Case Study: Beginning to Think Probabilistically with CAD Essentials

Introduction

Context Analysis Dashboard (CAD) Essentials provides traders with a powerful way to analyze market probabilities. This case study demonstrates how to start thinking probabilistically using the platform's core features, focusing on a practical example that new traders can easily follow.

Getting Started with CAD Essentials

Before diving into analysis, take these preliminary steps:

1. Read the tool tips for each feature to understand what the data represents
2. Examine the probability analyses for the unfiltered dataset to establish baselines

A Practical Example: Gap Close Analysis

Understanding the Baseline

The unfiltered dataset reveals an important starting point:

▶ Overall probability of the opening gap closing: **~61%**

▶ Confidence interval: **59% to 63%**

Key Insight: Most traders stop here and assume all scenarios express this same probability distribution. As price action traders know, context determines the actual probability distribution.

Analyzing the Distribution of Gap Sizes

When reviewing the range of opening gap sizes (0% to 362% of the average daily range for the last 20 days), we can make initial assumptions:

▶   Smaller gaps will close at a higher frequency

▶   Larger gaps will close at a lower frequency

▶   Middle-range gaps are influenced by additional contextual factors

Using the Interquartile Range (IQR) for Calibration

The IQR shows that the middle 50% of all data represents opening gaps between **13%** and **50%**. This helps calibrate expectations for what constitutes large versus small gaps.

Applying Filters to Discover Statistical Edges

When we apply specific filters, the probability landscape changes dramatically:

Gap Size Filter	Direction	Close Probability	Comparison to Baseline
-13% to +13%	Both	92%	+31% above baseline
-50% to -13%	Bear Gaps	67%	+6% above baseline
+13% to +50%	Bull Gaps	59%	-2% below baseline
< -50%	Bear Gaps	31%	-30% below baseline
> +50%	Bull Gaps	26%	-35% below baseline

Application to Trading

After completing this preliminary analysis understanding the relationship between just these two features (gap size and gap close probability), price action traders can:

1. Return to their charts with a more informed perspective

2. Organize a meaningful study of opening gaps

3. Analyze the corresponding distribution of probabilities that evolve during the trading session

4. Develop strategies based on statistically significant edges

Key Takeaways

▶   CAD Essentials helps traders move beyond simplistic probability assumptions

▶   Even analyzing just two related features can reveal significant statistical edges

▶   Understanding probability distributions in different contexts is essential for developing reliable trading strategies

▶   Start with simple relationships before building more complex multi-factor analyses