

# HSBC FX Volume-Weighted Average Price (VWAP) Algorithm

## Innovative Access to HSBC's Unique Network of FX Liquidity



### What the Algorithm aims to achieve

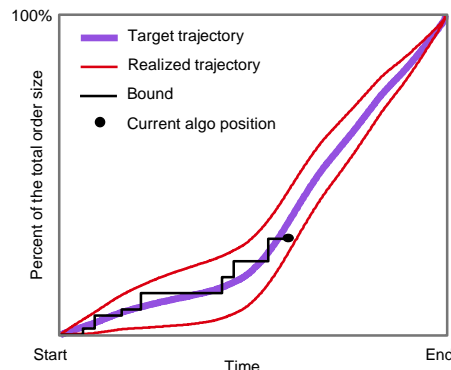
The HSBC FX Volume-Weighted Average Price (VWAP) Algorithm aims to trade along a target execution trajectory derived from the historical average primary market volume profile. The Algorithm is therefore expected to achieve an average fill price close to the primary market volume-weighted average mid price observed during the trading period of the order. The Algorithm breaks up the total Order Size into smaller slices and places them through time across HSBC's unique network of FX Liquidity Pools, with a view to maximising fill probability, minimising transaction costs and reducing market footprint, whilst ensuring the order gets executed at the End Time specified by the client. All volume calculations make use of HSBC's proprietary FX Market Volume Index.

### Specify the following parameters to meet your execution requirements

Trade parameters: ◆ Currency Pair ◆ Execution Currency ◆ Direction ◆ Order Size

#### Algorithm-specific parameters:

Start/End Time
By default, the Algorithm starts immediately and expires at date roll time of the corresponding currency pair (typically 5 pm EST). The client has the option to specify a later Start Time and/or an earlier End Time. In any case, if the order is not completed by the End Time, a partial fill is returned.
Limit Price (optional)
If specified, the Algorithm will consume liquidity at prices no worse than the Limit Price. This may prevent the VWAP algorithm from achieving full completion.
Liquidity Pool
Choose which FX Liquidity Pools (Market and/or HSBC liquidity) to interact with, balancing the trade-off between execution cost and information leakage.
Execution Style
Choose between Passive, Neutral and Aggressive Styles according to your level of market volatility risk aversion.



### Three different Execution Styles for different scenarios

Passive	<ul style="list-style-type: none"><li>◆ Use this Style to tolerate larger deviations from the target execution trajectory allowing greatest flexibility for the Algorithm to vary order slice size executed per unit of time and explore market interest from the passive side</li><li>◆ Expected to cross the spread least frequently amongst the three Styles</li></ul>
Neutral	<ul style="list-style-type: none"><li>◆ Use this Style to articulate deviations from the target execution trajectory in a balanced manner</li></ul>
Aggressive	<ul style="list-style-type: none"><li>◆ Use this Style to strictly adhere to the target execution trajectory, thus reducing the associated volatility risk</li><li>◆ Expected to cross the spread most frequently amongst the three Styles</li></ul>

Amendment: during the execution, you are able to amend the Order Size, End Time, Limit Price, Liquidity Pool or Execution Style should your requirements change.

### Execution risk

The execution risk associated with the use of the HSBC FX Volume-Weighted Average Price Algorithm resides with the client, not HSBC. If a Limit Price is specified and the market price moves considerably or liquidity is insufficient during the execution of the order, the Algorithm may not achieve full completion. Due to uncertainty of legged executions for illiquid currency pairs, there may be market conditions in which HSBC is not able to guarantee the Limit Price on child fills. Execution will ultimately always be liquidity-dependent, eg if the market becomes distressed, the Algorithm may fail to complete the order before the End Time. HSBC may be active in the market with its own orders at the same time of a client order. Although HSBC and client orders are treated independently, they may interact in the market and compete for the same liquidity.

Please contact us for further information: [fxalgo@hsbc.com](mailto:fxalgo@hsbc.com)

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