Module 5 – Chapter 7 – Average True Range (ATR)

The Average True Range (ATR) is a technical analysis indicator Designed primarily as a tool to measure market volatility, the ATR offers insights into the historical price movement of a security, independent of its price direction.

What it is and what it shows

The ATR calculates the true range for a given period, which is the greatest of the following:

Current high minus the current low

Absolute value of the current high minus the previous close

Absolute value of the current low minus the previous close

The ATR itself is the moving average of the true ranges over a specified period, typically 14 days.

It's essential to understand that the ATR doesn't provide any indication regarding price direction. Instead, it focuses solely on price volatility. A higher ATR suggests that the price of the security has seen significant price moves in a short amount of time, implying a more volatile market. Conversely, a lower ATR indicates less volatility.

How to trade it

The ATR serves various purposes in trading:

1) **Setting Stop Losses:** One of the most common uses of ATR in trading strategies is to determine stop-loss levels. A trader might set a stop loss at a multiple of the current ATR value away from the entry price. For example, if a stock is purchased at $50 and the ATR is $2, a trader might place a stop-loss order at $46 (2 x ATR below the purchase price).

2) **Position Sizing:** ATR can also assist in determining position size. If a trader decides they're willing to risk a certain amount per share, the ATR can help dictate how many shares to buy.

3) **Breakout Trades**: A rising ATR in conjunction with a price breakout can be a sign of the start of a significant trend. For instance, if a stock breaks above a key resistance level and the ATR is rising, it might signify strong buying interest and a powerful upward move.

4) **Filtering Out Noise**: In less volatile markets, minor price fluctuations can be misleading. Using ATR can help traders distinguish between genuine trend shifts and minor price noise.

5) **Volatility-based Trading Systems:** Some traders design entire systems around volatility, using the ATR as a key component. For example, a system might go long when prices are above a moving average and the ATR is rising, indicating increasing volatility in an upward trend.

In conclusion, while the Average True Range doesn't provide directional clues, it offers invaluable insights into market volatility. This understanding can be instrumental in creating robust trading strategies that account for the inherent risks associated with price movements. Properly used, the ATR can help traders place smarter stop losses, size positions appropriately, and detect genuine trend breakouts.