🎢 Volatility Explained

Volatility is the key parameter which drives options trading, we unpack it here.

Volatility is a measure of how much something moves. When traders discuss volatility, they're referring to one of:

- The price swings of an asset (market volatility)
- The implied volatility of options (IV)

Historical Volatility

The market volatility of an asset is a result of the observed day to day swings in price. This is volatility that is in the past, and is why we say things like 'crypto is a volatile asset class' and 'bonds are stable, safe yielding assets'. This is referred to as **'historical' or 'realized' volatility**.

With assets, historical volatility is a measure of how much the price changes over a given period of time. If an asset is expected to move 2% per day, and instead moves 10%, it would be referred to as having realized 'high volatility'. Similarly, if an asset normally moves 5% per day, and only moves 2%, it would be realizing 'low volatility'.

Implied Volatility

On the other hand, **implied volatility** is the market's expectation of how much an asset will move, and is reflected in the price of options expiring in the future. This is effectively an estimate - the market can guess that an asset will move 10% over the next month, but it might move 50% (or not at all). An option

with an implied volatility of 50% is saying that the underlying asset is expected to trade within a 50% range (high to low) within the next year.

Continuing our example of a JAG token which trades at $100 and has an IV of 50%. Options markets are therefore implying that JAG could move up or down 50% over the next year, creating an expected range of $50-$150. A good rule of thumb is to take the IV of an asset and divide by 20 to attain the average expected daily move. For example JAG (50% IV) is expected to move 50/20 = 2.5% per day. This means an asset with 20% IV is expected to move 1% per day, and an asset with 100% IV is expected to move 5% per day.