

WELLS
FARGO

SECURITIES

Global Exchange Traded Services Futures Commission Merchant

Global execution and clearing services for institutional customers

August 2020

PJM/Wells Fargo Clearing Discussion August 26th

Confidential—for discussion and general information purposes only.



Agenda

Introductions

Wells Fargo FCM Overview

- Background
- Client Selection/ Institutional Credit Analysis

On-Boarding

- Initial Set-Up
- On-Going Maintenance
- Technology Integration
- Documentation

Wells Fargo Value Proposition

Market Structure/ Clearing Overview

- Guaranty Fund
- Capital
- Risk Mitigation

Questions

Wells Fargo Securities Overview

Global execution and clearing services for institutional customers

Global Exchange Traded Services, what we do:

As an industry leader, Wells Fargo Securities has an extensive footprint in the futures market, covering more than 45 major exchanges¹ worldwide.

The mission of Global Exchange Traded Services (FCM) is to help Wells Fargo customers meet their risk management needs by providing them with effective and convenient access to the derivative markets through full-service execution and clearing of exchange-traded and over-the-counter (OTC) derivatives to corporate and institutional customers globally¹. We provide:

- “High-touch” voice brokerage for futures and options
- Direct market access for self-execution of futures and options
- Customized clearing services
- A single point of contact across cleared OTC and listed futures products

Why Wells Fargo

Wells Fargo is one of the largest, most highly rated, and well-capitalized bank counterparties in the world.

As a leading global financial services provider, Wells Fargo has:

- One of the highest credit ratings of any financial services company, with a BBB+ S&P credit rating²
- A core tier 1 capital well above the Basel III threshold
 - *one of the highest among major U.S. banks*
- A liquidity coverage ratio substantially above the 100% threshold
- \$2 trillion in assets,³ which allows us to continue to be one of the strongest and best-capitalized banks on the street

Futures and OTC Clearing Services		Futures Execution	
Clearinghouse access	<p>Offers clearing services with major exchanges¹ and central clearing houses. Includes:</p> <ul style="list-style-type: none"> • Futures and options on futures cleared on the majority of exchanges around the globe • Interest rate swaps cleared on CME and LCH • Credit default swaps cleared on ICE 	Market access	<p>Provides access to an extensive network of more than 45 futures exchanges¹ worldwide covering futures contracts on all traded asset classes:</p> <ul style="list-style-type: none"> • Energy • Metals • Food and agriculture • Equity index • Interest rates • FX
Collateral optimization	<p>Provides solutions to help customers efficiently allocate collateral to meet their margin requirements</p>	Voice brokerage	<p>Executes futures contracts for customers 24/5.5, provides direct access to trading floors, and specializes in multi-exchange, multi-asset class execution. <i>Execution desks in: Charlotte, Chicago, Los Angeles, and London</i></p>
Efficiency	<p>Offers automated workflow that processes scale and volume</p>	Electronic trading	<p>Offers customers direct market access via a number of industry-leading electronic execution front-end systems, provides vendor-offered algorithmic trading capabilities and supports order routing via application programming interfaces and FIX connectivity</p>
Derivatives Access	<p>Delivers a web-based customer portal for credit, risk, and treasury management. Provides a centralized hub for:</p> <ul style="list-style-type: none"> • Early margin estimation • Real-time position limit monitoring and alerts • Standard and customized reports • Three-way proprietary reconciliation tool 		

Why customers choose us

Highly rated FCM, Significant capacity under Basel III liquidity standards, Strong risk management and credit culture



Our key strengths allow us to deliver the best support and execution for our customers

Risk Protection

- Institutional customers from a variety of market sectors

Strong Capital Base

- Wells Fargo Securities, LLC A+ S&P² rating
- Commercial bank base with strong balance sheet

Reliability

- One of the oldest, continuously operating financial institutions in the world
- Wells Fargo & Co. was profitable every year throughout the financial crisis

Customer-Centric

- Experienced staff in trade processing, deliveries, option exercise & assignment, focused on superior customer needs and support
- A single service point of contact for OTC & listed futures expertise

Tools and Analytics

- Real-time decision tools and analytics
- Trade lifecycle-based reporting and reconciliation
- Wide array of futures execution platforms and capabilities to suit most customer needs

Knowledgeable Support

- Execution sales team averages greater than 15 years' experience
- Knowledgeable clearing sales team dedicated to market specific needs such as food, agriculture, energy, financials, interest rates and metals

Our Company

We have the resources and experience to help your business succeed financially

- Wells Fargo & Company (NYSE: WFC) is a diversified, community-based financial services company with \$1.9 trillion in assets. Wells Fargo’s vision is to satisfy our customers’ financial needs and help them succeed financially. Founded in 1852 and headquartered in San Francisco, Wells Fargo provides banking, investments, mortgage, and consumer and commercial finance through 7,400 locations, 13,000 ATMs, the internet (wellsfargo.com) and mobile banking, and has offices in 32 countries and territories to support customers who conduct business in the global economy. With approximately 263,000 team members, Wells Fargo serves one in three households in the United States. Wells Fargo & Company was ranked No. 29 on *Fortune’s* 2019 rankings of America’s largest corporations.

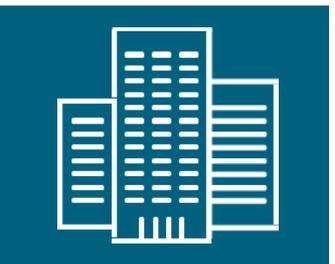
Good to know



70 million
customers



263,000
team members



90
diverse
businesses



One in three
U.S. households
do business with
Wells Fargo



Global
footprint in
more than **32**
countries
and territories

Source: Wells Fargo financial results press release as of April 14, 2020, data as of March 30, 2020

Historical growth of Wells Fargo



1852

Henry Wells and William Fargo founded Wells, Fargo & Co. to serve the West offering banking and express services

1969

Wells Fargo & Company holding company was formed, with Wells Fargo Bank as its main subsidiary

1988

Wells Fargo acquired Barclays Bank of California from Barclays plc

1995

Wells Fargo became the first major financial services firm to offer Internet banking

1998

Wells Fargo Bank merged with Norwest Corporation of Minneapolis

2008

Wells Fargo acquired Wachovia Corporation nearly doubling the size of the company

2016

Wells Fargo acquired GE Capital's North American Commercial Distribution Finance and Vendor Finance businesses

2020

Today, Wells Fargo is a leading financial services company headquartered in the United States with an extensive global reach

Our financial strength and stability are cornerstones that give your business peace of mind

Our excellent credit rating and strong Tier 1 Common Equity Capital Ratio are the foundations that we strive to maintain—ensuring stability and the ability to grow so we can serve our clients well.

S&P
Rating
A⁻¹

Tier 1 CE
Capital Ratio
10.7%²
*A leader among
major U.S. banks*

1) Wells Fargo & Co. S&P credit rating as of 2/7/18
2) Wells Fargo & Co. ratio, fully phased-in as of March 30, 2020

Global Exchange Traded Services

Global Exchange Traded Services: What We Do

The mission of Global Exchange Traded Services (FCM) is to help Wells Fargo customers meet their risk management needs by providing them with effective and convenient access to derivative markets through high-quality execution and clearing of futures and options on futures and clearing of over-the-counter (OTC) derivatives. Wells Fargo Securities provides these services to corporate and institutional customers globally by providing:

- 'High-touch' voice brokerage for futures and options
- Direct market access for self-execution of futures and options
- Customized clearing services
- A single point of contact across cleared OTC and listed
- futures products

Futures Execution

Market Access: Providing access to more than 45 futures exchanges covering futures contracts and options on futures contracts on a variety of asset classes including:

- Energy
- Metals
- Food & Agriculture
- Equity index
- Interest rates
- FX

Voice Brokerage: Executing futures for customers 24/5 with direct access to trading floors and specializing in multi-exchange, multi-asset class execution with execution desks located in Charlotte, Chicago, Los Angeles, and London.

Electronic Trading: Offers customers direct market access to a number of industry-leading electronic execution front-end systems, and supports order routing via application programming interfaces and FIX connectivity.

Futures & OTC Derivative Clearing

Clearing House Access: Offering clearing services on major exchanges and central clearing houses including:

- Futures and options on futures cleared on the majority of exchanges around the globe
- Interest rate swaps cleared on CME and LCH
- Credit default swaps cleared on ICE Clear Credit

Efficiency: Automated workflow that processes scale and volume.

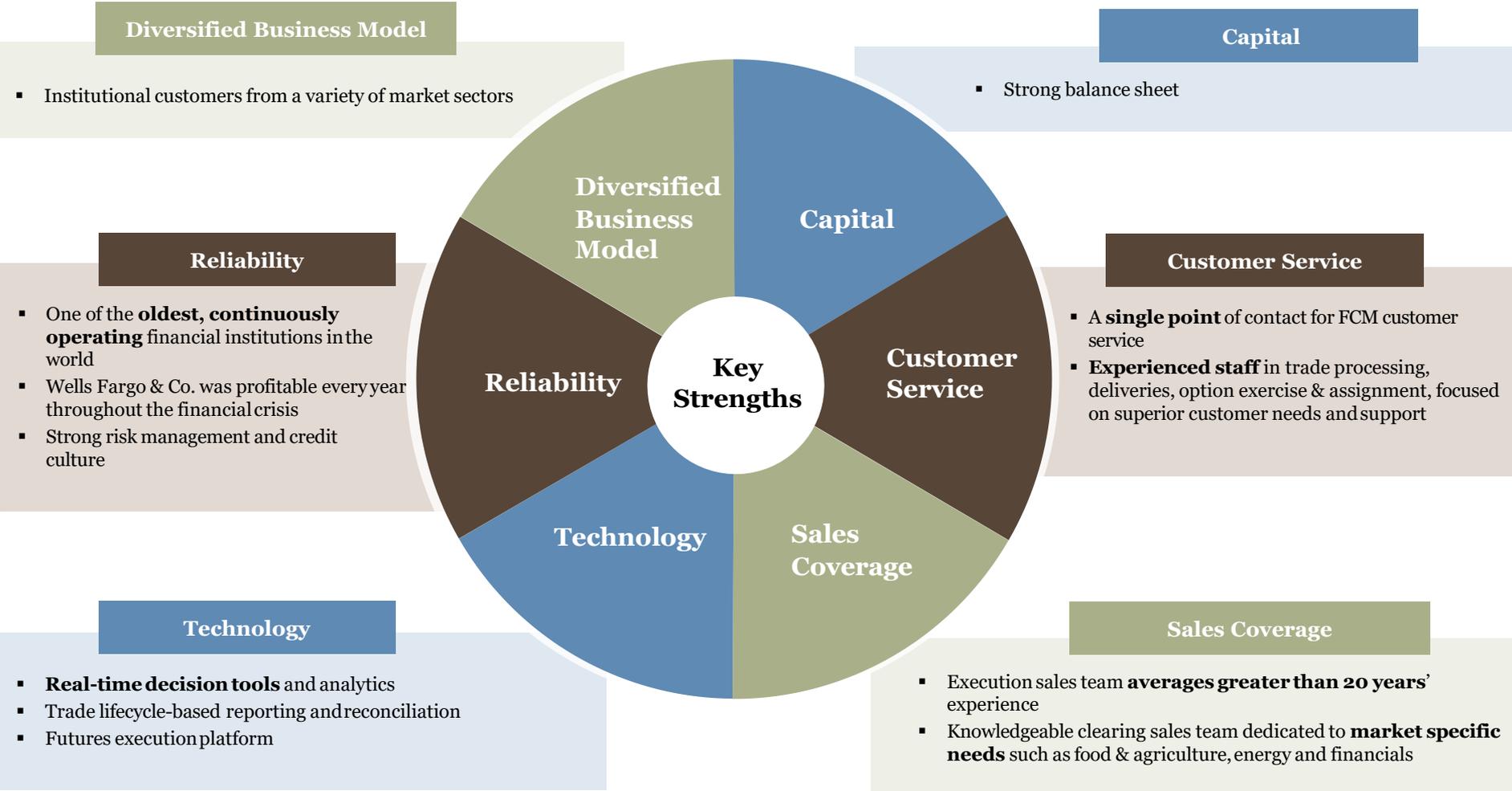
Derivatives Access: Delivering a web-based customer portal for credit, risk and treasury management. Provides a centralized hub for:

- Daily Clearing Activity, available real-time intraday
- Cleared Open Positions, available T+1
- Collateral, available T+1
- Daily Statement, this is a regulatory statement and is available in pdf format only, available T+1
- Monthly Statement, this is a regulatory statement and is available in pdf format only, available T+1
- Customized Reports

A market leader and partner providing full-service execution and clearing services

Access to global exchanges are either through WFS's direct memberships or 3rd party carrying brokers.

Why Customers Select Wells Fargo's FCM



Extensive Market Access

- WFS offers its customers access to exchanges globally, either through direct memberships or third-party carrying brokers.

Voice Brokerage Execution Capabilities

- Institutional execution desks in Charlotte, Chicago, Los Angeles, London, and Paris.
- Provide execution capabilities 24/5 across global markets

Customer Electronic Trading Offerings

- Offers customers direct market access to a number of industry-leading electronic execution front-end systems, and supports order routing via application programming interfaces and FIX connectivity.

Wells Fargo & Co. Global Office Locations



Chicago, London, and Paris Desks*

- Chicago open Sunday - Friday evening
- Expertise in equity indexes, interest rates, and commodities

Charlotte and Los Angeles Desks*

- Open Monday – Friday, 6:30 a.m. to 6:00 p.m. Eastern time
- Ability to execute across all asset classes
- Interest rates & equity index specialists

*Most office locations are not associated with the firm's FCM activities

Futures Clearing Services

We provide clearing services for the following global futures exchanges¹

Americas	EMEA
<ul style="list-style-type: none">▪ CBOE Futures Exchange(CFE)▪ Chicago Board of Trade▪ Chicago Mercantile Exchange▪ COMEX▪ ICE Futures Canada▪ ICE Futures US▪ MexDer▪ Minneapolis Grain Exchange▪ Montreal Exchange▪ NASDAQ Futures (NFX)▪ NODAL Exchange▪ NYMEX▪ One Chicago	<ul style="list-style-type: none">▪ Dubai Mercantile Exchange Amsterdam▪ EUREX▪ ICE Futures Europe▪ IDEM▪ LCH Freight▪ LME²▪ MEFF RV▪ NASDAQ OMX Nordic Derivatives▪ NYSE Euronext LIFFE▪ NYSE Euronext LIFFE Brussels▪ NYSE Euronext LIFFE Paris▪ South African Futures Exchange▪ Turkey Derivatives▪ Vienna Derivatives▪ Warsaw Derivatives
APAC	
<ul style="list-style-type: none">▪ Bursa Malaysia▪ Hong Kong Futures Exchange▪ Korea Futures Exchange²▪ Osaka Securities Exchange▪ Singapore Futures Exchange	<ul style="list-style-type: none">▪ Sydney Futures Exchange▪ Taiwan Futures Exchange▪ Thailand Futures Exchange▪ Tokyo Commodity Exchange▪ Tokyo Financial Exchange

¹Access to global clearing houses is provided either through direct memberships or through third-party carrying brokers.

²Additional on-boarding tasks are required to clear this market.

Wells Fargo Global Exchange Traded Services leverages the safety and soundness of Wells Fargo’s brand, our high touch customer service model, versatile technology, and experienced staff.

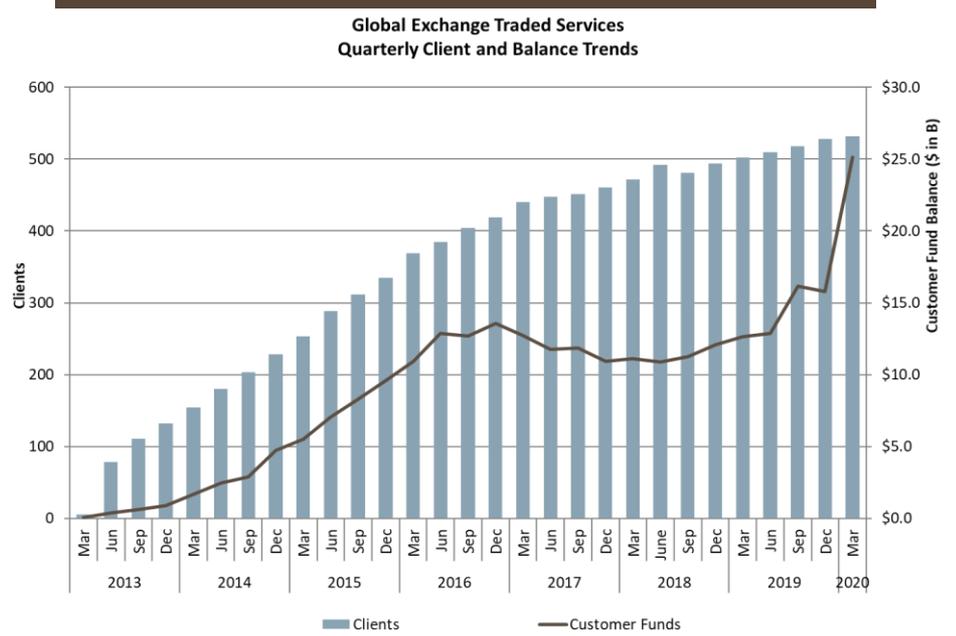
FCMs Ranked by Customer Funds

Rank	Futures Commission Merchant	Total Client Funds (\$ in BN) ¹	% Market Share
1	JP MORGAN SECURITIES LLC	72.11	14.38%
2	MORGAN STANLEY & CO LLC	66.09	13.18%
3	CITIGROUP GLOBAL MARKETS INC	63.14	12.59%
4	GOLDMAN SACHS & CO LLC	62.86	12.54%
5	MERRIL combined	49.68	9.91%
6	CREDIT SUISSE SECURITIES (USA) LI	30.26	6.04%
7	SG AMERICAS SECURITIES LLC	25.65	5.12%
8	WELLS FARGO SECURITIES LLC	25.11	5.01%
9	BARCLAYS CAPITAL INC	22.39	4.47%
10	UBS combined	12.23	2.44%
11	MIZUHO SECURITIES USA LLC	7.21	1.44%
12	INTERACTIVE BROKERS LLC	7.03	1.40%
13	BNP PARIBAS SECURITIES CORP	6.55	1.31%
14	HSBC SECURITIES USA INC	6.48	1.29%
15	DEUTSCHE BANK SECURITIES INC	5.98	1.19%
16	ADM INVESTOR SERVICES INC	5.10	1.02%
17	RJ OBRIEN ASSOCIATES LLC	5.01	1.00%
18	RBC CAPITAL MARKETS LLC	4.80	0.96%
19	ABN AMRO CLEARING CHICAGO LLC	4.31	0.86%
20	MACQUARIE FUTURES USA LLC	3.01	0.60%

Source: CFTC.gov as of March 2020

WFS Total Customer Funds balance is \$25.11Bn

Client Relationship Comparison to Fund Balance



The FCM has on boarded over **532 relationships and 9,761 accounts** across the following client types²:

- Fund Managers/CTAs: 20 %
- Banks/Broker Dealers/GSEs: 25%
- Food & Ag: 12%
- Insurance Companies: 5%
- REIT/Mortgage Fund: 4%
- Energy & Power: 6%
- Asset Managers: 6%
- Other: 22%

¹Dollar total is a combination of secured, sequestered, and segregated funds

² As of March 2020

Competitive Analysis

- Wells Fargo Securities increased 98.83% YoY (\$12.63B in March 2019 vs. \$25.11B in March 2020). Wells Fargo became the 8th largest overall industry clearer. This was primarily driven by increased margin rates at CCP's. As volatility normalizes over the next quarter these balances are expected to return closer to traditional norms.
- WFS leverage ratio increased to 2.90% (1.51% in March 2019).
- Wells Fargo Securities adjusted Net Capital increased slightly to \$8.67B (vs. \$8.35B in March 2019).
- Wells Fargo became the 4th largest OTC clearing provider with \$16.46B in March.

FCM Competitive Landscape March 2020

Rank by Client Funds	Futures Commission Merchant / Retail Foreign Exchange Dealer	Adjusted Net Capital	Excess Net Capital	OTC Client Funds	Futures Seg Client Funds	Futures Secured Client Funds	Total Client Funds*	Gain/Loss Market Share Q1 2020 Vs. Q1 2019	Total OTC Market Share	Total Futures Market Share	Total Market Share	OTC % of Total Client Funds	Total Client Funds/Adj Net Capital
1	JP MORGAN SECURITIESLLC	17.29	11.34	21.35	43.35	7.40	72.11	78.16%	13.24%	14.92%	14.38%	29.61%	4.17
2	MORGAN STANLEY & CO LLC	10.89	6.62	30.33	28.06	7.70	66.09	69.51%	18.81%	10.52%	13.18%	45.89%	6.07
3	CITIGROUP GLOBAL MARKETS INC	6.77	2.59	38.62	18.73	5.79	63.14	58.63%	23.95%	7.21%	12.59%	61.17%	9.33
4	GOLDMAN SACHS & CO LLC	18.66	14.26	10.52	41.57	10.76	62.86	65.87%	6.53%	15.39%	12.54%	16.74%	3.37
5	MERRIL combined	17.96	13.54	12.68	30.56	6.43	49.68	57.22%	7.87%	10.88%	9.91%	25.53%	2.77
6	CREDIT SUISSE SECURITIES (USA) LLC	7.70	5.65	14.99	9.75	5.52	30.26	39.58%	9.30%	4.49%	6.04%	49.54%	3.93
7	SG AMERICAS SECURITIESLLC	4.32	2.55	1.11	17.65	6.90	25.65	21.64%	0.69%	7.22%	5.12%	4.31%	5.94
8	WELLS FARGO SECURITIESLLC	8.67	6.94	16.46	7.47	1.18	25.11	98.83%	10.20%	2.55%	5.01%	65.53%	2.90
9	BARCLAYS CAPITAL INC	5.10	3.54	9.52	10.06	2.81	22.39	43.43%	5.90%	3.78%	4.47%	42.52%	4.39
10	UBS combined	6.02	5.01	1.23	9.41	1.59	12.23	41.57%	0.76%	3.24%	2.44%	10.04%	2.03
11	MIZUHO SECURITIES USA LLC	0.91	0.53	0.02	6.14	1.05	7.21	81.06%	0.01%	2.11%	1.44%	0.30%	7.97
12	INTERACTIVE BROKERS LLC	5.14	4.79	0.00	6.35	0.67	7.03	57.34%	0.00%	2.07%	1.40%	0.00%	1.37
13	BNP PARIBAS SECURITIESCORP	1.99	1.22	1.77	4.54	0.23	6.55	56.80%	1.10%	1.40%	1.31%	27.09%	3.29
14	HSBC SECURITIES USA INC	1.47	0.94	1.43	4.70	0.35	6.48	90.47%	0.89%	1.49%	1.29%	22.06%	4.39
15	DEUTSCHE BANK SECURITIES INC	7.34	6.93	0.00	5.10	0.88	5.98	85.81%	0.00%	1.76%	1.19%	0.00%	0.81
16	ADM INVESTOR SERVICES INC	0.33	0.12	0.01	4.78	0.31	5.10	10.22%	0.01%	1.50%	1.02%	0.19%	15.23
17	RJ OBRIEN ASSOCIATES LLC	0.26	0.05	0.00	4.83	0.18	5.01	22.45%	0.00%	1.47%	1.00%	0.00%	19.40
18	RBC CAPITAL MARKETS LLC	1.89	1.52	1.19	3.24	0.37	4.80	50.12%	0.74%	1.06%	0.96%	24.85%	2.54
19	ABN AMRO CLEARING CHICAGO LLC	0.84	0.60	0.00	4.18	0.13	4.31	60.29%	0.00%	1.27%	0.86%	0.00%	5.14
20	MACQUARIE FUTURES USALLC	0.29	0.06	0.02	2.93	0.05	3.01	28.56%	0.01%	0.88%	0.60%	0.75%	10.56
Totals		133.21	96.96	161.27	279.11	60.97	501.35	57.32%				22.39%	

Notable industry changes:

- Industry total client funds increased by 184.86B (58.41%) YoY to \$501.35B, with an \$57.429B (55.3%) increase in OTC client funds and an \$127.438B (59.93%) increase in Futures client funds.
- The top 20 competitors were up overall, YoY, by 57.32%.
- The % of OTC to Total Client Funds decreased YoY, from 22.59% in March 2019 to 22.39% in March 2020.
- 13 FCMs have OTC Client Funds greater than \$1B.

* Dollar total is a combination of secured, sequestered, and segregated funds

Source: <https://www.cftc.gov/MarketReports/financialfcmdata/index.htm>

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