

### **CMC MARKETS CFD DIRECT EXECUTION VENUES**

# **BARCLAYS**

In accordance with CMC's internal counterparty selection policies and procedures, Orders relating to single stock CFDs and CFD forwards will be routed to Barclays' smart order routers for execution on their chosen venues, which may include third party brokers who may provide liquidity or access these or other venues on Barclays' behalf.

EME securities	American securities	Asian securities
Athens Stock Exchange	Aequitas	Australia
Bolsa de Madrid	Aqua	- Australia Stock Exchange
Borsa Istanbul	Bats BYX	(ASX)(Primary Exchange)
Borsa Italiana	Bats BZX	- Chi-X Australia
Budapest Stock Exchange	Bats EDGA	Bursa Malaysia (KLSE)
Cboe BXE	Bats EDGX	China-Hong Kong Stock Connect
Cboe CXE	Bats EDGX	- Shanghai Stock Exchange
Euronext Amsterdam	BIDS	(SSE)
Euronext Brussels	Blockcross	- Shenzhen Stock Exchange
Euronext Lisbon	BOX Options	(SZSE)
Euronext Paris	C2	Hong Kong Stock Exchange
Irish Stock Exchange	CBOE	(SEHK)
ITG Posit	Chicago Stock Exchange Chi-X (ATS)	Indonesia Stock Exchange (IDX)
Jo'burg Stock Exchange London Stock Exchange	Citadel Connect	Japan - Tokyo Stock Exchange (TSE)
LX Europe	Citicross	- Tokyo Stock Exchange (TSE) (Primary Exchange)
NASDAQ OMX Copenhagen	CODA Markets	- Chi-X Japan
NASDAQ OMX Helsinki	CS CrossFinder	- SBI Japannext
NASDAQ OMX Stockholm	DB Super-X	- Instinet CBX
Oslo Bors	IEX	Korea Exchange (KRX)
Prague Stock Exchange	Instinet CBX	New Zealand Exchange (NZE)
Sigma X MTF	ITG Posit	Singapore Exchange (SGX)
SIX Swiss Exchange	Fidelity CrossStream	Taiwan Stock Exchange (TWSE)
Tel-Aviv Stock Exchange	LeveL	Thailand Stock Exchange (SET)
Turquoise	Lynx (ATS)	3 ( ,
UBS MTF	LX	
Warsaw Stock Exchange	MIAX Tokyo Stock Exchange	
Wiener Borse	MIAX Pearl	
Xetra	MS Pool	
	Nasdaq	
	Nasdaq BX	
	Nasdaq BX Options	
	Nasdaq GEMX Nasdaq ISE	
	Nasdaq MRX	
	Nasdaq PSX	
	Nasdaq PHLX	
	NYSE	
	NYSE American	
	NYSE Arca	
	NYSE Arca Options	
	NYSE American Options	
	NYSE National	
	Options Market (NOM)	
	Tel-Aviv Stock Exchange	
	Turquoise	
	Two Sigma Securities	
	EMEA Americas APAC	
	UBS MTF	
	Xetra	
	Omega (ATS) Pure (ATS)	
	Toronto	



Virtu Americas VEQ	
Virtu Americas VEQ Virtu MatchIt	

## Barclays' smart order routing technology (SOR) A

Barclays' Dynamic Router is the firm's primary vehicle by which Barclays' electronic orders are placed in the market for execution. When an order is marketable, the Dynamic Router will sweep and source liquidity across displayed, non-displayed Trading Venues and Barclays SI Service, LX Principal, with the general objective of maximising fill rates and minimising information leakage. When an order is not marketable, the Dynamic Router will post the order on displayed venues to maximise spread capture. The Dynamic Router can also be used to route directed orders to specific venues.

Barclays' algorithms employ various techniques to optimise performance, including: For actively trading stocks, stock-specific analytics in the form of volume profiles, average spreads, quote depth and volatility estimates. Dynamic scheduling and volume forecasting in the form of intraday real-time volume adjustments to react to deviation from typical volume profile. "Chase protection" in the form of block exclusion logic for all participation tracking and symbol-specific price information which prevent algorithms from immediately chasing new price levels. Randomisation in terms of the release time of passive and aggressive child order placement, and in terms of child order sizes.



Further detail and the latest information on the steps Barclays takes to deliver best execution for its clients (including CMC Markets) is available at the following links. You should also review this information, as your Trades with us may from time to time be based upon the prices Barclays is able to obtain for or provide to us.

- ▲ Barclays Equities Electronic Order Handling EME/Asia Pacific FAQS the latest version is available at: <a href="https://www.investmentbank.barclays.com/markets/equities-liquid-markets.html#order">https://www.investmentbank.barclays.com/markets/equities-liquid-markets.html#order</a>
- + Barclays' New Smart Order Router FAQs (the latest version is available at: https://www.investmentbank.barclays.com/markets/equities-liquid-markets.html#orde



### **MORGAN STANLEY**

In accordance with CMC's internal counterparty selection policies and procedures, Orders relating to single stock CFDs and CFD forwards are routed to Morgan Stanley's smart order routers for execution on their chosen venues, which may include third party brokers who may provide liquidity or access these or other venues on Morgan Stanley's behalf. Morgan Stanley's algorithms and smart order routers are designed to access internal and/or external sources of liquidity in an attempt to achieve best execution.

The liquidity sources\*\* that Morgan Stanley may access for client orders through its smart order routers are:

- U.S. exchanges (both displayed and non-displayed liquidity);
- FINRA's Alternative Display Facility (ADF) participant(s) (currently no participants);
- internal dark pools (MS POOL, MS Trajectory Cross and MS RPOOL);
- external dark pools (currently BIDS, Instinet CBX, Deutsche Bank SuperX, Fidelity CrossStream, Goldman Sachs Sigma X2, JPM JPM-X, LeveL ATS, Virtu MatchIt and UBS ATS);
- select external liquidity providers;
- MS Automated Liquidity;
- European Regulated Markets (displayed and non-displayed liquidity);
- Multilateral Trading Facilities ("MTFs" displayed and non-displayed liquidity);
- Asian execution venues, including the primary exchange available via MSET and the following "alternative" execution venues: MS Dark Pool (subject to a specific opt-in in respect of Japan), Chi-X, SBI Japannext, Nomura NX, ASX Centre Point (Exchange dark pool), NSE and BSE;
- internal liquidity;
- external Systematic Internalisers (currently Citadel Securities, Jane Street Financial, Tower Research Capital and Sun Trading); and
- other external liquidity sources (currently accesses Cboe Europe BXE dark book, Cboe Europe CXE dark book, ITG Posit, Liquidnet H2O, Nasdaq Nordic@mid, Turquoise Plato continuous, Turquoise Plato Uncross, SwissAtMid, UBS MTF, Turquoise Plato Block Discovery, Cboe Europe LIS, ITG Posit, Cboe Europe Periodic Auction, Nasdaq Auction On Demand and Turquoise Lit Auctions).

Given the variety of means that Morgan Stanley may employ to attempt to achieve best execution, and absent instructions to the contrary, transactions may be executed on an agency, agency cross or principal basis or a combination of these.

Morgan Stanley is directly connected to all U.S. exchanges and all major European exchanges. Certain venues offer cash credits for orders that provide liquidity to their books and charge explicit fees for orders that extract liquidity from their books (and certain venues invert this practice). The amount of credits that Morgan Stanley receives from one or more venues may exceed the amount that Morgan Stanley is charged. Morgan Stanley may also receive incremental pricing benefits from venues if certain volume thresholds are met.

Morgan Stanley provides the actual execution venue on fills. However, with respect to routable orders sent to the exchanges, if routed by the initial exchange to another exchange for execution, the actual executing exchange may not be passed back on the fill by the initial exchange.

# Morgan Stanley smart order routing technology (SORT)\*

Further detail and the latest information on the steps Morgan Stanley takes to deliver best execution for its clients (including CMC Markets) is available at the following links. You should also review this information, as your Trades with us may from time to time be based upon the prices Morgan Stanley is able to obtain for or provide to us.\*Morgan Stanley U.S. equity order handling and routing FAQs (the latest version is available at <a href="https://www.morganstanley.com/disclosures">https://www.morganstanley.com/disclosures</a>)

≠Morgan Stanley EMEA equity order handling and routing FAQs (the latest version is available at <a href="https://www.morganstanley.com/disclosures">https://www.morganstanley.com/disclosures</a>)