



# FXCM Quality of Execution Study FAQ

## TABLE OF CONTENTS

<b>Market Dynamics and Why FXCM's Pricing is Better</b>	2-15
<b>Study Methodology &amp; Data Questions</b>	15-20
<b>Futures Related Questions</b>	21-26
<b>FXCM Account/Execution Specific Questions</b>	26-28
<b>References</b>	29
<b>Additional Reading and Resources</b>	30
<b>Disclaimer</b>	30-31

# Market Dynamics and Why FXCM's Pricing is Better

## 1. How is FXCM (Forex Capital Markets, LLC) able to offer a better price at which the client's order is executed versus the quoted price on the Futures or Institutional market?

FXCM's liquidity providers provide better pricing<sup>1</sup> to our Retail Clients<sup>2</sup> because our liquidity providers (also known as market makers) are only allowed to be price makers on our Retail Client stream, and only a Retail Client can take a price from the liquidity provider. Liquidity provider A is not able to take a price from liquidity provider B through FXCM. This gives our liquidity providers the ability to make a market based on quality of price and liquidity rather than speed to protect against being picked off<sup>3</sup> by predatory trading<sup>4</sup> from other liquidity providers.

FXCM's liquidity providers can make more money with a lower risk of being picked off, while at the same time giving better pricing<sup>5</sup> to our Retail Clients. It's important to understand the mechanics of how trading styles at the institutional level and retail level differ and how this differentiation allows our liquidity providers to offer more favorable pricing conditions for FXCM clients.

- *Detailed explanation on how FXCM's trading environment allows our liquidity providers to provide better execution prices on our retail platform:*

Trading at the institutional level has become a game of speed in which the lifespan of a trade is often measured in milliseconds. Some top market participants are looking to flip positions in less than a second and their main concern is to be profitable in a trade whose typical lifespan is measured in milliseconds. The fastest high frequency traders (HFTs) at the institutional level may be in and out of trades in mere microseconds. Fast banks may trade in speeds of 10's of milliseconds to a few 100 milliseconds. And slower banks may take as long as 200-300 milliseconds (if that can be considered slow).

In order to make trading decisions and place orders at these incredible speeds, some institutions spend millions of dollars on high tech trading equipment and services to be the fastest liquidity provider possible, to stay a step ahead of other liquidity providers trying to stay one step ahead of them. There is a speed race making the institutional environment highly competitive and predatory on slower participants. Billions of dollars are at stake, and the slower gazelles are prey for the cheetahs. Being

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<sup>1</sup> Source for lower pricing – FXCM Study of execution for FXCM clients' orders versus the Futures market and the Interbank market for FX, December 2015 ("FXCM Study of execution for FXCM clients' orders 2015"). 17,855,552 orders included in the study. Comparison does not include fixed costs, commission, or markup.

<sup>2</sup> FXCM's Retail Clients are defined as individual, joint, and corporate accounts trading on our retail price stream

<sup>3</sup> Liquidity providers are looking to buy low and sell high, or sell high and buy low. Picked off means that the liquidity providers trade ended up at a loss either because the participant on the other side of the trade had more market data or was faster in being able to predict the next tick and got a better price resulting in a loss to the liquidity provider.

<sup>4</sup> Predatory trading does not refer to any illegal activity. It indicates order flow that is not appealing or profitable to liquidity providers.

<sup>5</sup> FXCM Study of execution for FXCM clients' orders 2015. Comparison does not include fixed costs, commission, or markup.

fast at market making is not enough. You must be faster than your competitors. In this billion dollar race, the typical trade would include (but is not limited to) the following 3 steps.

**STEP 1: Receiving Information:** Institutional traders need to receive information, often called market data, as quickly as possible. The faster the market data is received, the faster their trading algorithm can identify profitable trading opportunities. Most execution venues sell faster access to market data, giving an edge to HFTs who pay up. The revenue generated from selling faster access to data has become a multi-million dollar business for execution venues. Additionally, the HFT may pay large sums to co-locate their server directly next to exchange servers to receive the information as quickly as possible and minimize latency. And while co-location services are technically available to all traders, the cost of an institutional grade set up means that only the well capitalized can afford it. Every microsecond (one thousandth of a millisecond) counts and institutions will spend large sums to gain any advantage in the need for speed. Nanex Research from 2013 gives an estimated cost of direct data feed fees to an exchange:

*A direct feed to just one exchange can cost over \$10,000 a month - in exchange fees alone. You need a direct feed from each (there are 14 lit markets, and dozens of dark pools), plus at least one good network engineer on staff, plus \$10's of thousands in equipment. Add in another \$10,000 or more in monthly telco fees. [1]*

As an additional example, publicly available pricing data from Quincy Data lists FX futures market data pricing at upwards of \$23,000 depending on the data center destinations. [2]

**STEP 2: Making a Trading Decision:** As the market data is received, the institutions trading algorithm, located on the server and in many cases co-located in very close proximity to the exchange, then has one decision to make: is the next tick up or down. To make the trading decision as quickly as possible, even the hardware computing the algorithm can be customized to reduce latency processing the market data. HFTs can go so far as to burn their algorithm directly onto FPGA chips to process market data as quickly as possible during market events, eliminating latency that may be caused by an algorithm based off of software run by an operating system. The top HFTs go to great lengths to shave off mere micro seconds in order to make trading decisions as quickly as possible.

**STEP 3: Transmitting the Order for Execution:** Once all of the market data is processed through the trading algorithm and the trading opportunity is identified in step 2, it is then a race back to the exchange to capture the trading opportunity before other HFTs. The order is submitted to exchange, in many cases via the co-located server, ultra-low latency microwave transmission or the latest technology to beat other institutions trying to predict the next tick. The top players in the market will pay for the fastest submission route possible. Whoever wins the speed race is better positioned to win the trading opportunity.

In the time it takes to blink an eye (on average 100-300 milliseconds), an HFT may have been in and out of the market, completing the 3 steps above, countless times. In a trading venue filled with these super-fast traders, the slowest person loses the race to be the first to trade. Therefore, a safer route for

institutional liquidity providers to take is to quote smaller sizes at wider prices to minimize margin of error of being picked off. Mistakes are very costly. If your algorithm is wrong, it's better to be wrong at a smaller amount and wider price. The risks involved makes market making a fishing expedition based on speed where quality pricing and liquidity could be punished. The competition in the highly sophisticated institutional market is too great to provide the best pricing possible along with deep liquidity if the institution is exposed to the risk of being picked off by other fast and sophisticated market participants.

If the fastest HFTs in the institutional market are placing trades in microseconds, how does a client placing an order from their personal computer fare? Think about the same 3 step trading process such a trader may go through (but not limited to) and the amount of time each step in the process takes:

**STEP 1. Receiving Information:** Retail Clients are more likely to be using internet speeds offered by cable or phone providers that pale in comparison to microwave towers, dedicated fiber optic cables, and co-located servers used by institutional traders. Not to mention any latency as a result of geographic location from the trading servers. Additionally, the data being received for news announcements is more likely to be coming from financial news channels or websites that the trader may be manually refreshing.

**Step 2. Making a Trading Decision:** Once the information is received, the trader then goes through his or her trading plan steps whether it be analyzing the chart, reading through data analysis, parsing information from everyone's favorite financial news program, etc. All of this is taking place in the trader's head in order to decide whether to buy or sell. Decision making that entails going back and forth, emotions, doubts, and all. We assume there are no additional common distractions disturbing the traders focus such as the doorbell ringing, loss of wireless connection, or the cat jumping on the keyboard...things that don't interrupt a dedicated trading algorithm. Even if the trader knows the exact trading setup to trade, the trader still has to recognize the market data signaling the trade, transmit that confirmation from the trader's brain ordering the hand to move to the mouse, and finally click on the order button. This process is going to take at least a second even assuming the trader has set the platform to one-click trading for the fastest order submission possible.

**Step 3. Submitting the Order for Execution:** Once the decision is made to buy or sell, the trader then has to submit the order for execution. The order is transmitted back through an ordinary internet connection, to the broker, and finally to the exchange.

The Retail Client takes a figurative eternity to perform a trade the institutional liquidity provider can complete in microseconds. The lifespan of a retail trade from open to close is then measured in seconds, minutes, or perhaps longer.

As you can see, the profile of participants trading behavior at the institutional level is significantly different than the profile of participants at the retail level and therein lies the key to creating the trading environment for our liquidity providers to give better pricing<sup>6</sup> to Retail Clients.

**On FXCM's platform, the liquidity providers do not have to constantly watch their back, worrying about predatory high frequency trading because the liquidity providers are only allowed to be price makers for our Retail Clients.** They know that liquidity provider A (who may be a predatory liquidity provider on the futures or institutional market) is not allowed to cross over and take a price from liquidity provider B. Each liquidity provider is only allowed to take orders from Retail Clients. This creates a trading environment for liquidity providers to offer tighter pricing without fear of being picked off by another liquidity provider's high speed trading algorithm. Our trading environment<sup>7</sup> rewards liquidity providers for competing on quality pricing and liquidity which in turn benefits the trader, rather than making a market based on speed out of protection from other market making predators.

To their credit, institutional venues such as CME, Reuters, EBS, etc. provide a valuable and necessary service in the FX industry and are excellent trading venues, but they are best suited for institutional participants where they can compete against each other. If the same trading behavior allowed on institutional venues was allowed on our retail platform, it would negate the trading environment<sup>8</sup> which allows our liquidity providers, who are largely the same participants in the institutional market, to price more competitively.

## 2. Does better pricing mean less risk?

No. Forex trading carries a high level of risk. The price at which an order is executed does not negate the high level of risk involved with trading.

## 3. Does better pricing equal profitability?

No. The cost savings as a result of better pricing does not equal profitability since the overall trade could result in a loss regardless of pricing quality of the entry/exit price.

## 4. Does this study indicate that FXCM maintains a particular capacity or performance level of capacity?

No. The study does not in any way attempt to represent that FXCM maintains a particular capacity or performance level. Past results are not indicative of future performance.

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<sup>6</sup> FXCM Study of execution for FXCM clients' orders 2015. Comparison does not include fixed costs, commission, or markup.

<sup>7</sup> Please see Question 1 for detailed explanation on why FXCM's liquidity providers are able to give better execution pricing

<sup>8</sup> Ibid.

**5. Does this study indicate FXCM's trading venue is better than the CME, EBS, or Reuters?**

FXCM is not implying in any way shape or form that it can use its platform to service HFTs and banks as liquidity providers. The CME, EBS, and Reuters are world leaders in the FX industry and provide a critical trading venue for sophisticated institutions. We compared our pricing against these three venues because they are considered the standard in the FX market. They provide no last look execution to participants, transparent market data, and firm pricing which is used as a benchmark for FX market participants.

The CME, EBS, and Reuters are comprised of hundreds of institutions providing deep anonymous pools of liquidity. Our liquidity providers require this to trade otherwise they would not be able to make markets for FXCM's Retail Clients or their own clients.

The transparency of pricing and market data on the CME sets a standard for global trading which many FX market participants look to as a benchmark. The transparency of the CME's published quote history and trades gives confidence to the market and was utilized to conduct this study. More information on CME market data can be found at <http://www.cmegroup.com/market-data.html>.

**6. If institutional liquidity providers are in and out of trades in milliseconds or less, how long does it take a retail broker operating a dealing desk to offset client trades?**

When a retail broker makes a market for their clients, the broker may seek to offset/hedge its aggregate positioning through their own liquidity providers over the span of minutes or hours. If it takes the broker minutes or hours to effectively hedge their aggregate positioning, then short term scalpers going in and out of trades for seconds at a time increase the potential for losses and could be seen as predatory trading. That is why a dealing desk may use restrictions such as dealer intervention, re-quotes, or order restrictions to restrict this type of behavior and make it easier for their trading desk to manage risk. For example, if a Retail Client trading during the NFP release sells EUR/USD at 1.0825 and buys EUR/USD back 10 seconds later at the price 1.0805 for a profit of 20 pips, then the broker looking to hedge risk over the span of minutes to hours is left with an immediate loss of 20 pips.

FXCM's NDD forex execution offsets every trade one for one with our liquidity providers eliminating the hedging problems scalping creates for the typical retail dealing desk broker. The retail scalpers trading time-frame of seconds to minutes is still longer than the institutional liquidity providers trading time-frame of microseconds to milliseconds to get in and out of trades. That is why what would be considered predatory trading at the retail dealing desk level is not considered predatory trading for FXCM's liquidity providers on NDD forex execution.

FXCM does offer a dealing desk option in which we act as the liquidity provider on our mini account offering, and scalping is not allowed on that particular setup. The account is intended for smaller account sizes allowing us to manage the risk. Traders wanting to scalp are able to do so on the standard account with NDD forex execution.

**7. Do FXCM clients get pricing from the same liquidity providers participating in the institutional and futures market?**

Liquidity providers for FXCM generally also provide liquidity in the institutional and futures markets.

Institutional market volume largely occurs in two segments:

1. Anonymous ECN execution on venues such as EBS, Reuters, and the CME
2. Direct Bank Feeds

FXCM connects directly to each liquidity provider via direct feeds to receive pricing and liquidity instead of going through ECNs. The ability for a bank to send their direct feed to FXCM's Retail Clients, which excludes other liquidity providers from being able to take pricing, creates a trading environment<sup>9</sup> free of predatory trading allowing the banks to offer tighter prices. The rules we have in place do not allow one liquidity provider to take prices from another liquidity provider. Liquidity providers are only allowed to be price makers and not price takers. Only Retail Clients are allowed to take pricing.

This study does not intend to suggest that institutional venues do not serve a purpose. EBS, Reuters, and the CME are top institutional venues with deep liquidity and transparent pricing where market participants can take positions, hedge their own exposure, employ high frequency trading strategies or any other strategies. This benefits FXCM's Retail Clients because it gives our liquidity providers an outlet into which they can offset their own risk from entering into transactions with our Retail Clients.

**8. If FXCM's liquidity providers are also participants in the institutional market, why would they give better pricing to retail clients compared to the institutional market?**

FXCM's liquidity providers are motivated to provide better pricing<sup>10</sup> on our retail trading platform because our liquidity providers are only allowed to be price makers, and only a Retail Client is allowed to take a price. Liquidity provider A is not able to take a price from liquidity provider B, giving them the ability to make a market based on quality of price and liquidity rather than speed to protect against predatory trading from other liquidity providers. With a lower risk of being picked off, FXCM's liquidity providers can give better pricing<sup>11</sup> to Retail Clients.

In addition to being a trading environment<sup>12</sup> in which our liquidity providers are able to give better pricing execution<sup>13</sup>, there are additional advantages that allow our liquidity providers to be more flexible with their pricing for Retail Clients.

1. Retail Client Profile: the profile of our Retail Client base is generally much friendlier in terms of trading style and the ability for the liquidity provider to make a market. Retail Clients often hold

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<sup>9</sup> Please see Question 1 for detailed explanation on why FXCM's liquidity providers are able to give better execution pricing

<sup>10</sup> FXCM Study of execution for FXCM clients' orders 2015. Comparison does not include fixed costs, commission, or markup.

<sup>11</sup> Ibid.

<sup>12</sup> Please see Question 1 for detailed explanation on why FXCM's liquidity providers are able to give better execution pricing

<sup>13</sup> FXCM Study of execution for FXCM clients' orders 2015. Comparison does not include fixed costs, commission, or markup.

trades for a minimum of seconds to minutes which is much longer compared to the institutional market where participants are looking to get in and out of trades in fractions of a second. This gives FXCM's liquidity providers more flexibility in offering greater liquidity and tighter pricing with a lower likelihood of being picked off.

2. Retail Market Data: Liquidity providers use market data such as order execution as a factor in their trading algorithms to make markets. Having an additional data component such as retail order execution gives a better sense of market dynamics which can be factored into an institutional market making algorithm.

Having retail market data is an important component, but having access to it first is also important. The liquidity provider whose price gets taken by the Retail Client receives confirmation of the order before other liquidity providers which gives an information advantage, for a short amount of time, over its competitors. This creates an incentive for FXCM's liquidity providers to provide better pricing<sup>14</sup> for our Retail Clients in order to capture order flow which is market data that can be factored into their institutional market making algorithm to gain an edge on their competitors.

3. Additional Outlet for Offsetting Orders: Trading with FXCM's Retail Clients allows the liquidity providers to offset their own trades privately without their peers gleaning insight into their trading activity. This practice, commonly called 'skewing', allows for Retail Clients to receive pricing that would not be present in the institutional market as liquidity providers use FXCM's Retail Clients to quietly exit risk on their books without competitors discerning their trading activity.

## 9. If institutional traders use retail order and execution information as a part of their trading algorithm, does that put Retail Clients at a disadvantage?

HFTs and banks generally have access to more market data than the average trader. That is the case in most markets. In the FX market there is tiered access to information at the institutional level where HFTs can buy data at faster speeds and with more granularity. Most institutional venues sell market data at prices ranging in the thousands to 10's of thousands per month and is therefore unaffordable to most Retail Clients. Regardless, the volume of data being transmitted would likely be out of the scope of what the average trader would be able to process.

FXCM wants our Retail Clients to have access to as much information and market data as possible to incorporate into their own trading. That is why we have released the following order and positioning information tools for our clients:

- Real Volume Indicator: shows the total volume of live trades during a specified period. Total volume is calculated from the sum of individual transactions. [3]
- Real Transactions Indicator: shows the sum of individual tickets executed during a specified period. [3]

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<sup>14</sup> Ibid.



- SSI Snapshots Indicator: the FXCM Speculative Sentiment Index provides an in-depth look at how retail FX traders are positioned. Traders can view positioning snapshots updated every 10 seconds detailing positioning for 19 symbols directly on the charts or in real-time on the forex and CFD analysis portal DailyFX. [4] [5]
- Directional Real Volume: displays individually long, short, net and total values of FXCM's trading volume as opposed to total value only [6]

Most FX venues do not publicly release this type of data, especially in real-time, and those that do are likely to charge a high price for it. FXCM makes this data freely available for all of our live account holders.

**10. If FXCM's retail trading environment<sup>15</sup> allows liquidity providers to provide better pricing<sup>16</sup>, does that mean there is a disadvantage for Retail Clients?**

No because the trading profile of a Retail Clients is different than that of the typical institution on the futures or institutional market. Liquidity providers are often concerned about the profitability of a trade whose lifespan is under a second. For example if the liquidity provider got in at the price 31.9 and sold to you at the price 32, the liquidity provider could not care less about the outcome of your trade 5 seconds from now. Even the fastest retail scalper would likely be considered extremely slow compared to an HFT. It would be like racing the family minivan against a fighter jet. The speed advantage among the top liquidity providers at the futures and institutional level is enormous.

On FXCM's platform, the liquidity providers are only allowed to be price makers for our Retail Clients. They know that liquidity provider A (who may be a predatory liquidity provider on the futures market) is not allowed to cross over and take a price from liquidity provider B. Each liquidity provider is only allowed to take orders from Retail Clients. While the speed of retail trading is slower, it creates the trading environment<sup>17</sup> in which our liquidity providers are able to offer tighter pricing<sup>18</sup> without fear of being picked off which would happen at the institutional level by high frequency trading algorithms.

Additionally, FXCM also requires certain standards from our liquidity providers pertaining to order rejection rate, spreads, price quotes, and latency in order to participate in making a market for our Retail Clients. These are the standards our liquidity providers are ranked by:

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<sup>15</sup> Please see Question 1 for detailed explanation on why FXCM's liquidity providers are able to give better execution pricing

<sup>16</sup> FXCM Study of execution for FXCM clients' orders 2015. Comparison does not include fixed costs, commission, or markup.

<sup>17</sup> Please see Question 1 for detailed explanation on why FXCM's liquidity providers are able to give better execution pricing

<sup>18</sup> FXCM Study of execution for FXCM clients' orders 2015. Comparison does not include fixed costs, commission, or markup.

	<b>Top Provider Standards</b>	<b>Poor Provider</b>
<b>Reject Rate</b>	Rejection rate on both orders and volume is under 1%	Rejection rate by either orders or volume exceeds 5%.
<b>Wide Spreads</b>	No valid forex quotes have a spread over 40 pips. Only G10 majors and crosses are considered.	At least one valid quote exceeds 80 pips. Only G10 majors and crosses are considered.
<b>High Quotes per Second</b>	No individual second during the day has more than 40 quote updates for a particular symbol. All quote updates are considered, including liquidity updates and updates to deeper tiers.	At least one individual second during the day has more than 40 quote updates for a particular symbol. All quote updates are considered, including liquidity updates and updates to deeper tiers.
<b>High Frequency</b>	Less than 10% of quotes within each symbol are received within 40ms of another quote.	At least one symbol has more than 10% of quotes received within 40ms of another quote.
<b>Latency</b>	Average order confirmation round trip is less than 50ms.	Average order confirmation round trip is greater than 100ms.

FXCM’s liquidity providers are ranked based on compliance to these standards which we identify as providing the best customer experience possible. Liquidity providers providing the best pricing and execution according to these rules may gain an advantage over other liquidity providers which could result in an increase in orders captured. Poorly performing liquidity providers are ranked lower and ultimately could be removed from our platform until they return to compliance.

Implementing standards for liquidity providers to participate on our retail platform ensures competitive pricing as exemplified by the study. In return, the liquidity providers accept these standards in order to gain access to retail market data obtained when executing orders and an additional marketplace to hedge and offset their own orders.

#### **11. How is ‘last look’ being considered in this study and how would it impact execution?**

Last look, the ability of liquidity providers to reject an order, is used in the FX over-the-counter market. FXCM’s liquidity providers are able to use last look, with restrictions to prevent abuse, and it is used on all venues for direct pricing from banks. The practice originally started in the early days of electronic trading as liquidity providers wanted to ensure legitimately that traders were trading on the most recent pricing. Banks had slower setups and were not co-located with exchanges due to their own compliance rules. This put them at risk of being picked off, and last look was meant to account for any technological disadvantages caused by latency.

If not properly implemented, last look could be abused by liquidity providers to pick only the order flow they like while rejecting the rest. A high rejection rate would indicate that the liquidity provider's price is not real which could result in slippage<sup>19</sup>. That is why FXCM has put in place market making standards for our liquidity providers to act as a safeguard against abuses. These are the standards our liquidity providers are ranked by:

	<b>Top Provider Standards</b>	<b>Poor Provider</b>
<b>Reject Rate</b>	Rejection rate on both orders and volume is under 1%	Rejection rate by either orders or volume exceeds 5%.
<b>Wide Spreads</b>	No valid forex quotes have a spread over 40 pips. Only G10 majors and crosses are considered.	At least one valid quote exceeds 80 pips. Only G10 majors and crosses are considered.
<b>High Quotes per Second</b>	No individual second during the day has more than 40 quote updates for a particular symbol. All quote updates are considered, including liquidity updates and updates to deeper tiers.	At least one individual second during the day has more than 40 quote updates for a particular symbol. All quote updates are considered, including liquidity updates and updates to deeper tiers.
<b>High Frequency</b>	Less than 10% of quotes within each symbol are received within 40ms of another quote.	At least one symbol has more than 10% of quotes received within 40ms of another quote.
<b>Latency</b>	Average order confirmation round trip is less than 50ms.	Average order confirmation round trip is greater than 100ms.

FXCM's liquidity providers are ranked based on compliance to these standards which we identify as providing the best customer experience possible. Being a top ranked liquidity provider is important. Liquidity providers with the best pricing according to these rules may gain an advantage over other liquidity providers which could result in a large increase in orders captured. Poorly performing liquidity providers are ranked lower for order flow and ultimately could be removed from our platform until they return to compliance.

Implementing standards for liquidity providers to participate on our retail platform ensures competitive pricing as exemplified by the study. In return, the liquidity providers accept these standards in order to

<sup>19</sup> The comparison to each of the Futures and Interbank data is made at the time that the FXCM client order is executed. Normal market slippage and slippage due to rejections by liquidity providers are already included by the time the FXCM client order is executed. However, there is an assumption that there is no slippage on the Futures or Interbank market data. Accordingly, actual results likely would have been even more favorable to FXCM clients.

gain access to retail market data obtained when executing orders and an additional marketplace to hedge and offset their own orders.

### ***Does ‘Last Look’ exist on ECNs?***

‘Last look’ is not available on ECNs we compared against in this study, but there are still significant protections for liquidity providers in the form of super-fast Cancel/Replace orders. The price you see can be cancelled so quickly that the price you ultimately get may be different. Liquidity providers on an ECN update their prices very aggressively by cancelling and replacing orders hundreds of times per second. Because of the latency at the retail level compared to the high speed advantage of HFTs, the last price the Retail Client sees on an ECN is not likely to be the price they get resulting in slippage or a high number of misses which are orders attempting to hit a price which is no longer valid.

### **12. If FXCM’s pricing is better<sup>20</sup>, why don’t institutional clients use the platform?**

FXCM offers better pricing<sup>21</sup> specifically because we exclude trading which is often predatory in nature. Liquidity providers are only allowed to be price makers to our Retail Client base. Institutional venues such as CME, Reuters, EBS, etc. are the best trading venues for these sophisticated participants where they can compete against each other. If the same trading behavior allowed on institutional venues was allowed on our retail platform, it would negate the trading environment<sup>22</sup> which allows our liquidity providers, who are also participants in the institutional market, to price more competitively.

Our liquidity providers are only allowed to be price makers. This means that only Retail Clients can accept their price. Liquidity provider A is not able to take a price from liquidity provider B, giving them the ability to make a market based on the quality of price and liquidity rather than speed to protect against predatory trading from other participants. The result is that FXCM’s liquidity providers have a lower risk of being picked off which results in superior pricing to Retail Clients<sup>23</sup>.

### **13. How and why do liquidity providers operate differently with FXCM compared to the futures and institutional market?**

Liquidity providers in the futures and institutional market typically quote in smaller sizes at each price point and at a wider spread in order to protect themselves from other very sophisticated market participants such as high frequency traders.

Much of the volume in the futures and institutional market is considered predatory in nature. Participants are often looking to trade on very small time scales measured as low as microseconds. A liquidity provider allowing an order to sit available for too long, for too good of a price or for too much liquidity is likely to be picked off by other predatory participants if they are wrong. When you’re picking

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<sup>20</sup> FXCM Study of execution for FXCM clients’ orders 2015. Comparison does not include fixed costs, commission, or markup.

<sup>21</sup> Ibid.

<sup>22</sup> Please see Question 1 for detailed explanation on why FXCM’s liquidity providers are able to give better execution pricing

<sup>23</sup> FXCM Study of execution for FXCM clients’ orders 2015. Comparison does not include fixed costs, commission, or markup.

up pennies in front of bulldozers, you have to be as fast as possible. Mistakes can be very costly. The safer route for liquidity providers to take is therefore to quote smaller sizes at wider prices to minimize margin of error. The risk is too great to provide the best pricing possible with deep liquidity if the institution is being exposed to the risk of being picked off by very fast and sophisticated liquidity providers.

These sophisticated liquidity providers generally have access to massive amounts of data and high speed systems in order to compete in this type of system. It's not a venue in which the average trader will be able to compete due to the millions of dollars in capital (both physical and intellectual) needed to match their high frequency trading systems. If speed is the primary factor in this venue, who do you think is likely to get the best price and the worst price? The inability to match the speed of HFT's by Retail Clients becomes a less significant factor on FXCM's platform as long as the trader is taking and the liquidity provider is making.

Additionally, the simple act of hedging large orders or risk creates distortions in the institutional market which result in feedback loops making the act of hedging more expensive. As liquidity providers execute successive one directional trades other participants use sophisticated methods to discern these trading patterns resulting in them going in the same direction as the hedger. This results in progressively worse pricing for the liquidity provider who attempts to execute large orders in the market. In order to circumvent this high cost of hedging, liquidity providers will often 'skew' or make spreads that are abnormally tight in order to be top of book and get all of the flow from FXCM's Retail Clients. Skewing can result in choice pricing (0 spread) in major pairs like EUR/USD and USD/JPY for Retail Clients.

**14. Who would FXCM's pricing quality ideally benefit? Does trading size or trading style factor into this?**

Retail Clients, including those using automated and API strategies, trading for a few seconds or longer would be ideally suited for FXCM's pricing. These clients also trade in relatively smaller sizes per trade. The banks see all orders as coming through from FXCM; however, traders putting through large order sizes should be strategic with order placement. If for example a trader intends to put on a total trade size of 100 million and is entering orders of 5 million in a continuous fashion, liquidity providers may recognize a pattern. For traders wanting to put through larger amounts, we recommend breaking up position sizes into smaller amounts.

**15. Would larger trade sizes execute at a better price on futures/institutional market vs. FXCM pricing?**

Not necessarily. Banks tend to offer better liquidity on their direct pricing feeds because it excludes the predatory trading that often exists on an ECN. When trading large block positions, institutions prefer to use direct feeds to hide from predatory trading. In turn, the bank can then take the large block size and offset it algorithmically through an ECN. Additionally, the simple act of hedging large orders or risk can create distortions in the institutional market which result in feedback loops making the act of hedging more expensive. As liquidity providers execute successive one directional trades other participants use sophisticated methods to discern these trading patterns which can result in them going in the same direction as the hedger. This can lead to progressively worse pricing for the liquidity provider who attempts to execute large orders in the institutional market.

The trading style of FXCM's Retail Client base and trading environment<sup>24</sup> allows our liquidity providers to provide better execution pricing<sup>25</sup>. On FXCM's platform, liquidity providers are only allowed to be price makers for our Retail Clients. They know that liquidity provider A (who may be a predatory liquidity provider on the futures and institutional market) is not allowed to cross over and take a price from liquidity provider B. Each liquidity provider is only allowed to take orders from FXCM's Retail Client base. This creates a trading environment<sup>26</sup> for liquidity providers to offer tighter pricing without fear of being picked off which could happen at the institutional level by high frequency trading algorithms.

As a matter of best practices, FXCM's liquidity providers are not expecting clients to sweep \$50M per click. Trading such large sizes would be out of the trading behavior of the typical Retail Client and could cause the liquidity provider to become more cautious with pricing. So we ask traders to break up large orders so as to go unnoticed and ensure the liquidity providers continue to quote tight prices.

## 16. How would news events impact the quality of pricing?

During news events there is an increased likelihood of a very large move in price. That is why liquidity providers widen prices around news events. Liquidity providers do not know where the market is heading and widened spreads are a reflection of the uncertainty and greater risk of making a market.

News events attract predatory traders looking to take advantage of large price moves in short periods of time. The possibility of a large price move can be viewed as a money making opportunity, but can also lead to larger losses. While the liquidity provider is cautious at the retail level, they are doubly cautious at the institutional level keeping spreads wider for longer periods of time whereas FXCM's prices are restored faster to pre-news levels because we have fewer predatory clients<sup>27</sup>.

## 17. Can one Retail Client gain an advantage over another?

Unlike in the institutional market where participants may spend millions per year on market data access, all FXCM traders have the same access to data dissemination.

There are certain factors that could influence the speed at which an order is received such as:

1. API: FXCM makes our API available for free to anyone. There is no special access. Compared to manual traders, an API can increase trading speed because it allows you to code your trading rules into a strategy that automatically executes on your account. Additionally, an automated strategy doesn't get distracted and follows instructions exactly as written. [7]

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<sup>24</sup> Please see Question 1 for detailed explanation on why FXCM's liquidity providers are able to give better execution pricing

<sup>25</sup> FXCM Study of execution for FXCM clients' orders 2015. Comparison does not include fixed costs, commission, or markup.

<sup>26</sup> Please see Question 1 for detailed explanation on why FXCM's liquidity providers are able to give better execution pricing

<sup>27</sup> The comparison to each of the Futures and Interbank data is made at the time that the FXCM client order is executed. Normal market slippage and slippage due to rejections by liquidity providers are already included by the time the FXCM client order is executed. However, there is an assumption that there is no slippage on the Futures or Interbank market data. Accordingly, actual results likely would have been even more favorable to FXCM clients.

2. VPS: is often used by traders outside the United States to reduce latency when executing automated strategies. Using a VPS can mean faster order execution, but the costs are reasonable for Retail Clients averaging \$30-\$100 per month. VPS would not benefit manual traders since the signal to buy or sell would still encounter any latency from the trader's computer to the VPS setup. [8]
3. Internet Connection and Geographic Location: the geographic distance an order has to traverse will impact the amount of time it takes for the order to be received. An order will be received faster from a trader in Chicago, all else being equal, than a trader located in Hong Kong due to the distances over which the information has to travel. For example, Verizon Enterprise Solutions has measured round-trip latency in North America for October 2015 at 35.5ms.[9] Whereas latency from Hong Kong to the US for October 2015 was 164ms. Traders running an automated strategy can use VPS to reduce latency since the algorithm would run on the VPS as opposed to the users own computer. VPS would not benefit manual traders since the signal to buy or sell would still encounter any latency from the trader's computer to the VPS setup.

## Study Methodology & Data Questions

### 18. What order types were included in the study?

All FXCM order types were included in the study.

### 19. The study assumes no slippage on the futures market and institutional market when comparing pricing. How might actual pricing quality differ if this were taken into account?

The pricing quality of FXCM orders in the study already takes into account slippage and liquidity since the order was actually executed. By comparison, the study does not take into account possible slippage at the institutional and futures level since the comparison is being made against the displayed quote. It is assumed that the order would be filled at the relevant institutional and futures market data equivalent with no slippage. Actual results may have been even more favorable to FXCM clients since slippage does exist on the futures and institutional markets.

Does positive slippage exist? Theoretically, the chances of positive and negative slippage exist equally. But given the slower speed manual traders and non-HFTs operate at they may be more likely to experience more instances of negative slippage. HFTs being better and faster at predicting the next tick may capture more positive slippage, leaving more of the negative slippage for the non-HFTs.

**20. This study compares FXCM’s pricing to the futures and institutional market. How would it compare with other forex brokers?**

The study analyzes the quality of FXCM’s pricing against the CME, EBS, and Reuters. These venues make data publicly available, and additional data can also be purchased for this type of detailed analysis. FXCM does not have access to other retail forex broker’s order information to provide a comparison, but we welcome them to provide the same level of transparency FXCM has provided to the retail market. If our competitors wanted to compare their pricing against FXCM they could since we provide this data. However, most forex brokers are not as transparent as FXCM and don’t publish their own execution data.

**21. What does the study mean by liquidity normalization?**

The average minimum quote size for an FXCM liquidity provider is 1,000,000 units of the base currency whereas the CME standard contract size is smaller. For example:

- a. 125,000 EURUSD
- b. 125,000 USDJPY
- c. 125,000 USDCHF
- d. 62,500 GBPUSD
- e. 100,000 AUDUSD
- f. 100,000 NZDUSD
- g. 100,000 USDCAD

Smaller contract sizes are available such as the E-mini EUR/USD (62,500 Euros) and E-micro EUR/USD (12,500 Euros). Additional contract information can be found on the CME website. [\[14\]](#)

The average minimum quote size for an FXCM liquidity provider is 1,000,000 units of the base currency. Accordingly, when the best quote on the CME was less than 1,000,000 units of the base currency, the next best quote was used as the basis for each order comparison. This step was taken in order to normalize CME liquidity to compare against FXCM and institutional price data for the purposes of this study.

In normal circumstances, the aggregate amount of liquidity available at the best price to FXCM clients is greater than 1,000,000 because more than one liquidity provider is quoting that price. For that reason, this methodology is actually a conservative way of comparing quote size between the Futures market and FXCM. Furthermore, the second best quote on the CME may have been less than, equal to, or greater than 1,000,000 units of the base currency.



## **22. How were futures prices converted to spot prices for comparison?**

The spot price is the current cash price for exchanging one currency for another. The futures price is the spot price plus the basis. The basis can be influenced by interest rates and financing fees factored through to the contract expiration. As the futures contract approaches expiration, the spot and futures price will converge as the basis decreases. [15]

FXCM was able to compare pricing between the quoted futures price and FXCM order execution price by subtracting the historical basis data from the quoted futures price at the time the order was executed which was then compared against the price at which the order executed through FXCM.

For example, let's assume an FXCM trader bought EUR/USD and the order was executed at the price 1.1024 on January 1, 2015 at 8 hours 21 minutes and 35 seconds. Please note the price this order was executed at includes any execution related factors such as slippage since the order was actually executed. We then identify the quoted futures price on January 1, 2015 at 8 hours 21 minutes and 35 seconds and subtract the historical basis at that same moment to get the spot price equivalent to compare. If the quoted futures price was 1.1030 and the basis was 5, then the equivalent spot price was 1.1025. Conclusion being the price was better at FXCM by 1 pip. If the quoted futures price was 1.1028 and the basis was 5, then the equivalent spot price was 1.1023 indicating FXCM's price was worse by 1 pip. This gives a conservative comparison of FXCM's pricing quality since the futures price assumes no slippage upon order execution.

17,855,522 orders were analyzed using this method, comparing the order execution time, to the futures price at that same time, minus the historical basis at that exact moment. The results found that orders were executed through FXCM at a better price than the futures to spot equivalent 86.47% of the time.

## **23. Who is the 3rd party source used to convert futures prices to spot prices?**

Historical basis data from a top global bank was used to convert the relevant quoted futures price at the time when the FXCM order was executed to the equivalent spot price.

## **24. How does the study account for differences in the typical FXCM liquidity provider quote size of 1 million compared to varying futures contract sizes?**

On institutional platforms such as EBS and Reuters, the top of the book quote will be for a minimum of 1M. The same is true for liquidity providers on FXCM's platform with 1M being the typical quote size, and there may be multiple liquidity providers quoting 1M at the top of the book. On the CME, the top of the book is not necessarily 1 M because the contract sizes are smaller. For example, the standard contract size for Euro FX futures (EUR/USD) is 125,000 Euros, and there are also smaller contract sizes such as the E-mini EUR/USD (62,500 Euros) and E-micro EUR/USD (12,500 Euros). This means, you may have to go to the second or third tier of liquidity to get liquidity depth of at least 1M. In order to normalize liquidity and compare prices at the futures level, when the best quote on the CME was less than 1,000,000 units of the base currency, the next best quote was used as the basis for each order comparison.

**25. How would the study results differ if the FXCM execution rate is compared to the futures top of book price, without the 1M unit restriction?**

Even in an idealized hypothetical situation comparing the FXCM execution price against the futures top of book quoted price without the 1M restriction, 76.79% of orders were filled through FXCM at a better price resulting in estimated savings of \$22,869,618 to FXCM clients. This is compared to 86.47% of orders filled at the better price at FXCM with the 1M unit restriction on the quoted futures price. Again, it also assumes the futures order would be executed at the quoted price without any slippage which is a conservative hypothesis.

**26. How does cross currency pricing in the futures and institutional markets differ from retail pricing and how do cross currencies factor into the study?**

While banks quote cross currency rates to FXCM on direct feeds, there is a lack of equivalent cross currency data in the futures and institutional market to make a comparison statistically relevant.

Most cross currencies are synthetic crosses, and a natural market does not exist. A natural market is one in which you have institutions actively posting bids and offers, and natural currencies include the major pairs such as EUR/USD, USD/JPY, and GBP/USD. Even for a popular retail cross currency pair such as GBP/JPY, there is relatively little liquidity at the institutional level. Because of the lack of an active market for cross currencies, liquidity providers are less likely to make a market on the futures market for cross currencies. Liquidity providers quoting cross currency rates expose themselves to a high risk of being picked off by another predatory trader through triangular arbitrage, one of the most common legacy HFT strategies. It involves looking for price discrepancies between 3 currencies, and the HFT is looking to pick off the liquidity provider who is slow on one leg or the other of the transaction to capture the price discrepancy. To avoid this risk, liquidity providers may prefer not to make a market for cross currencies. If the liquidity provider does offer a market on a cross currency it may account for the risk with a wider spread. For example, if the spread on GBP/USD is 2 pips and USD/JPY is 1 pip, it does not necessarily mean the GBP/JPY spread will be 3 pips. The liquidity provider may quote a spread of 4 pips on GBP/JPY to take into account any delays in getting out of each leg of the transaction to prevent an arbitrage opportunity by another liquidity provider.

So how does the bank manage the cross currency flow from a direct feed? The bank will exit each leg of the cross currency trade on an ECN using natural market currencies where there is an active bid and offer. It is easier for their trading algorithm to make decisions. Using GBP/JPY as an example, the bank would exit each leg separately through the USD/JPY and GBP/USD currency pairs because a natural market with active pricing exists.

FXCM's retail trading environment<sup>28</sup> makes it possible for our liquidity providers to actively make a market in cross currencies where it may not be possible at the institutional level.

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<sup>28</sup> Please see Question 1 for detailed explanation on why FXCM's liquidity providers are able to give better execution pricing

**27. How were we able to compare cross currency data at the institutional level? Why were futures excluded from the cross currency comparison?**

Institutional market data for currency crosses was derived from the direct (natural market) currency pairs. For example in order to get the EUR/GBP rate, you would divide the EUR/USD rate by the GBP/USD rate. This would give the equivalent EUR/GBP rate for comparison. Triangular arbitrage being performed by HFTs at the institutional level would arb out any significant discrepancies.

Cross currency orders were excluded from the futures comparison portion of the study due to a lack of basis data for a fair value comparison.

**28. Which institutional trading venues were used to benchmark pricing?**

EBS pricing data was used to compare pricing for EUR, JPY, and CHF orders, and Reuters pricing data was used to compare pricing for GBP, CAD, NZD, and AUD orders. Each venue is considered the standard benchmark for the respective currencies based on the strength of the platform offering for liquidity and pricing.

**29. Why was +/- 5 pips selected as the maximum acceptable difference between the FXCM price and the spot price?**

The FX market is decentralized. Liquidity providers can choose to quote different pricing and liquidity at the futures and institutional level compared to the retail level on FXCM's platform. And we often see this difference in pricing quality at the futures and institutional level because of the trading speed and predatory nature of trading that occurs.

The quality of the historical basis can also impact the conversion of the futures price to the equivalent spot price. In order to filter out any possible erroneous data a filter of +/- 5 pips was chosen. This assumes that the futures equivalent spot price will track the spot price within a 5 pip range up or down. This turned out to be a conservative measure used in the study. Had we included the excluded data in the study which fell outside the set pip range, it would show FXCM clients benefiting by an additional \$11.2 million.

FXCM used this conservative method of eliminating potentially erroneous results, while also maintaining a large enough sample to remain statistically relevant. Approximately 1.8 million orders out of 20 million were excluded as a result of the pip difference > 10 pips. This exclusion changed the estimated savings to FXCM from \$47.9 million to \$36.6 million. There were also 60,000 orders excluded that fell in the range from 5-10 pips. Excluding the additional 60,000 orders changed the estimated savings to FXCM clients from \$36.6 million to \$36.3 million. Had we not used the more conservative calculation, the study would have shown even better results for FXCM clients.

In order to maintain consistency with the futures market data, the same acceptable ranges were applied for institutional market trades.

### **30. Why does the futures comparison contain 11 million fewer orders than the institutional comparison?**

There are fewer orders included in the futures comparison due to the exclusion of orders for cross currency pairs. Orders for cross currencies were excluded from the study due to a lack of basis data for cross currency pairs. Additionally, the futures market is closed for a short period each day. Any orders executed through FXCM during this period would not have relevant futures spot equivalent data to compare against and were therefore also excluded from the study.

### **31. Why accept any range of deviation? Can you only look at situations where the spot and futures equivalent converge perfectly?**

Looking only at situations where the spot and futures equivalent converged perfectly would assume that pricing between the futures market, interbank market, and spot FX market are exactly the same. This is not the case. The FX market is decentralized and liquidity providers can quote differently at the futures and institutional level compared to the retail level. Liquidity providers can pick and choose the pricing they give to different participants on different venues. And we often see this difference in pricing quality at the institutional level because of the trading speed and predatory nature of trading that occurs. Restricting liquidity providers on FXCM's platform to being only price makers and not price takers creates the environment<sup>29</sup> in which liquidity providers are able to offer better pricing<sup>30</sup> without fear of being picked off which could happen at the institutional level by high frequency trading algorithms. There can be periods when the spot price and futures price converge perfectly but it will not always be the case.

### **32. In the institutional market comparison, 44,000 orders were excluded because of a lack of institutional market pricing. If FXCM primarily uses NDD, how was FXCM able to execute orders when a price didn't exist in the institutional market?**

A lack of institutional market pricing may occur due to illiquid market periods such as rollover, the Sunday open, and news releases. Remember that even in normal market conditions, liquidity providers at the institutional level may protect themselves through wider spreads and lower liquidity. Add to this very illiquid market conditions and it becomes even more risky to make a market. As a result, 0.15% of the total orders in the study were excluded due to a lack of institutional pricing to compare against.

How was FXCM able to execute orders when a price didn't exist in the institutional market? Liquidity providers may be afraid to make a market at the institutional level but more willing on a direct feed to FXCM's clients because of our trading environment<sup>31</sup>. Liquidity providers are only allowed to be price makers for our Retail Clients and cannot be price takers. They know that liquidity provider A (who may be a predatory liquidity provider on the futures market) is not allowed to cross over and take a price from liquidity provider B. Each liquidity provider is only allowed to take orders from Retail Clients. And while these market conditions may warrant wider spreads and lower liquidity to minimize risk, the liquidity providers may still be willing to execute orders.

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<sup>29</sup> Please see Question 1 for detailed explanation on why FXCM's liquidity providers are able to give better execution pricing

<sup>30</sup> FXCM Study of execution for FXCM clients' orders 2015. Comparison does not include fixed costs, commission, or markup.

<sup>31</sup> Ibid.

## Futures Related Questions

### 33. How does the commission and spread cost at FXCM compare to the futures market<sup>32</sup>?

Round turn trading costs including the spread, commission, and any additional exchange and regulatory fees are up to 58% lower at FXCM compared to popular futures brokers. The tables below show the EUR/USD trading costs with FXCM versus the following 3 EUR/USD contract sizes traded on the CME:

- Euro FX Futures (6E) 125,000 Euros
- E-mini Euro FX Futures (E7) 62,500 Euros
- E-micro Euro FX Futures (M6E) 12,500 Euros

The all-in cost includes round turn broker commission, round turn exchange fees, round turn regulatory fees, and the typical trading spread cost. The minimum tick in the futures market during the period of the study for EUR/USD is 1 full pip, and the typical spread at FXCM for EUR/USD is 0.5 pips as measured from 1 April 2015 to 30 June 2015. The commission costs for each broker are current as of December 9, 2015 and are the fixed commission cost non-dependent on trading volume. The commission costs are based off of publicly available information, including information found on their website. Some brokers offer tiered pricing for high volume traders, and we compare the best tiered pricing option for futures brokers against FXCM's active trader pricing separately in the following question.

#### Euro FX Futures (6E) All-In Cost Comparison

Lightspeed	\$16.96	vs. <b>\$16.25 FXCM</b>	FXCM's trading cost is lower by <b>10%</b> on average compared to the listed futures brokers when trading the standard sized Euro futures contract 6E.
Interactive Brokers	\$17.42		
MB Trading	\$17.46		
TradeStation	\$18.12		
TD Ameritrade	\$20.24		

#### Detailed Cost Comparison

Euro FX Futures (6E)							FXCM			
Futures Broker	Commission	Exchange Fee	Reg. Fee	Typical Spread (1 Pip)	All in Cost	% Savings	All In Cost	Typical Spread (0.5 Pips)	Commission (125k)	
Light Speed	\$1.20	\$3.24	\$0.02	\$12.50	\$16.96	4%	\$16.25	\$6.25	\$10	
Interactive Brokers	\$1.70	\$3.20	\$0.02	\$12.50	\$17.42	7%	\$16.25	\$6.25	\$10	
MB Trading	\$1.70	\$3.24	\$0.02	\$12.50	\$17.46	7%	\$16.25	\$6.25	\$10	
TradeStation	\$2.40	\$3.20	\$0.02	\$12.50	\$18.12	10%	\$16.25	\$6.25	\$10	
TD Ameritrade	\$4.50	\$3.22	\$0.02	\$12.50	\$20.24	20%	\$16.25	\$6.25	\$10	
							<b>10%</b>	<b>Average Savings</b>		

<sup>32</sup> Fees that a participant would pay on the Futures or Interbank market, such as CME Exchange Fees, NFA Fees, FCM Fees, Clearing Fees, and other commissions, were excluded from the study. Similarly, FXCM Commissions are excluded from the study.

## E-mini Euro Futures (E7) All-in Cost Comparison

Interactive Brokers	\$8.97	vs.	\$8.17 FXCM	FXCM's trading cost is lower by <b>20%</b> on average compared to the listed futures brokers when trading the E-mini Euro futures E7.
Lightspeed	\$9.21			
MB Trading	\$9.71			
TradeStation	\$10.37			
TD Ameritrade	\$12.49			

### Detailed Cost Comparison

E-mini (E7)							FXCM			
Futures Broker	Commission	Exchange Fee	Reg. Fee	Typical Spread (1 Pip)	All in Cost	% Savings	All In Cost	Typical Spread (0.5 Pips)	Commission (63k)	
Interactive Brokers	\$1.00	\$1.70	\$0.02	\$6.25	\$8.97	9%	\$8.17	\$3.13	\$5.04	
Light Speed	\$1.20	\$1.74	\$0.02	\$6.25	\$9.21	11%	\$8.17	\$3.13	\$5.04	
MB Trading	\$1.70	\$1.74	\$0.02	\$6.25	\$9.71	16%	\$8.17	\$3.13	\$5.04	
TradeStation	\$2.40	\$1.70	\$0.02	\$6.25	\$10.37	21%	\$8.17	\$3.13	\$5.04	
TD Ameritrade	\$4.50	\$1.72	\$0.02	\$6.25	\$12.49	35%	\$8.17	\$3.13	\$5.04	
						<b>20%</b>	<b>Average Savings</b>			

## E-micro Euro Futures (M6E) All-in Cost Comparison

Interactive Brokers	\$1.89	vs.	\$1.67 FXCM	FXCM's trading cost is lower by <b>58%</b> on average compared to the listed futures brokers when trading the E-micro Euro futures contract M6E.
TradeStation	\$3.99			
TD Ameritrade	\$6.11			

### Detailed Cost Comparison

E-micro (M6E)							FXCM			
Futures Broker	Commission	Exchange Fee	Reg. Fee	Typical Spread (1 Pip)	All in Cost	% Savings	All In Cost	Typical Spread (0.5 Pips)	Commission (13k)	
Interactive Brokers	\$0.30	\$0.32	\$0.02	\$1.25	\$1.89	12%	\$1.67	\$0.63	\$1.04	
TradeStation	\$2.40	\$0.32	\$0.02	\$1.25	\$3.99	58%	\$1.67	\$0.63	\$1.04	
TD Ameritrade	\$4.50	\$0.34	\$0.02	\$1.25	\$6.11	73%	\$1.67	\$0.63	\$1.04	
						<b>58%</b>	<b>Average Savings</b>			

Please note that the minimum trade size with FXCM is 1,000 units of currency therefore the E-mini Euro futures contract was compared to a lot size of 63,000 at FXCM and the E-micro futures contract was compared to a lot size of 13,000 at FXCM. Rounding up the lot size gives a more conservative cost comparison since the larger lot size also means a higher FXCM commission and spread cost in the comparison. The pricing does not include any data fees or platform fees which are common when trading futures. There is no data fee or platform fee when trading with FXCM's Trading Station platform or the Metatrader 4 platform.

### 34. How would trading costs for active traders on tiered pricing compare between futures brokers and FXCM<sup>33</sup>?

Some brokers offer tiered pricing with lower commission cost for active traders. The higher amount traded the lower the commission cost. The following table demonstrates that even at the best pricing tier available on each brokers website, total trading costs remain significantly lower at FXCM which can add up to substantial cost savings for active traders.

The all-in cost includes round turn broker commission, round turn exchange fees, round turn regulatory fees, and the typical trading spread cost. The minimum tick in the futures market is 1 full pip during the period the study was conducted, and the typical spread at FXCM for EUR/USD is 0.5 pips as measured from 1 April 2015 to 30 June 2015. The commission costs for each broker are current as of December 9, 2015.

#### Euro FX Futures (6E) All-in on Lowest Cost Tiered Pricing

Interactive Brokers	\$16.22	vs.	\$10.75 FXCM	FXCM's trading cost is lower by <b>34%</b> on average compared to the listed futures brokers when trading the standard sized Euro futures contract 6E.
TradeStation	\$16.22			
Lightspeed	\$16.26			
MB Trading	\$16.66			

#### Detailed Cost Comparison

Euro Futures (6E)						FXCM			
Futures Broker	Commission	Exchange Fee	Reg. Fee	Typical Spread (1 Pip)	All in Cost	% Savings	All In Cost	Typical Spread (0.5 Pips)	Commission (125k)
Interactive Brokers	\$0.50	\$3.20	\$0.02	\$12.50	\$16.22	34%	\$10.75	\$6.25	\$4.50
TradeStation	\$0.50	\$3.20	\$0.02	\$12.50	\$16.22	34%	\$10.75	\$6.25	\$4.50
Light Speed	\$0.50	\$3.24	\$0.02	\$12.50	\$16.26	34%	\$10.75	\$6.25	\$4.50
MB Trading	\$0.90	\$3.24	\$0.02	\$12.50	\$16.66	35%	\$10.75	\$6.25	\$4.50
						<b>34%</b>	<b>Average Savings</b>		

#### E-mini Euro Futures (E7) All-in on Lowest Cost Tiered Pricing

Interactive Brokers	\$8.27	vs.	\$5.41 FXCM	FXCM's trading cost is lower by <b>37%</b> on average compared to the listed futures brokers when trading the standard sized Euro futures e-mini contract E7.
TradeStation	\$8.47			
Lightspeed	\$8.51			
MB Trading	\$8.91			

#### Detailed Cost Comparison

E-mini (E7)						FXCM			
Futures Broker	Commission	Exchange Fee	Reg. Fee	Typical Spread (1 Pip)	All in Cost	% Savings	All In Cost	Typical Spread (0.5 Pips)	Commission (63k)
Interactive Brokers	\$0.30	\$1.70	\$0.02	\$6.25	\$8.27	35%	\$5.41	\$3.13	\$2.28
TradeStation	\$0.50	\$1.70	\$0.02	\$6.25	\$8.47	36%	\$5.41	\$3.13	\$2.28
Light Speed	\$0.50	\$1.74	\$0.02	\$6.25	\$8.51	36%	\$5.41	\$3.13	\$2.28
MB Trading	\$0.90	\$1.74	\$0.02	\$6.25	\$8.91	39%	\$5.41	\$3.13	\$2.28
						<b>37%</b>	<b>Average Savings</b>		

<sup>33</sup> Fees that a participant would pay on the Futures or Interbank market, such as CME Exchange Fees, NFA Fees, FCM Fees, Clearing Fees, and other commissions, were excluded from the study. Similarly, FXCM Commissions were excluded from the study.

## E-micro Euro Futures (M6E) All-in on Lowest Cost Tiered Pricing

Interactive Brokers \$1.69  
TradeStation \$2.09

vs.

\$1.11 FXCM

FXCM's trading cost is lower by **41%** on average compared to the listed futures brokers when trading the standard sized Euro futures micro contract M6E.

### Detailed Cost Comparison

E-micro (M6E)						FXCM			
Futures Broker	Commission	Exchange Fee	Reg. Fee	Typical Spread (1 Pip)	All in Cost	% Savings	All In Cost	Typical Spread (0.5 Pips)	Commission (13k)
Interactive Brokers	\$0.10	\$0.32	\$0.02	\$1.25	\$1.69	34%	\$1.11	\$0.63	\$0.48
TradeStation	\$0.50	\$0.32	\$0.02	\$1.25	\$2.09	47%	\$1.11	\$0.63	\$0.48
						<b>41%</b>	<b>Average Savings</b>		

### 35. How do you take into account the fact that it is possible to avoid paying the spread in the futures market?

It is possible, but you are not likely to have a consistent positive outcome. Why not? Think about who does the majority of trading volume on the futures market and is most likely counterparty to hit your pricing, HFTs. Because the majority of trading volume is being done by HFTs, they are most likely to hit your pricing. If the move is in their favor and against you, then you're likely to have your order executed because the HFT's algorithm has predicted you are wrong. While you think you may be getting a better price, our study shows this is not the case the majority of the time. HFTs are updating their pricing 100's of times per second and are more likely to have the most current price by the time your order reaches the exchange. The slower trader is at a disadvantage in the speed race and has a better chance of ending up on the wrong side of the trade.

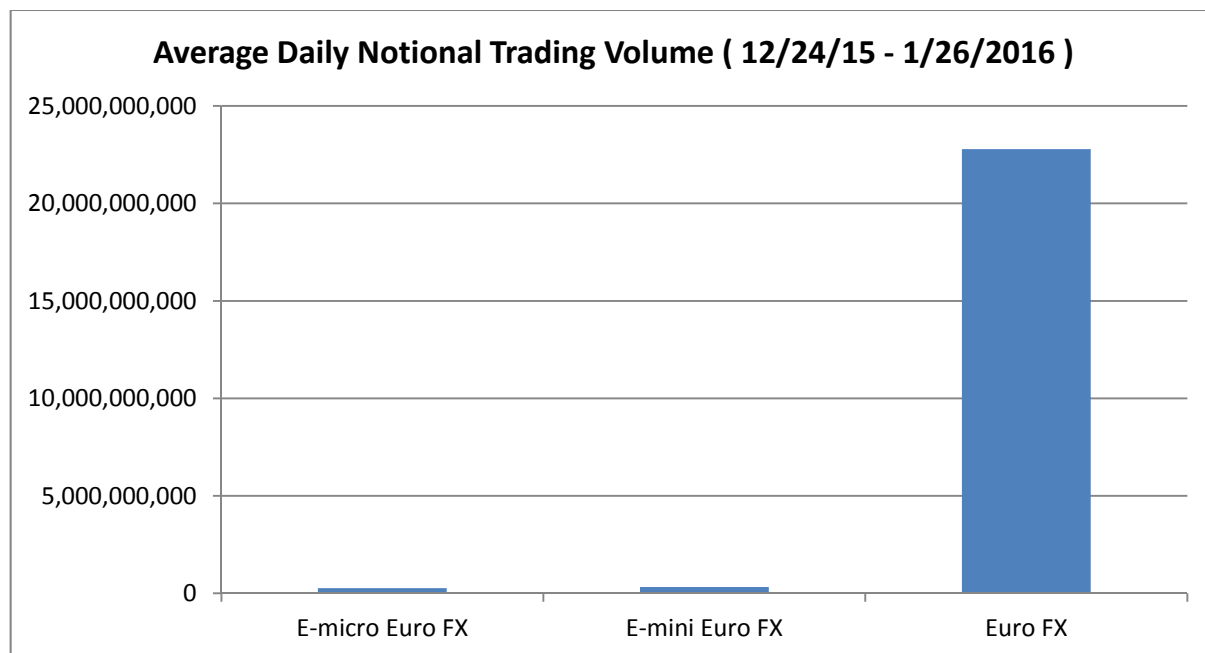
Being able to make a market as a retail participant faster than an HFT and on a consistent basis is similar to that of a race between a family minivan and a fighter jet. An HFT has spent millions of dollars on market data reception, hardware, and order transmission to be the fastest possible at predicting the next tick. The chances of an at home trader being able to beat an HFT to a better price when the market is moving in their favor or send cancel/replace orders faster than an HFT when the market is moving against them is unlikely. If an HFT spots the potential for a better price, their speed advantage will make it more likely that they win the high speed race to capture the better price. And the HFT is more likely to let the retail client capture the price to avoid the spread if the HFT's algorithm has predicted it to be unprofitable.

If Retail Clients were doing so well with this strategy, they would have a higher share of trading volume at the institutional level and spreads would be tighter. But that is not the case.



**36. How does trading volume in the E-micro and E-mini contracts, where the average Retail Clients would be most likely to trade, compare to the standard EUR/USD futures contract?**

The following table displays the average daily notional trading volume for the E-micro (M6E), E-mini (E7), and Euro FX Futures (6E) contract from December 24, 2015 to January 26, 2016. [11] [12] [13]



Average daily notional E-micro trading volume makes up a mere 1.1% of total EUR/USD futures volume and E-mini trading volume makes up only 1.4% of total EUR/USD futures volume. There is relatively very little participation in the E-micro and E-mini contracts where it would be expected that most Retail Clients would participate.

**37. Would CME membership substantially impact pricing for a Retail Client<sup>34</sup>?**

CME members get a discount on CME trading and clearing services. How much does the CME membership cost? According to the CME website as of December 9, 2015, the last sale took place on November 11, 2015 for a sale price of \$350,000.

CME members are charged a total exchange fee of \$0.32 per side per contract for the 6E Euro futures contract vs. the \$1.60 exchange fee listed for non-members on the CME fee schedule.[10] In order for a trader to recuperate the \$350,000 membership price, based on the \$1.28 fee reduction, the trader would have to trade a total of 136,719 contracts round turn in order for the reduction in exchange fee to compensate for the \$350,000 membership cost. 136,719 Euro futures contracts would be the

<sup>34</sup> Fees that a participant would pay on the Futures or Interbank market, such as CME Exchange Fees, NFA Fees, FCM Fees, Clearing Fees, and other commissions, were excluded from this study. Similarly, FXCM Commissions were excluded from this study.

equivalent of 17,089,875,000 billion in notional trading volume. A Retail Client would need a massive output in volume to justify the fixed cost of membership. It is more likely that this volume level would be associated with an institution or more advanced trader who also has additional fixed costs for market data and related services that factor into the HFT race for speed advantages when trading significant volumes to cover large fixed costs.

### **38. How do differences in trading hours on the futures exchange impact the results?**

Looking only at the hours of 9am to 5pm when the futures exchange may be most active, orders were filled at a better price with FXCM 85.64% of the time compared to the spot equivalent futures quoted price resulting in an estimated savings of \$15,342,847<sup>35</sup>.

## **FXCM Account/Execution Specific Questions**

### **39. My account is on a spread mark-up pricing model. How would the study fare for my pricing?**

Spread mark-up clients are still paying commissions but the commission is paid in the form of a mark-up added onto the NDD pricing. The base price for NDD Spread + Commission clients is the same base price used before adding the mark-up for the 'spread mark-up' pricing model. Therefore spread mark-up clients have the same base price quality as Spread + Commission clients<sup>36</sup>.

In order to have a complete comparison, any additional fees such as commissions (which can vary by futures broker), exchange fee, regulatory fee, data feed fee, etc. would have to be added to the futures/institutional pricing in a new study for comparison.

### **40. How does the data stack up against FXCM's dealing desk pricing?**

FXCM has a dealing desk offering in which we act as the liquidity provider. This execution option is offered on smaller accounts in order to manage the risk. The base price for NDD forex execution with Spread + Commission pricing model is the same base price used for dealing desk clients before the spread mark-up<sup>37</sup>. Since the same base pricing is used, our dealing desk clients benefit from the same pricing quality advantage that our NDD clients experience as exemplified in the study. In order for a complete comparison to be made any additional fees such as commissions (which can vary by broker), exchange fee, regulatory fee, data feed fee, etc. would have to be added to the futures/institutional pricing in a new study for comparison.

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<sup>35</sup> Quality of Execution Study: FXCM Order Execution Compared to FX Futures and the Interbank Spot FX Market

<sup>36</sup> Fees that a participant would pay on the Futures or Interbank market, such as CME Exchange Fees, NFA Fees, FCM Fees, Clearing Fees, and other commissions, were excluded from this study. Similarly, FXCM Commissions were excluded from this study.

<sup>37</sup> Ibid.

FXCM's forex dealing desk offering does not have dealer intervention or re-quotes. We are able to offer this service since it is only available on smaller account sizes with a limited number of currency pairs in order to minimize risk.

**41. How would this study look if we included CFDs such as oil, metals, and indices?**

This is an FX only study. CFD's were not included.

**42. If 1 million is the average minimum quote size from an FXCM liquidity provider, how do you handle smaller orders? Is it really NDD?**

If a liquidity provider has a quote size of 1M at a specific price, it means the liquidity provider is willing to execute up to 1M at that price. It is possible for order sizes smaller than 1M to be partially filled at that price by the liquidity provider. For example, if a client submits an order of 5k at 1.0780 and the offered amount by the liquidity provider is 1M at 1.0780, then the order of 5k may be filled at 1.0780 since it does not exceed the total liquidity on offer. The liquidity provider is willing to execute smaller sized orders at the quoted price even though it does not sweep the entire liquidity amount offered by the liquidity provider at that price.

**43. What is the smallest order size that can be traded with FXCM?**

FXCM's liquidity providers on NDD forex execution will offset orders as small as 1,000 (1k). A trade of 1k EUR/USD would be for a notional size of 1,000 Euros. The smallest size on the CME is the E-micro EUR/USD (M6E) futures with a contract size of 12,500 Euros.

The smallest 1k trading size makes FX trading more accessible to the retail community and with a greater level of customization in trading size compared to futures trading.

**44. Is there any reason we only focused on FXCM LLC for this study rather than for the whole client database.**

The study focuses on orders placed using our Spread + Commission pricing model which is what the majority of clients trading with FXCM LLC are on<sup>38</sup>. In this model, clients trade on the direct quotes we receive from our liquidity providers and FXCM charges a separate commission as our compensation. This allowed for a more direct comparison to the futures and institutional market where commissions are charged separately. Additionally, all orders in the study are reported daily via the Forex Transaction Reporting Execution Surveillance System (FORTRESS) as required by NFA regulations [16] and can therefore be audited if required by our regulators.

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<sup>38</sup> Fees that a participant would pay on the Futures or Interbank market, such as CME Exchange Fees, NFA Fees, FCM Fees, Clearing Fees, and other commissions, were excluded from this study. Similarly, FXCM Commissions were excluded from this study.

Non-LLC clients may include traders who pay a spread with the commission included in the form of a mark-up. Creating a separate analysis for mark-up orders would have added additional complexity and time, in addition to the 4+ months it took to create this report. Note FXCM LLC represents less than 25% of our entire retail client base. When extrapolated out to our global audience the potential savings would be greater than \$145 million when compared against the quoted futures price and greater than \$220 million when compared to institutional quoted prices.

**45. Will you continue to provide this report on a regular basis?**

We will release these types of studies on a periodic basis. Due to the intensive nature of analyzing such large amounts of data, we do not have a set schedule for release. The study took over 4 months to complete and is time intensive. But we are committed to leading the forex industry in transparency by releasing this type of information on a periodic basis as we have done with our slippage statistics, traits of successful traders guide, and now this pricing study.

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# Additional Reading and Resources

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