Probability Analytics and Transactions Costs in the Era of Event Risk

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Investment advice is neither given nor intended

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All examples in this presentation are hypothetical interpretations of situations and are used for explanation purposes only.

This report and the information herein should not be considered investment advice or the results of actual market experience.
Brexit: Price and Volume (CME) of British Pound on 24 June 2016
Pre-Brexit Vote: USD per GBP
Expected Probability Distribution

$1.52/£

$1.32/£
E-mini S&P500, Night of US Election (Nov 8-9)

- CME Group Record Daily Volume
- CME Group Record Overnight Daily Volume
Current S&P500® Expected Return: Implied Volatility vs Enhanced Risk Analysis

Normal Distribution based on Options Implied Volatility

Enhanced Asymmetrical Distribution based on Market Dynamics

Source: CME Group Data Science Team.
Probability Analysis Comparison (Current):
Over and Under Estimation

Too confident market will remain in a tight range

Under-estimation of downside risks
Under-estimation of upside potential

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December E-Mini S&P 500 Futures (ESZ6)
Nov 8, 2016  9PM-Midnight CT
Cost to Trade 100 Lots

- Aggressing Buyer
- Aggressing Seller

- Upper Quartile
- Median
- Lower Quartile
December E-Mini S&P 500 Futures (ESZ6)
Nov 8, 2016 9PM-Midnight CT
Cost to Trade 100 Lots

- Upper Quartile
- Median
- Lower Quartile

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December E-Mini S&P 500 Futures (ESZ6)
Nov 9, 2016 9AM-Noon CT
Cost to Trade 100 Lots
December E-Mini S&P 500 Futures (ESZ6)
Nov 9, 2016 9AM-Noon CT
Cost to Trade 100 Lots

Cost To Trade (Ticks)

Upper Quartile
Median
Lower Quartile

09:00 09:30 10:00 10:30 11:00 11:30 12:00
Thank you