

## **Interactive Brokers Rule 606 Quarterly Order Routing Report Quarter Ending December 31, 2016**

### **I. Introduction**

Interactive Brokers (“IB”) has prepared this report pursuant to a U.S. Securities and Exchange Commission (“SEC”) rule requiring all brokerage firms to make publicly available quarterly reports describing their order routing practices. This report is intended to describe how and where customer orders are routed when customers use IB’s Smart Order Routing System rather than directing their order to a particular market center.

**1. IB’s Order Routing System:** IB does not sell its order flow to another broker to handle and route. Instead, IB has built a real-time, high-speed Best Execution Order Routing System (SmartRoutingSM), which is designed to optimize execution price, speed and total cost of execution for stocks and options. IB constantly changes and enhances the SmartRouting system to adapt to changes in markets, new exchanges, new trading rules, etc. IB’s SmartRouting system continually scans competing market centers and automatically seeks to route orders to the best market, taking into account factors such as quote size, quote price, exchange or ATS transaction fees or rebates and the availability of price improvement (execution at a better price than the National Best Bid or Offer (NBBO)). The IB SmartRouting system continually reevaluates market conditions and prices for pending IB customer orders and dynamically re-routes orders as necessary.

For some products, IB customers may directly route their orders to a particular market of their choice, although IB recommends that our customers use the IB SmartRouting system.

IB also operates an Alternative Trading System (ATS) in accordance with SEC Regulation ATS, on which it executes IB customer trades against each other or against one or more professional liquidity providers who send orders into the IB ATS. Order executions on IB’s ATS are faster, eliminate exchange fees and may offer price improvement compared to the NBBO. Statistical information regarding the quality of executions for orders effected through IB’s ATS (e.g., average execution speed, percentage of orders receiving price improvement, etc.) are available on the IB website at [www.interactivebrokers.com](http://www.interactivebrokers.com) or may be downloaded at:

[http://www.interactivebrokers.com/en/general/about/IBKR\\_ATS\\_605\\_Reports.php](http://www.interactivebrokers.com/en/general/about/IBKR_ATS_605_Reports.php)

**2. Compliance with Regulation NMS:** For U.S. stocks, IB’s SmartRouting system is designed to comply with Reg NMS and with our duty as a broker-dealer to provide best execution for customer orders. IB’s SmartRouting system connects to and receives market data feeds directly from most or all exchanges and public market centers. The IB SmartRouting system also has access to ATSs. Therefore IB can attempt to route an order directly to the most favorable overall market(s) taking into account relevant conditions. If an order is not executed immediately, IB’s system then monitors the open order and in most cases will cancel and reroute it if market conditions or prices change and another market center becomes more favorable for the order. If an order is too large to be executed at the best price at a single exchange or market center, IB’s SmartRouting system generally will split the order and send it to multiple destinations to attempt to get the fastest fill at the most favorable price.

**3. Intermarket Sweep Orders for U.S. National Market System Stocks:** Because IB’s system monitors the available markets and is designed to send orders to the markets posting the best price, orders routed to exchanges by the IB SmartRouting system generally will be marked as “Intermarket Sweep Order” (ISO), meaning that an exchange that receives such an order will be able to execute the order in reliance that the IB system did not identify any better prices for the order, or that other orders sent at or around the same time by IB have already taken out any better quotes on other exchanges or

market centers. IB has certain processes in place to monitor its connections to various exchanges and market centers, the quality of its market data feeds and the quality of its order executions. If an exchange system or the IB system is experiencing technical problems, or if IB is not connected to the market that is posting the best price, IB may route an order to an exchange without marking the order as ISO. This will allow the receiving market to re-route the order to a market offering a better price, if necessary.

**4. Orders Sent Near the Opening of Trading:** Please note that markets can be especially volatile near the opening of a trading session, with prices and available volume often changing rapidly and with data feeds from various markets potentially being slow or temporarily unavailable. IB cannot guarantee that orders sent near the opening of trading necessarily will receive the best posted price. You may want to consider the use of limit orders at the open, although market orders should be used if you want a higher certainty of getting a fill.

**5. Order Conversion and Designation:** Interactive Brokers may convert certain order types or apply conditions to certain IB customer orders in order to facilitate an execution. For example, IB may simulate certain order types using order designations. Simulated order types may be used in cases where an exchange does not offer an order type or in cases where IB has decided not to offer a certain order type offered “natively” by an exchange. In addition, orders may be sent with modifiers such as Immediate or Cancel, Fill-Or-Kill, All-Or-None, etc. in order to facilitate an immediate automatic execution, consistent with the objectives of the customer order. To protect customer orders from significant and rapidly changing prices, IB may simulate market orders on exchanges by establishing an execution cap at a percentage beyond the inside bid/ask. IB may also cap a buy limit order or set a floor for a sell limit order. While these caps are set at levels intended to balance the objectives of execution certainty and minimized price risk, there exists a remote possibility that an execution will be delayed or may not take place. In addition, IB is required by exchanges and regulators to maintain “filters” in its systems that prevent executions at prices that might be deemed to be disruptive to an orderly market (or exchanges may have such filters in their systems). These filters may cause an otherwise marketable order not to be executed or to be delayed in execution, even if the customer might want the order to be executed at a certain price immediately. In accordance with our regulatory obligations as a broker, IB may also cap the size of your order to a quantity in line with the normal volume in the product.

**6. Payment for Orders, Dark Pools, Liquidity Provider and Affiliate Relationships:** Interactive Brokers does not sell its order flow to another broker to handle and route. Through its SmartRouting system, IB evaluates each individual order and determines the best execution venue(s), from the perspective of the customer, where that order may be executed.

**A. Dark Pool and ATS Executions for Stock and ETF Orders:** IB maintains connections to “dark pool” ATS’s (including the IB ATS) that execute a portion of IB customer stock orders. IB customers benefit from IB’s access to dark pools, which provides a source of substantial additional liquidity. Dark pools charge no execution fees or lower execution fees than exchanges. Dark pools also provide fast executions and the possibility of executions at prices more favorable than the prevailing NBBO.

IB receives rebate payments for routing certain IB customer orders to dark pools. IB shares the benefit with IB customers as follows: Customers using the Fixed commission schedule pay no venue transaction fee and IB reduces the IB commission to \$.004 per share from \$.005 per share (a 20% commission savings) on orders routed to dark pools. Customers using the Tiered commission schedule pay no venue transaction fee and IB passes roughly 50% of the average rebates received from all dark pools/ATS’s and liquidity providers to customers for orders routed to any such venue.

**B. Liquidity Provider Relationships in the IB ATS:** IB has entered into arrangements with certain institutions under which such institutions may send orders to the IB ATS at or near the NBBO. These orders are held within the IB system and are not displayed in the national market. If an IB customer order could be immediately executed against such an order held in the IB system (at the NBBO or at a better price than the NBBO), the orders may be crossed and the execution reported to the National Market System. This arrangement provides extra potential liquidity (size) for IB customer orders and leads to faster executions (since the orders do not have to be routed out to an exchange), as well as providing the possibility of price improvement (since the orders may be executed at a better price than available on an exchange).

IB may receive payment in the form of commissions or commission equivalents from the liquidity providers for these executions in the IB ATS. IB shares the benefit with IB customers in the same manner as described above (Fixed commission customers receive a commission reduction to \$.004 per share from \$.005 per share and Tiered commission customers receive roughly 50% of any average payments received from all dark pools/ATS's and liquidity providers to customers for orders routed to the IB ATS).

**C. Routing of Certain Non-Marketable Stock and ETF Orders:** When IB receives a non-marketable customer order, it may route some portion of the order for display on a public market and may retain the remaining portion of the order on the IB ATS, where it may be matched against a conditional order of a liquidity provider that has committed to trade against the remaining portion of the customer order in the event that the portion of the customer order that was routed to a public market is executed. This arrangement provides potential additional liquidity for IB customer orders. In addition, IB will share with the customer a portion of the commission or commission equivalent that IB receives from the liquidity provider for these executions, reducing the total cost of execution to the customer.

**D. Options:** Interactive Brokers does not sell its option orders to another broker to handle and route. Rather, IB employs its SmartRouting system to try to achieve the best execution for customer option orders. The IB SmartRouting system attempts to achieve an execution price at the NBBO or better than the NBBO by utilizing relationships with affiliates and other liquidity providers, who may provide price improvement through the various auction and price improvement mechanisms offered under U.S. options exchange rules.

Interactive Brokers' affiliate Timber Hill LLC (Timber Hill) is a significant market maker on U.S. options exchanges. If Timber Hill is offering the best price in the national market or is willing to provide an execution of an option order at a better price than the NBBO for an IB customer order, IB generally will route the order to an options exchange where Timber Hill is more likely to trade with the order. This will benefit the customer – who receives an execution at NBBO or better – and will also benefit Timber Hill, which increases its market share in option contracts, from which it attempts to earn a market making spread.

In cases in which the customer is eligible for a rebate for an order under IB's Tiered commission schedule, if routing to an exchange where Timber Hill is active would reduce the rebate to be paid to the customer (or increase a fee paid by the customer) compared to a different exchange, IB generally will adjust the rebate paid to the customer (or the fee paid by the customer) to match the higher rebate (or lower fee), although IB does not guarantee this. As a specialist on various options exchanges, Timber Hill may be responsible for allocating payments for orders that are generated in its assigned option classes, depending on the design of the applicable exchange's SEC-approved payment plan. Consistent with these plans, Timber Hill pays such funds to Interactive Brokers.

IB also maintains relationships with other liquidity providers who may provide executions at the NBBO or a better price than the NBBO for IB customer option orders. These relationships benefit IB customers, who may receive price improvement for their option orders. IB may receive payment in the form of commissions or other payments from the liquidity providers for these executions.

Several options exchanges impose “maker-taker” fees and rebates, in which exchange members are charged for orders that take liquidity (i.e., marketable orders that trade against a posted quote or limit order) and receive a rebate for orders that add liquidity to the exchange (i.e., non-marketable limit orders that are posted and then trade against incoming marketable orders), or vice versa. The charges imposed or rebates offered by these exchanges affect the total cost of execution, and IB’s SmartRouting System takes this into account in determining where to route option orders – trying to minimize the costs that customers incur while providing the best price. In addition, if multiple exchanges are quoting at the NBBO for an option order and IB has discretion as to where to send the order or a portion of it, IB generally will “break the tie” by sending the order to an exchange where it will receive the most payment for the order.

Under certain circumstances, IB may route a marketable option order to an exchange that is not currently posting the NBBO but which may be willing to execute the order at the NBBO. Generally, IB will do this in order to avoid or reduce the fee for executing the order, compared to routing to a different exchange. IB generally will share the economic benefit of routing orders in this manner with customers in the form of reduced execution fees, although IB does not guarantee that it will share such benefit. In addition, in the limited circumstances in which IB routes orders in this manner, IB generally guarantees a fill at the NBBO at the time the order was routed.

**7. Affiliate Investments in Exchanges:** An affiliate or affiliates of Interactive Brokers LLC own(s) minority interests in OneChicago (security futures exchange), International Securities Exchange, Inc., and a substantial, minority investment in the Boston Options Exchange Group LLC, which operates the Boston Options Exchange.

## **II. Order Routing Information for Particular Types of Securities**

This section provides statistical and other information about orders that are sent through IB’s SmartRouting systems for the following types of securities: New York Stock Exchange (“NYSE”) listed stocks; Nasdaq stocks; Stocks listed on NYSE MKT (formerly “NYSE Amex”) or regional exchanges; and exchange-listed options. For each of these types of securities, this section identifies the market centers most often selected by IB’s SmartRouting systems and the percentage of various types of orders sent to those market centers.\* This section also addresses material relationships of IB and its affiliates to each market center to which IB routes orders.

### **A. NYSE Stocks**

#### Summary Statistics:

Percentage of total orders that were non-directed (i.e., sent using IB SmartRouting).....	98.8%
Percentage of total non-directed orders that were market orders....	2.7%
Percentage of total non-directed orders that were limit orders.....	88.3%
Percentage of total non-directed orders that were other orders.....	9.0%

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\* IB calculates separate percentages of non-directed orders routed to retail liquidity program platforms of an exchange. In Q4 2016, IB routed the following percentage of orders to NYSE Retail Liquidity Program: Percentage of total non-directed orders 0.4%; Percentage of non-directed market orders 3.3%; Percentage of non-directed limit orders 0.3%; Percentage of non-directed other orders 0.4%. In Q4 2016, IB routed the following percentage of orders to Nasdaq Retail Liquidity Program: Percentage of total non-directed orders 0.4%; Percentage of non-directed market orders 1.4%; Percentage of non-directed limit orders 0.3%; Percentage of non-directed other orders 0.2%.

## Market Centers Receiving Significant Percentage of Non-Directed Orders

1.	NYSE:	Percentage of total non-directed orders.....	83.0%
		Percentage of non-directed market orders....	31.7%
		Percentage of non-directed limit orders.....	83.9%
		Percentage of non-directed other orders.....	89.3%
2.	NASDAQ:	Percentage of total non-directed orders.....	5.2%
		Percentage of non-directed market orders....	4.1%
		Percentage of non-directed limit orders.....	5.5%
		Percentage of non-directed other orders.....	2.2%
3.	NYSE ARCA:	Percentage of total non-directed orders.....	4.6%
		Percentage of non-directed market orders....	1.6%
		Percentage of non-directed limit orders.....	5.1%
		Percentage of non-directed other orders.....	1.0%
4.	IB ATS:	Percentage of total non-directed orders.....	2.3%
		Percentage of non-directed market orders....	23.8%
		Percentage of non-directed limit orders.....	1.6%
		Percentage of non-directed other orders.....	2.7%

## Material Aspects of IB Relationship with Execution Venues for NYSE Stocks

As described more fully above, Interactive Brokers receives payments from certain market centers for marketable orders in NYSE stocks. In addition, IB receives payments for certain orders in the form of ECN liquidity rebates and commissions/fees paid to IB by liquidity providers that send *not held* orders to IB. IB operates an alternative trading system (ATS) in accordance with the requirements under Regulation ATS, where it executes trades internally on its own platform (not on an exchange or other market) among multiple customers and liquidity providers. An affiliate of Interactive Brokers LLC (IB Exchange Corp.) owns minority interests in the International Securities Exchange, Inc.

### **B. Nasdaq Stocks**

#### Summary Statistics:

Percentage of total orders that were non-directed (i.e., sent using IB SmartRouting).....	97.3%
Percentage of total non-directed orders that were market orders....	7.1%
Percentage of total non-directed orders that were limit orders.....	74.3%
Percentage of total non-directed orders that were other orders.....	18.6%

## Market Centers Receiving Significant Percentage of Non-Directed Orders

1.	NYSE ARCA:		
		Percentage of total non-directed orders.....	43.4%
		Percentage of non-directed market orders.....	8.1%
		Percentage of non-directed limit orders.....	54.1%
		Percentage of non-directed other orders.....	14.4%
2.	NASDAQ:		
		Percentage of total non-directed orders.....	38.8%
		Percentage of non-directed market orders.....	21.6%
		Percentage of non-directed limit orders.....	31.3%
		Percentage of non-directed other orders.....	74.9%
3.	IB ATS:		
		Percentage of total non-directed orders.....	6.1%
		Percentage of non-directed market orders.....	26.5%
		Percentage of non-directed limit orders.....	4.8%
		Percentage of non-directed other orders.....	3.6%
4.	BATS Y EXCHANGE:		
		Percentage of total non-directed orders.....	2.2%
		Percentage of non-directed market orders.....	9.1%
		Percentage of non-directed limit orders.....	1.9%
		Percentage of non-directed other orders.....	1.0%
5.	BATS DIRECT EDGE:		
		Percentage of total non-directed orders.....	2.0%
		Percentage of non-directed market orders.....	6.5%
		Percentage of non-directed limit orders.....	1.8%
		Percentage of non-directed other orders.....	1.3%

## Material Aspects of IB Relationship with Execution Venues for Nasdaq Stocks

As described more fully above, Interactive Brokers receives payments from certain market centers for marketable orders in Nasdaq stocks. In addition, IB receives payments for certain orders in the form of ECN liquidity rebates and commissions/fees paid to IB by liquidity providers that send not held orders to IB. IB operates an alternative trading system (ATS) in accordance with the requirements under Regulation ATS, where it executes trades internally on its own platform (not on an exchange or other market) among multiple customers and liquidity providers. An affiliate of Interactive Brokers LLC (IB Exchange Corp.) owns minority interests in the International Securities Exchange, Inc.

### **C. NYSE MKT and Regional Exchange-Listed Stocks**

#### Summary Statistics:

Percentage of total orders that were non-directed (i.e., sent using IB SmartRouting).....	98.0%
Percentage of total non-directed orders that were market orders....	4.9%
Percentage of total non-directed orders that were limit orders.....	81.9%
Percentage of total non-directed orders that were other orders.....	13.2%

## Market Centers Receiving Significant Percentage of Non-Directed Orders

1.	NYSE ARCA:	Percentage of total non-directed orders.....	68.5%
		Percentage of non-directed market orders.....	10.9%
		Percentage of non-directed limit orders.....	70.8%
		Percentage of non-directed other orders.....	76.0%
2.	NYSE MKT:	Percentage of total non-directed orders.....	8.1%
		Percentage of non-directed market orders.....	1.4%
		Percentage of non-directed limit orders.....	8.4%
		Percentage of non-directed other orders.....	8.6%
3.	NASDAQ:	Percentage of total non-directed orders.....	7.7%
		Percentage of non-directed market orders.....	4.1%
		Percentage of non-directed limit orders.....	8.7%
		Percentage of non-directed other orders.....	2.8%
4.	IB ATS:	Percentage of total non-directed orders.....	3.1%
		Percentage of non-directed market orders.....	20.4%
		Percentage of non-directed limit orders.....	2.1%
		Percentage of non-directed other orders.....	2.4%
5.	BATS Y EXCHANGE:	Percentage of total non-directed orders.....	2.4%
		Percentage of non-directed market orders.....	15.9%
		Percentage of non-directed limit orders.....	1.8%
		Percentage of non-directed other orders.....	1.7%
6.	BATS DIRECT EDGE:	Percentage of total non-directed orders.....	2.2%
		Percentage of non-directed market orders.....	8.0%
		Percentage of non-directed limit orders.....	2.0%
		Percentage of non-directed other orders.....	1.3%

## Material Aspects of IB Relationship with Execution Venues for NYSE MKT and Other Regional Exchange-Listed Stocks

As described more fully above, Interactive Brokers receives payments from certain market centers for marketable orders in NYSE MKT (formerly NYSE Amex) stocks. In addition, IB receives payments for certain orders in the form of ECN liquidity rebates and commissions/fees paid to IB by liquidity providers that send *not held* orders to IB. IB operates an alternative trading system (ATS) in accordance with the requirements under Regulation ATS, where it executes trades internally on its own platform (not on an exchange or other market) among multiple customers and liquidity providers. An affiliate of Interactive Brokers LLC (IB Exchange Corp.) owns minority interests in the International Securities Exchange, Inc.

## D. Exchange-Listed Options

### Summary Statistics:

Percentage of total orders that were non-directed (i.e., sent using IB SmartRouting).....	99.5%
Percentage of total non-directed orders that were market orders....	2.5%
Percentage of total non-directed orders that were limit orders.....	95.6%
Percentage of total non-directed orders that were other orders.....	1.9%

### Market Centers Receiving Significant Percentage of Non-Directed Orders

1.	THE NASDAQ OPTIONS MARKET (“NOM”):	
	Percentage of total non-directed orders.....	27.6%
	Percentage of non-directed market orders....	1.9%
	Percentage of non-directed limit orders.....	28.3%
	Percentage of non-directed other orders.....	25.1%
2.	NYSE ARCA OPTIONS:	
	Percentage of total non-directed orders.....	19.2%
	Percentage of non-directed market orders....	3.9%
	Percentage of non-directed limit orders.....	19.7%
	Percentage of non-directed other orders.....	10.2%
3.	ISE GEMINI EXCHANGE:	
	Percentage of total non-directed orders.....	12.7%
	Percentage of non-directed market orders....	1.9%
	Percentage of non-directed limit orders.....	13.0%
	Percentage of non-directed other orders.....	12.1%
4.	BOSTON OPTIONS EXCHANGE (“BOX”):	
	Percentage of total non-directed orders.....	11.7%
	Percentage of non-directed market orders....	52.9%
	Percentage of non-directed limit orders.....	10.4%
	Percentage of non-directed other orders.....	22.4%
5.	CHICAGO BOARD OPTIONS EXCHANGE (“CBOE”):	
	Percentage of total non-directed orders.....	7.1%
	Percentage of non-directed market orders....	12.6%
	Percentage of non-directed limit orders.....	6.9%
	Percentage of non-directed other orders.....	6.8%
6.	NYSE AMEX OPTIONS	
	Percentage of total non-directed orders.....	6.0%
	Percentage of non-directed market orders....	2.6%
	Percentage of non-directed limit orders.....	6.1%
	Percentage of non-directed other orders.....	4.9%
7.	BATS Z EXCHANGE:	
	Percentage of total non-directed orders.....	5.9%
	Percentage of non-directed market orders....	4.1%
	Percentage of non-directed limit orders.....	6.0%
	Percentage of non-directed other orders.....	6.1%



## Material Aspects of IB Relationship with Listed Option Market Centers

**Equity Investment in Boston Options Exchange Group LLC:** An affiliate under common control with IB has a substantial, minority investment in the Boston Options Exchange Group LLC, which operates the Boston Options Exchange.

**Payment for Orders:** IB receives payments for certain orders in varying amounts from U.S. options exchanges, specialists and/or market makers pursuant to the mandatory marketing fee programs that have been adopted by the exchanges and approved by the SEC. If multiple exchanges are quoting at the NBBO for an option order and IB has discretion as to where to send the order or a portion of it, IB generally will “break the tie” by sending the order to an exchange where it will receive the most payment for the order, or to an exchange designated by a firm from whom IB will receive the most payment at that market.

Several options exchanges, including BOX and NYSE ARCA, have adopted a “maker-taker” market structure, in which exchange members are charged for orders that take liquidity from the exchange (*i.e.*, marketable orders that trade against a posted quote or limit order) and receive a rebate for orders that provide liquidity to the exchange (*i.e.*, non-marketable limit orders that are posted and then trade against incoming marketable orders) or vice-versa. The charges imposed or rebates offered by these exchanges affect the total cost of execution and IB’s SmartRouting System may take this into account in determining where and how to route option orders. For example, for certain types of orders, when certain exchanges are posting the best price, IB may route to a certain exchange and rely on the option intermarket linkage to get an execution at the NBBO at the lowest total execution cost (but only for those orders that have a high likelihood of being filled at the NBBO after linkage).

**Affiliate Relationships:** As specialist on various options exchanges, IB’s affiliate Timber Hill LLC may be responsible for allocating payments for orders that are generated in its assigned option classes, depending on the design of the applicable exchange’s SEC-approved payment plan. As much as consistent with these plans, Timber Hill pays such funds to Interactive Brokers.

### **III. Order Routing Information for Particular Orders**

In addition to the basic quarterly reports, under Rule 606 of SEC Regulation NMS, a broker-dealer is required upon customer request to provide information regarding the identity of the market center to which the customer’s orders were routed for execution in the six months prior to the request, whether the order was a directed or non-directed order, and the time of the transaction, if any, that resulted from such order. Please contact the IB Customer Service Desk in writing through the IB website at [interactivebrokers.com](http://interactivebrokers.com) if you wish to receive the foregoing routing information for any order(s) that you submitted within the past six months. Please type “Request for Order Routing Information” in the subject line of your request and please include your name, user id and account number as well as the date of the order(s), the security, the quantity, and any other information necessary to identify the order(s) (e.g., the time of day if there were several similar orders that day).