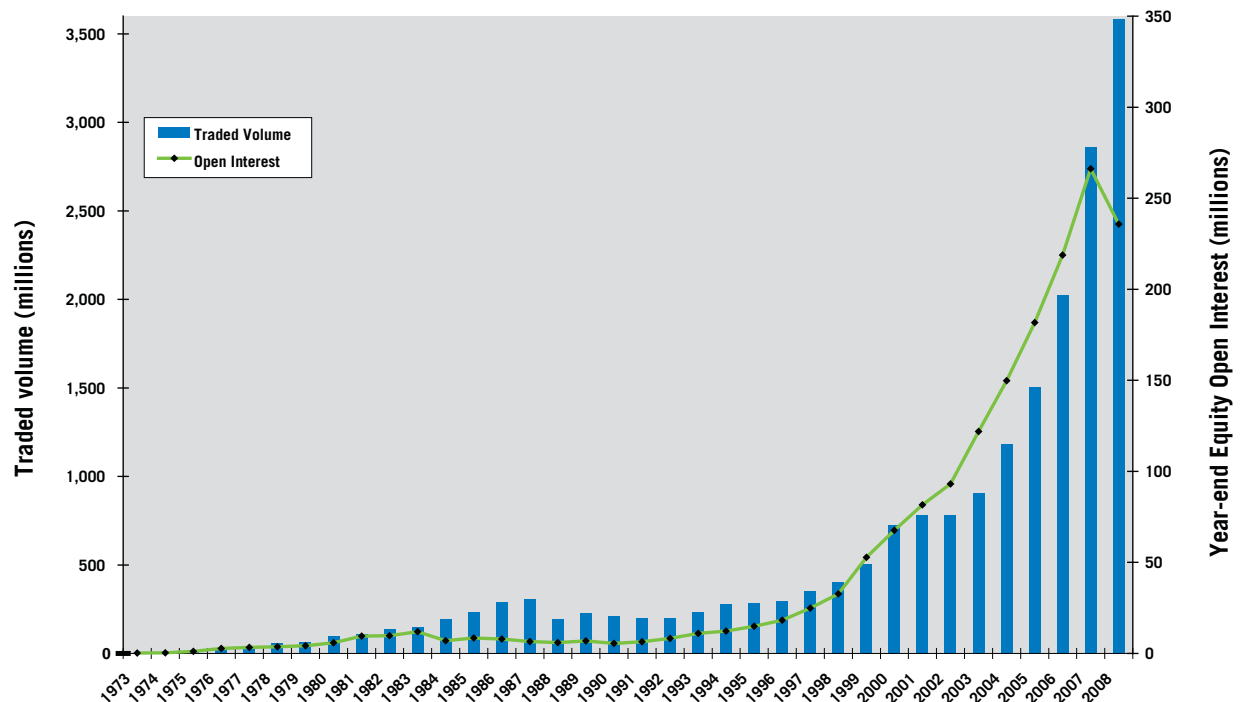
The U.S. Options Market

The U.S. Options market is one of the largest, most liquid and fastest growing derivatives markets in the world. It includes options on single stocks, indices and structured products such as Exchange Traded Funds (ETFs). The U.S. Options market therefore presents a tremendous opportunity for derivatives traders.

Key features include:

- Seven U.S. Options exchanges, all regulated by the U.S. Securities and Exchange Commission (SEC), all competing with each other for liquidity and order flow and all clearing in the same fungible open interest pool at a single, independent clearing house, the Options Clearing Corporation (OCC).
- Over 3.5 billion contracts traded on the exchanges in 2008.
- Over 14 million contracts traded on average per day in 2008, up over 24% from 2007.
- Over 3,300 listed equity and index based options.
- Penny Pilot Program: approved by the SEC in January 2007, this program, which currently includes 63 issues, allows minimum quoting increments as low as \$0.01 compared to all other issues outside the Penny Pilot which must be quoted in \$0.05 and \$0.10 increments.

US Options-traded Volume and Open Interest



Source: OCC

U.S. Equity Options

Traded Volume and Open Interest

With seven exchanges competing for liquidity and order flow, the U.S. Options market is one of the most competitive markets in the world – which helps to drive down exchange fees and tighten quoted prices.

This market represents a valuable opportunity for market participants, wherever they are based (subject to local regulatory restrictions), offering affordable and speedy access to the world's largest equity market, together with access to some of the most heavily traded and fastest growing derivatives contracts in the world.

The seven options exchanges:

- NYSE Arca offers a *price-time priority* trading model and operates a hybrid trading platform that combines a state of the art electronic trading system, together with a traditional open-outcry trading floor.
- NYSE Amex offers a *customer priority* trading model and operates a hybrid trading platform that combines an electronic trading system, supported by NYSE Arca technology, with a traditional open-outcry trading floor.
- The Boston Options Exchange (BOX) operates a fully electronic market.
- The Chicago Board of Options Exchange (CBOE), launched in 1973, operates a hybrid trading platform.
- The International Securities Exchange (ISE) operates a fully electronic exchange.
- NASDAQ OMX PHLX offers a traditional allocation model and operates a hybrid trading platform, with both an electronic system and open-outcry trading floor.
- NASDAQ OMX NASDAQ Options offers a price-time priority trading model and operates a fully electronic trading platform.

U.S. Market Structure



Market Model

The U.S. Options market is a fully horizontal model with one clearing organization – the Options Clearing Corporation (OCC). Many contracts are listed on multiple exchanges and all contracts trading on one exchange are fully fungible with contracts traded on any of the other exchanges, subject to licensing arrangements in the case of index options. This structure has been one of the key contributing factors to the growth in trading activity of U.S. Options and the proliferation of competition within the market.

Market Participation

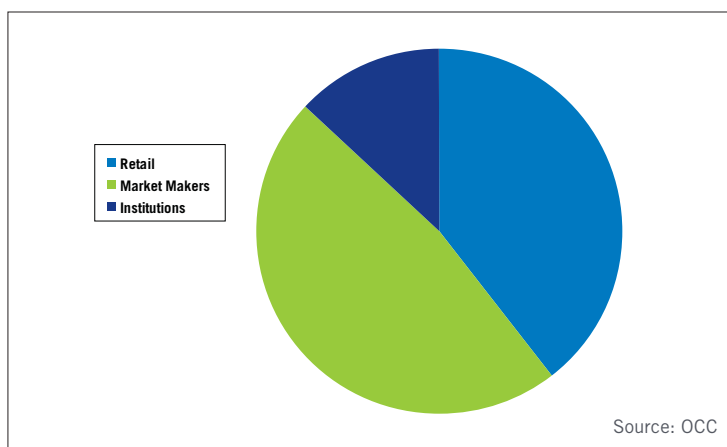
Retail Orientated

In 2008, approximately 40% of cleared, equity option volume is originated by retail customers; 47% by market makers; and 13% by institutions.

Source: OCC

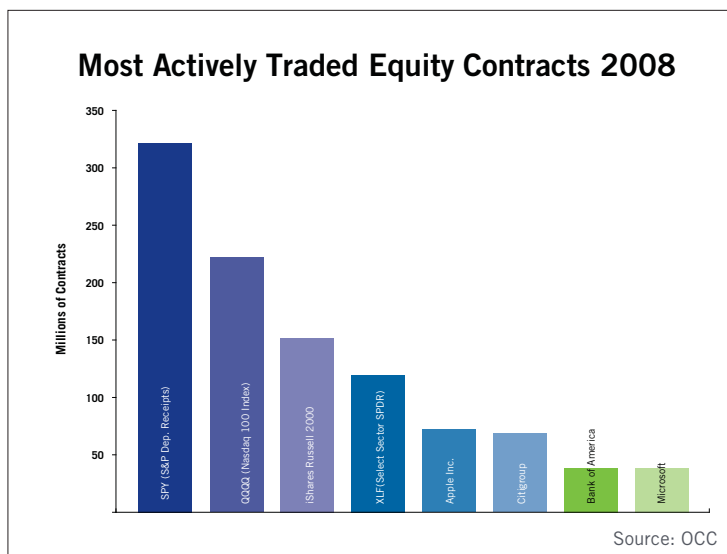
U.S. Options

Market Participant Split, 2008



Most Actively Traded Contracts

Trading activity within the U.S. Options market is commonly centered on certain key option issues. Two options classes alone account for 16.5% of industry equity option volume, and the top eight account for more than 31% of all equity traded options volume. The chart below details the most actively traded US equity options names. The four most heavily traded options classes during 2008 were based on indices or on ETFs intended to track performance of particular indices.



NYSE Euronext

NYSE Euronext operates two of the seven U.S. equity options exchanges, NYSE Arca and NYSE Amex. Together, NYSE Euronext operates the third-largest U.S. equity options marketplace as of December 31, 2008.

In 2005, Archipelago Holdings, Inc. (Archipelago) acquired the San Francisco based Pacific Exchange and began building a completely new electronic options platform based on Archipelago's highly successful equities trading platform. In 2006, the New York Stock Exchange LLC merged with Archipelago and the Exchange was re-branded as NYSE Arca.

In 2008, NYSE Euronext completed its acquisition of the American Stock Exchange (Amex). Since then, NYSE Amex options trading floor operations were relocated to a new state of the art trading floor located adjacent to the floor of the New York Stock Exchange and its electronic system was replaced with NYSE Arca technology.

NYSE Arca Options

NYSE Arca provides options traders with superior technology designed to deliver enhanced functionality, transparency and speed. NYSE Arca has developed systems and market structures designed to ensure that customers have the most effective means of trading on the U.S. options market and achieving best execution in their trading activities.

NYSE Arca offers technology and a market structure that provides customers the following benefits:

- Speed, reliability and transparency coupled with a price-time priority model.
- Immediate access to other options exchanges when NYSE Arca is not quoting at the national best price, via linkage and private routing.
- Simple, transparent fee structure, providing affordable entry and no hidden fees.
- A Maker / Taker pricing structure in Penny Pilot issues that rewards liquidity providers with rebates.

- Access to the market via APIs or FIX protocol, whichever suits customers best, with no restrictions on quote or order entry.
- A robust source of market data via ArcaBook, including Top of Book, Depth of Book, and pre-open auction information.
- No cancellation fees.
- Over 2,200 equity issues with over 200,000 option series available for trading.
- Two ways of trading: a fully automated state-of-the-art electronic trading system and an open-outcry trading floor in San Francisco.
- Co-location capabilities.

NYSE Arca Market Structure

NYSE Arca offers a *price-time priority* trading model and operates a hybrid trading platform that combines a state of the art electronic trading system together with a traditional open-outcry trading floor. NYSE Arca provides an anonymous, flat, and open market structure with equal access for all market participants and limited participation rights for LMMs (after all eligible customer orders are filed) in certain classes. As a result, pursuant to its price-time model, NYSE Arca offers opportunities to both market makers and non-market makers to trade rapidly on either side of the market and to take or post liquidity.

Market participants may trade in two ways:

- Electronically, through the all-electronic trading platform; or

- Open-outcry, at the NYSE Arca options trading floor in San Francisco, USA.

The trading floor in San Francisco provides a convenient venue for broker-negotiated trades, particularly for large retail & institutional trades and complex orders.

All products listed at NYSE Arca are available electronically. Outright (single-leg order types) are available and a limited number of products are also available to trade on the electronic options complex order book.

NYSE Arca blends price-time priority with the benefit of Lead Market Maker (LMM) participation designed to offer our customers competitive, liquid markets across all our listed option contracts.

Clients can enter both traditional and more sophisticated order types. Market makers can enter quotes and orders into the system.

For a full list of the issues available at NYSE Arca options, see http://www.nyse.com/futuresoptions/nysearcaoptions/EligibleOptions_Name.html

NYSE Arca Option Trading Permits

There is no need to buy “bins” or “seats” on the Exchange in order to make markets or access NYSE Arca. Market makers only need to acquire the relevant number of Option Trading Permits (“OTPs”) depending on how many issues in which they intend to make markets. OTPs cost \$4,000 each per month. Floor Broker OTPs cost \$1000 each per month. Visit our website for the most recent fee schedule: <http://www.nyse.com/arcaoptionsfees>.

Number of Issues	OTPs required
Up to 100	1
Up to 250	2
Up to 750	3
Over 750	4

LMM Participation Rights

- If an option is assigned to a Lead Market Maker, and that LMM is quoting at the NBBO, then the LMM is allocated 40% of the remainder of any incoming order after all customer orders that match the NBBO and are ahead of the LMM in time-priority are filled.
- If an option is not assigned to an LMM, it trades in strict price-time order.
- All inbound executable orders will:
- Check the NYSE Arca options Best Bid and Offer (BBO) against the NBBO
- Trade on NYSE Arca if it either establishes or matches the NBBO
- Route to an external exchange if there is a better price on another exchange
- All non-executable orders will be added to the NYSE Arca options order book.
- For a list of order types, see Appendix I.

Quotes

- Executable inbound quotes interacting with resting quotes or orders will immediately trade. Quotes will not be routed outbound.

NYSE Arca Complex Order Book

NYSE Arca options also provides the capability to execute certain strategy trades in the Complex Order Book. The Complex Order Book functions as follows:

- Upon receipt of a Complex Order, NYSE Arca will first check the electronic complex order book for an execution opportunity.
- If contra side orders are executable against either individual legs in the consolidated book or a resting complex order, an immediate execution will occur.
- Clients will be able to enter both “option only” multi-leg strategy trades as well as “option/equity” trades.

Opening Auction

NYSE Arca options opens each day through an Opening Auction. At 3:30 a.m. Eastern Time, the system begins accepting quotes and orders for inclusion in the opening auction process. Contingency Orders do not participate in the auction process. Any eligible open orders residing in the book from the previous trading session (GTCs) will be included in the Opening Auction.

For additional information concerning the opening auction process, please visit http://www.nyse.com/pdfs/NYSEArca_Options_User_Manual_Final.pdf.

Market Making on NYSE Arca

In order to ensure tight, liquid prices across all issues, NYSE Arca Options supports two different kinds of market makers and incentivizes firms to act as market makers. Options traders can choose to become Lead Market Makers (LMMs) or Market Makers (MMs). They can also choose the issues in which they want to make markets. NYSE Arca appoints one LMM per options class and may appoint an unlimited number of MMs per class. The number of issues a MM or LMM can trade is determined by the number of Options Trading Permits (OTPs) held.

Both types of market makers have access to the NYSE Arca Market Making API in order to meet their quoting obligations. Each type of market maker has specific obligations and rewards:

Lead Market Makers:

- Must provide continuous legal-width quotes 90% of the time the Exchange is open for trading in each appointed issue. Compliance is measured collectively across all appointed issues and is calculated on a monthly basis.
- Receive a guaranteed 40% participation right if at the NBBO, subject to prior customer order priority.
- Pay only \$0.09 (rather than the \$0.50 firm rate) per contract in non-Penny Pilot issues.
- Are rebated \$0.30 for posting liquidity (rather than the \$0.25 firm rate) per contract in Penny Pilot issues.

Control Risk

NYSE Arca offers functionality that allows market makers to quickly pull their quotes from the market. Market Makers can either utilize the “quote takedown” feature or the Market Maker Risk Limitation (MMRL). The “quote takedown” message can remove all quotes for one series, all series for an underlying symbol, or all quotes for a market maker’s session. The MMRL cancels all quotes posted by a market maker once a specific number of trades have occurred. MMRL is fully configurable and applies to trades against market maker quotes only; it does not apply to trades against market maker orders.

Market Maker Direct API

The NYSE Arca Market Maker Direct API allows users to make markets on the Exchange in assigned classes through quote messaging. For market makers that require mass quote functionality and market maker protections, the NYSE Arca Market Maker Direct API provides:

- Speed: 950 microseconds mean acknowledgement time.
- Throughput: Mass quotes up to 300 per packet; NYSE Amex Options can process over 1.5 million quotes per second and over 250,000 orders per second.
- Risk mitigation functionality.

The API provides receipt of execution reports against quotes and receipt of market-maker-only administrative messages. The API provides execution reports for all electronic trades and also supports delivery of drop copy duplicate execution reports to parties designated by market maker firms.

For further details on market making, please see the online Options Market Maker Orientation Manual at <http://www.nyse.com/arcaoptionsmm>.

Accessing the NYSE Arca Market

There are generally three ways of accessing NYSE Arca to trade options contracts:

- As an Options Trading Permit (OTP) firm.
- As a Sponsored Participant (SP).
- As a customer. A firm that is not eligible or does not wish to apply for OTP or SP status may trade NYSE Arca Options contracts via an existing OTP or SP that offers brokerage services, i.e. as a customer. A list of existing OTP firms and SPs can be found in the OTP Directory available on <http://www.nyse.com/futuresoptions/nysearcaoptions/OTPDirectory.html>.

NYSE Arca limits direct access to its trading platform to OTP firms and Sponsored Participants. The following illustrates the direct and indirect access routes:

Accessing the NYSE Arca Options Markets

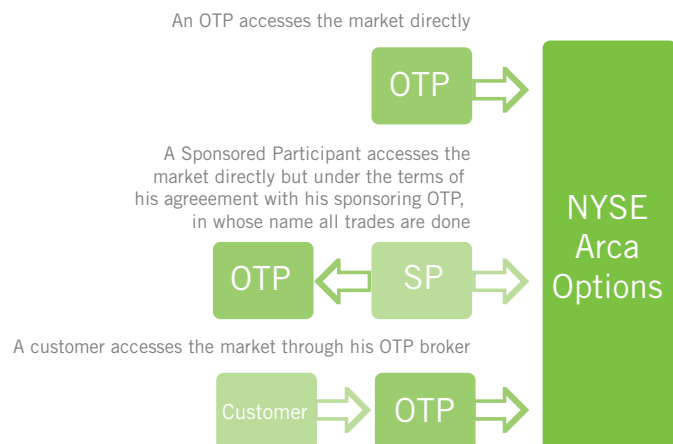
Three ways to obtain access to NYSE Arca Options market:

Direct Access

- As an Options Trading Permit (OT) holder
- As a Sponsored Participant (SP)

Indirect Access

- As a customer



Sponsored Participants Application Process

To become a Sponsored Participant, the firm must enter into a standard User agreement with the Exchange, which describes the sponsored relationship and identifies the Sponsoring OTP firm (Sponsoring OTP). The Sponsoring OTP assumes responsibility for the order flow routed by the SP. All trades are executed at Exchange level in the name of the Sponsoring OTP rather than in the name of the SP itself. NYSE Arca Options Quick Overview:

NYSE Arca Options Quick Overview:

Market Overview

- A hybrid trading platform offering speed, reliability and transparency
- Platform built on speed and low latency; system handles 1,500,000 quotes and 250,000 orders/second
- Price-time priority model offers level playing field amongst market participants
- Highly competitive fee structure; Maker/Taker fee structure in Penny Pilot issues
- Affordable access; No cancellation fees
- Simple membership process; no seats/bins
- No marketing fee in Penny Pilot issues
- Innovative order types and Complex strategies

NYSE Arca Fee Schedule:

ELECTRONIC EXECUTIONS IN PENNY PILOT ISSUES AND FOREIGN CURRENCY OPTIONS		
Execution Type	Post	Take
Customer	(\$0.25)	\$0.45
Broker Dealer & Firm	(\$0.25)	\$0.45
Market Maker	(\$0.30)	\$0.45

STANDARD EXECUTIONS	
Execution Type	Per Contract Rate
LMM	\$0.09
Market Maker	\$0.16
Broker dealer / firm (electronic)	\$0.50
Broker dealer / firm (manual)	\$0.26
Customer (electronic)	\$0.00
Customer (manual)	\$0.00
Firm facilitation (manual)	\$0.15

Fee schedule as of 3/2/2009. Please visit <http://www.nyse.com/arcaoptionsfees> for an updated fee schedule.

NYSE Amex Options

The new NYSE Amex options platform offers cutting edge technology built on NYSE Arca architecture. Newly enhanced broker booth and Floor Broker hand held technology along with robust application interfaces provide NYSE Amex participants with increased speed, transparency and reliability.

NYSE Amex Options Market Structure

The NYSE Amex options market is a hybrid market, featuring an electronic trading system as well as an open-outcry trading floor. Market participants may trade in two ways:

- Electronically through the all-electronic trading platform, and
- By open outcry at the new NYSE Amex options floor in the blue room at the NYSE.

The floor facility at NYSE Amex provides a venue for broker-negotiated trades, particularly for large institutional orders, firm facilitation orders and complex orders.

NYSE Amex blends customer priority and size pro-rata with the benefit of a Specialist to offer customers competitive, liquid markets across all our listed option contracts. Clients can enter both traditional and more sophisticated order types. Market Makers can enter quotes and orders into the system. For a full list of the issues available at NYSE Amex, see <http://www.nyse.com/futuresoptions/nyseamex/1218155409117.html>.

Key features of the NYSE Amex Options platform:

- Cutting edge technology provides speed, reliability and unlimited bandwidth for quoting.
- Simple membership application process; no bins or seats
- Customer priority model, coupled with size pro-rata trade allocations for non-customers
- A range of order types, including several unique types (see Appendix II)
- Directed order program

- Payment for order flow program
- Open outcry solicitation and facilitation
- Co-location capabilities

Many options traders and firms can choose to do more than simply send orders to NYSE Amex. All direct exchange participants are required to be Amex Trading Permit (ATP) Holders and all ATP Holders must apply and meet qualification standards prior to initiation of business with the exchange. Several classes of ATP Holder are supported by the Exchange and each class has different rights, obligations, and fee structures. The classes of ATP holder are Remote Market Maker, Floor Market Maker, Specialist, Floor Broker, and Order Sending ATP.

Trading

A Market Maker Authorized Trader (MMAT) is designated under a specific ATP as an individual authorized and responsible for trading under that permit. An MMAT is affiliated with a market maker streaming off floor quotes. MMATs are responsible for providing continuous legal width quotes on behalf of the market maker with whom they are associated, for 60% of the time the Exchange is open for trading. MMATs must be registered with the Exchange and pass the appropriate Market Maker exam.

A Floor Market Maker (FMM) also has certain requirements that must be met. The Market Maker community can choose the number of issues they want to trade, restricted only by the number of ATPs they activate. NYSE Amex appoints one Specialist per option class and an unlimited number of RMMs and FMMs in each class. FMMs are also required to provide continuous legal width quotes 60% of the time the Exchange is open for trading in issues included in their electronic appointment. FMMs must be registered with the Exchange and pass the appropriate Market Maker exam.

An Agency Floor Broker (AFB) is entitled to represent orders on the trading floor. The AFB is obligated to report all orders to the tape within the guidelines established by the exchange. AFBs must be registered with the Exchange and pass the appropriate Market Maker exam.

A Specialist is an assigned floor based market maker responsible for providing two-sided quotes on the exchange for a participation right.

Specialists receive a guaranteed participation right if quoting at the NBBO, subject to customer order priority. Specialists are also required to provide continuous legal width quotes 90% of the time the Exchange is open for trading. One Specialist may be identified for each underlying product.

Specialists and Market Makers are not required to quote all series nor are they required to quote on the Opening Auction, although they must meet their continuous two-sided quote obligation. These obligations apply to all appointed issues collectively, rather than on an issue-by-issue basis and compliance is determined on a monthly basis. At least 75% of the trading activity of a Specialist or Market Maker (measured in terms of contract volume per quarter) must be in issues within the market maker's primary appointment.

NYSE Amex Trading Permits (ATPs)

There is no need to buy bins or seats on the exchange to make markets. Market makers only need to acquire the relevant number of ATPs depending on how many issues they wish to make markets in. Market making ATPs cost \$1,000 each per month. Agency Floor Broker ATPs cost \$500 each per month. Visit our website for the most recent fee schedule: <http://www.nyse.com/futuresoptions/nyseamex/1236035961858.html>.

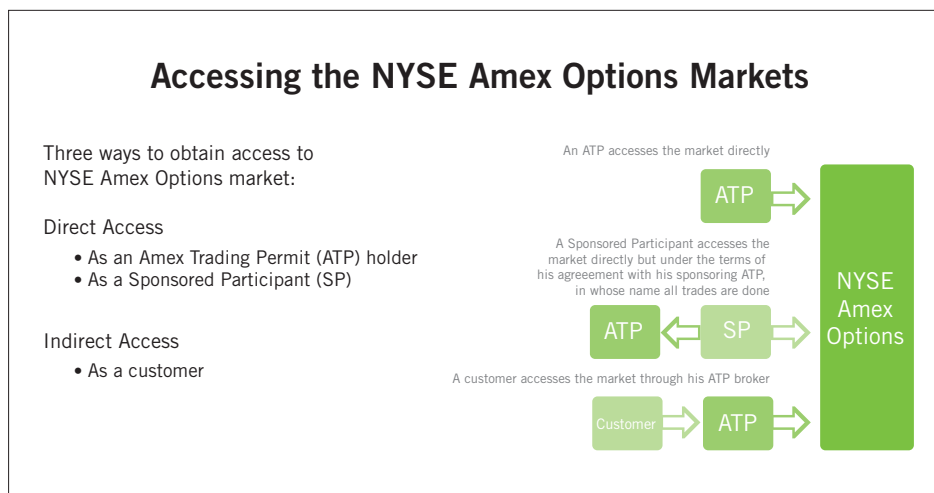
Number of Issues	ATPs required
Up to 100	1
Up to 250	2
Up to 750	3
Over 750	4

Accessing the NYSE Amex Options Market

There are generally three ways of accessing NYSE Amex to trade options contracts:

- i. As an Options Trading Permit (ATP) firm.
- ii. As a Sponsored Participant (SP).
- iii. As a customer. A firm that is not eligible or does not wish to apply for ATP or SP status may trade NYSE Amex contracts via an existing ATP or SP that offers brokerage services, i.e. as a customer. A list of existing ATP firms and of SPs can be found in the ATP Directory available at: <http://www.nyse.com/futuresoptions/nyseamex/1228420271656.html>.

NYSE Amex limits direct access to ATP firms and Sponsored Participants. The following illustrates the direct and indirect access routes:



Sponsored Participants Application Process

To become a Sponsored Participant, the firm must enter into a standard User agreement with the Exchange, which describes the sponsored relationship and identifies the Sponsoring ATP firm (Sponsoring ATP). The Sponsoring ATP assumes responsibility for the order flow routed by the SP. All trades are executed at the Exchange level in the name of the Sponsoring ATP rather than in the name of the SP itself.

Market Making

The NYSE Amex Market Maker Direct API allows users to make markets on the Exchange in assigned classes through quote messaging. For market makers that require mass quote functionality and market maker protections, the NYSE Amex Market Maker Direct API provides:

- Speed: 950 microseconds mean acknowledgement time.
- Throughput: Mass quotes up to 300 per packet; NYSE Amex Options can process over 1.5 million quotes per second and over 250,000 orders per second.
- Risk mitigation functionality.

The API provides receipt of execution reports against quotes and receipt of market-maker-only administrative messages. The API provides execution reports for all electronic trades and also supports drop copy duplicate execution reports to parties assigned by market maker firms.

Control Risk

NYSE Amex offers functionality that allows market makers to quickly pull their quotes from the market. Market Makers can either utilize the “quote takedown” feature or the Market Maker Risk Limitation (MMRL). The “quote takedown” message can remove all quotes for one series, all series for an underlying symbol, or all quotes for a Market Maker’s session. The MMRL cancels all quotes posted by a Market Maker once a specific number of trades have occurred. MMRL is fully configurable and applies to trades against market maker quotes only; it does not apply to trades against market maker orders.

How to become an Options Market Maker at NYSE Amex

Market Makers interested in obtaining NYSE Amex Options Membership must complete the customary application and agreements in order to trade on the NYSE Amex Options trading platform and become an Amex Trading Permit (ATP) Holder.

Market Makers applying to become the holder of an ATP must complete an Exchange prescribed application. To expedite the process, applications and forms may be faxed to Client Relationship Services at (312) 960-9647. Original documents must also be forwarded to the following address:

NYSE Arca, Inc.
c/o Client Relationship Services
220 Montgomery Street, 2nd Floor
San Francisco, CA 94104

Applicants must complete the ATP Application Form. Other forms listed may be completed based on the applicant’s organizational structure and intentions in trading on the facilities of the Exchange.

For further information please visit: <http://www.nyse.com/futuresoptions/nyseamex/1228420271656.html> or contact Client Relationship Services at crs@nyx.com or (888) 689-7739.

NYSE Amex Fee Schedule:

TRANSACTION FEE – TRADE RELATED CHARGES	
Execution Type	Per Contract Rate
Specialists	\$0.10
Market Maker – Non Directed	\$0.17
Market Maker – Directed	\$0.15
Broker dealer / firm – Electronic	\$0.50
Broker dealer / firm – Manual	\$0.26
Non-BD Customer – Electronic	\$0.00
Non-BD Customer – Manual	\$0.00
Firm Facilitation	\$0.15

Marketing Charge

\$0.65 per contract side on transactions in non Penny Pilot issues where market makers trade against electronic customer orders.

\$0.25 per contract side on transactions in Penny Pilot issues where market makers trade against electronic customer orders.

Fee schedule as of 3/2/2009.

Please visit: http://www.nyse.com/pdfs/NYSEAmex_Options_Fee_Schedule.pdf for an updated fee schedule.

NYSE Arca & NYSE Amex Options Automatic Linkage

The Securities and Exchange Commission has mandated that all customer orders must trade at the best available price for that particular option across any of the seven options exchanges – the National Best Bid and Offer (NBBO). This was developed to ensure that, following the multiple listing of options, customers would not be disadvantaged by trading on any one exchange.

To facilitate this, all seven options exchanges are linked together, on a real-time basis, through the Options Linkage Plan (“Linkage”) – a network capable of transporting messages and routing orders between the participating exchanges. If a particular exchange cannot match the NBBO for a customer order, then using linkage (or a similar system) that order must be routed to an exchange that does match it.

Unlike other exchanges, NYSE Arca and NYSE Amex also use a smart, proprietary routing algorithm to insure that all orders, whether customer, firm or market maker, are routed as quickly as possible to the market with the best price if it is not available. This is done automatically and immediately through a routing broker, to ensure that customers receive the best fill on whichever exchange it is available, at no extra cost to them.

NYSE ARCA AND NYSE AMEX THE BEST OF BOTH WORLDS			
	NYSE Arca	NYSE Amex	Both
Platform built on speed and low latency			✓
Price time priority	✓		
Fast change capability			✓
Layering capability			✓
No incoming/outgoing extraneous linkage fees	✓		
Innovative order types			✓
No cancellation fees	✓		
Low barrier to entry			✓
Superior quote performance			✓
Market Structure compliments penny pilot	✓		
Unrivaled speed, reliability, transparency			✓
Modified open outcry w/ modified solicitation/facilitation	✓		
Simplistic membership registration: no seats or bins			✓
Transparent fee structure			✓
No cancellation fees	✓		
No marketing fee in PP issues	✓		
Customer priority		✓	
Size Pro-rata		✓	
Payment for order flow		✓	
New technology built of NYSE Arca architecture		✓	
Traditional open outcry with facilitation/ solicitation		✓	
Directed orders accepted		✓	
Marketing fee assessed in all issues		✓	
Transaction based fees			✓
Enhanced hand held floor technology			✓
Selection of propriety products		✓	
Dedicated access to client relationship group			✓
Dedicated access to options trade desk support			✓
Co-location capabilities			✓

Contacts

If you would like to find out more about our platforms please contact your account manager or any of the following:

General queries:

NYSE Arca and NYSE Amex Options Trading Support:

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+1 888 689 7739 (option 1)

Client Relationship Services:

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