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Market Chameleon

How to Use Option Order Flow Analysis to Gauge Investor Sentiment

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Option Order Flow Sentiment

Traders can express their views using options on

Volatility

Cost of Carry

Directional

Direction

A buyer of a call option or a seller of a put option is expressing a bullish view and vice versa.

There is always a buyer and a seller to a trade.

What we would like to determine is the customer buying or selling from the dealers.

Think of a dealer as a car dealer that sells and buys cars from customers making a spread.

Dealers try to stay neutral by balancing their book and hedging risk

How do you know if an option is bought or sold

We can make an assumption that the market quote is a dealers price that the dealer is willing to buy and sell (to make the spread) and a trade on the quote is a customer order that takes the market. But this is **not enough**

Example:

Bid	Ask	Trade
1.00	**1.10**	**$1.10**

Assumption is that the customer **bought** the contract

Why is this previous example not enough

The market (bid and ask) can contain both dealer quotes and customer limit orders and trades can also happen in between the quotes.

Example:

Quote		Trade
1.00	1.50	
1.00	1.10	$1.10
1.10	1.60	

In this example it appears that a limit order was put in between the market and dealer scooped the order. So our interpretation is that the customer **sold**.

How does MC interpret bought vs sold

Algorithmically make an interpretation using pre-set rules that take into consideration:

Numerous benchmarks and data

Implied volatility

bid/ask spreads

Surrounding markets

Tick data

Trade conditions

Etc… :

How to quantify bullish and bearish sentiment

Best indication to quantify bullish or bearish sentiment is to convert the order flow volume to delta volume

Option volume and notional volume does not give as clear picture as the delta volume

Ex:

Stock $100

Volume	Strike	Price	Delta
1	50	$51	100
1	200	$0.01	0

Volume is the same but the deep in the money has a much larger delta bias

Second Example Notional Volume

Stock $100

Volume	Strike	Price	Delta
1	25	$76	100
1	50	$51	100

The contracts have the same directional bias even though notional value varies

Delta Volume converts to an equivalent volume in stock

Example:

Buying 10 option calls with a delta of .40 is equivalent to buying 400 shares of stock

(this would be your initial hedge against directional risk)

Aggregating the option volume delta will give us an overall imbalance