



# ICE Futures Exchanges

Risk Controls – TAC

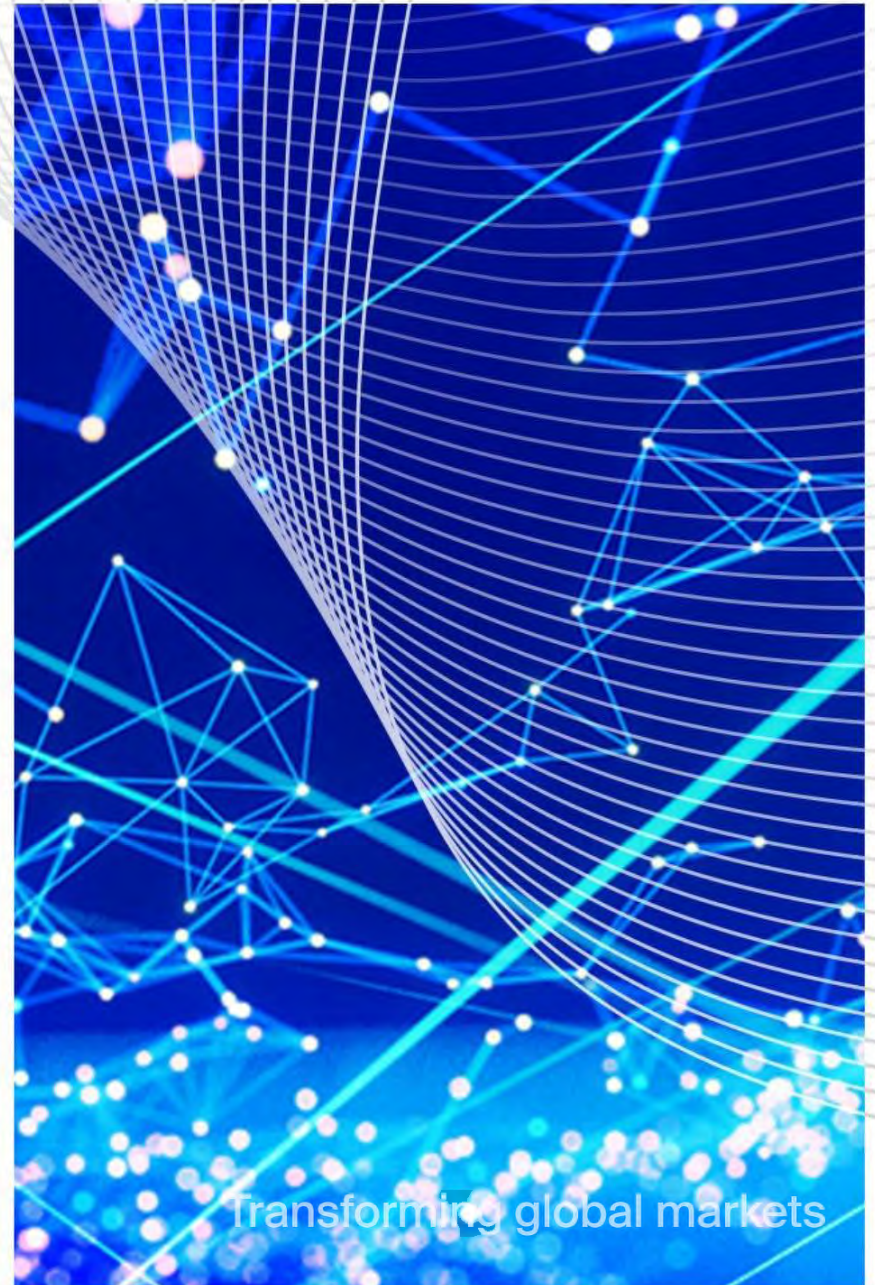
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CTO, Intercontinental Exchange

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ICE Confidential

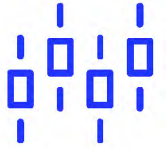


transforming global markets

# Risk Controls Philosophy

- Controls are applicable across all ICE Exchanges (IFEU, IFUS, IFED, NDEX) covering all futures and options products
- Prevention pre-trade along with post trade detection and mitigation
- Real time management of risk with drop copies and market data
- Granular control at different levels of aggregation (User, Account, Desk, Company)
- Tighter integration with third party and in-house risk systems
- Front End Tools and API for more visibility, alerting and monitoring

# Market Controls



## Price Protection on Orders

- Price banding or collars that warn and reject orders that are outside the band of current market value

## Interval Price Limit (IPL aka Circuit Breaker)

- Orderly trading when there are large price moves in a short period of time

## No Cancellation Range (NCR)

- All trades outside this range are reviewed by ICE Operations

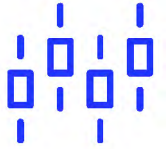
## Message Throttle Limits

- Prevent mal-functioning software from overwhelming the market

## Cancel on Disconnect

- Auto cancellation of open orders upon session disconnect or loss of heartbeat

# Clearing Member Managed Controls



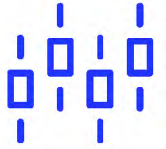
## Limits by Product Group (Pre-Trade)

- Order Clip Size Limit
- Working Order Limit
- Net Position Limit
- Absolute Long/Short Limit
- Off Exchange Trade Clip Size Limit (Nov 2019)
- Granular control to manage limits within product group (Q1 2020)

## \$-based margin limits (Post-Trade)

- Account
- Group of Accounts (Nov 2019)
- Trading Firm (Q1 2020)

# Trading Firm Managed Controls



## Self Match Prevention

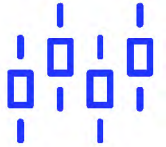
(by company/user/account or group [desk])

- Prevents users from a given company or desk from trading with each other

## Option Risk Protection

- **Volume Based**
  - Total quantity threshold breach, within a product, in a set timeframe.
- **Delta Based**
  - Adjusted net futures volume threshold breach in a set timeframe
- **Cumulative %**
  - Cumulative % of all quotes traded, within a product in respect to their quote size, in a set timeframe

# Detection & Mitigation



## Kill Switches

- Ability to kill user sessions, withdraw orders, disable accounts or change limits in real time
- Quickly switch off product(s) across multiple accounts and Firms (Q1 2020)

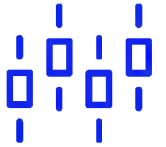
## FIX API

- Risk Management
- Order and Trade Drop Copies

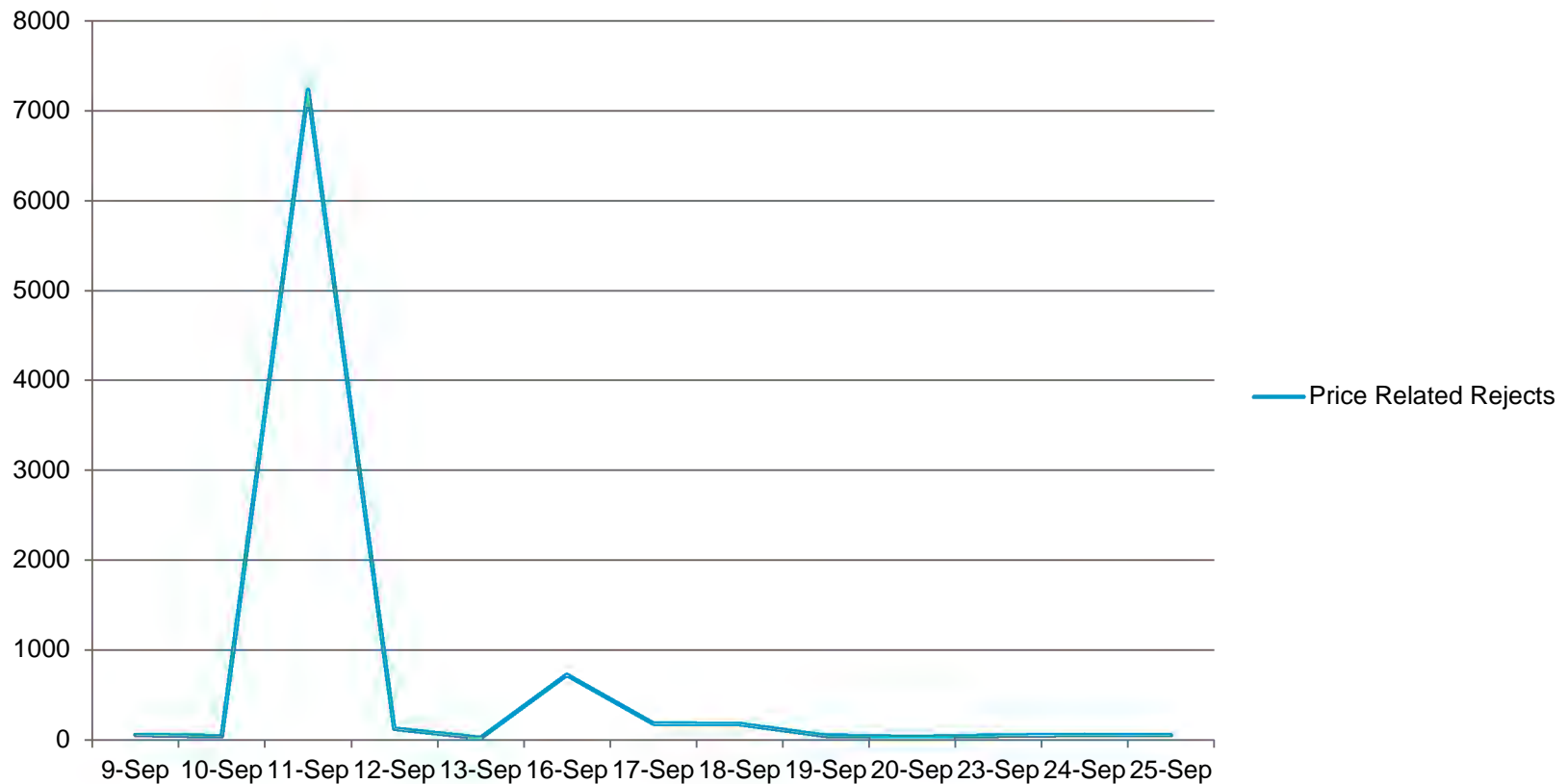
## Breach Alerts (Email notifications)

- Clip Size Limit
- Intraday Trade and Position Limit
- Price Protection Rejects
- Option Risk Control Activation
- Message Throttling Limit
- Self Trade Detection
- Margin limit breaches at various configured levels (Nov 2019)

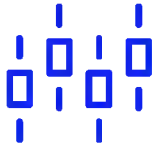
# Saudi Bombing Event



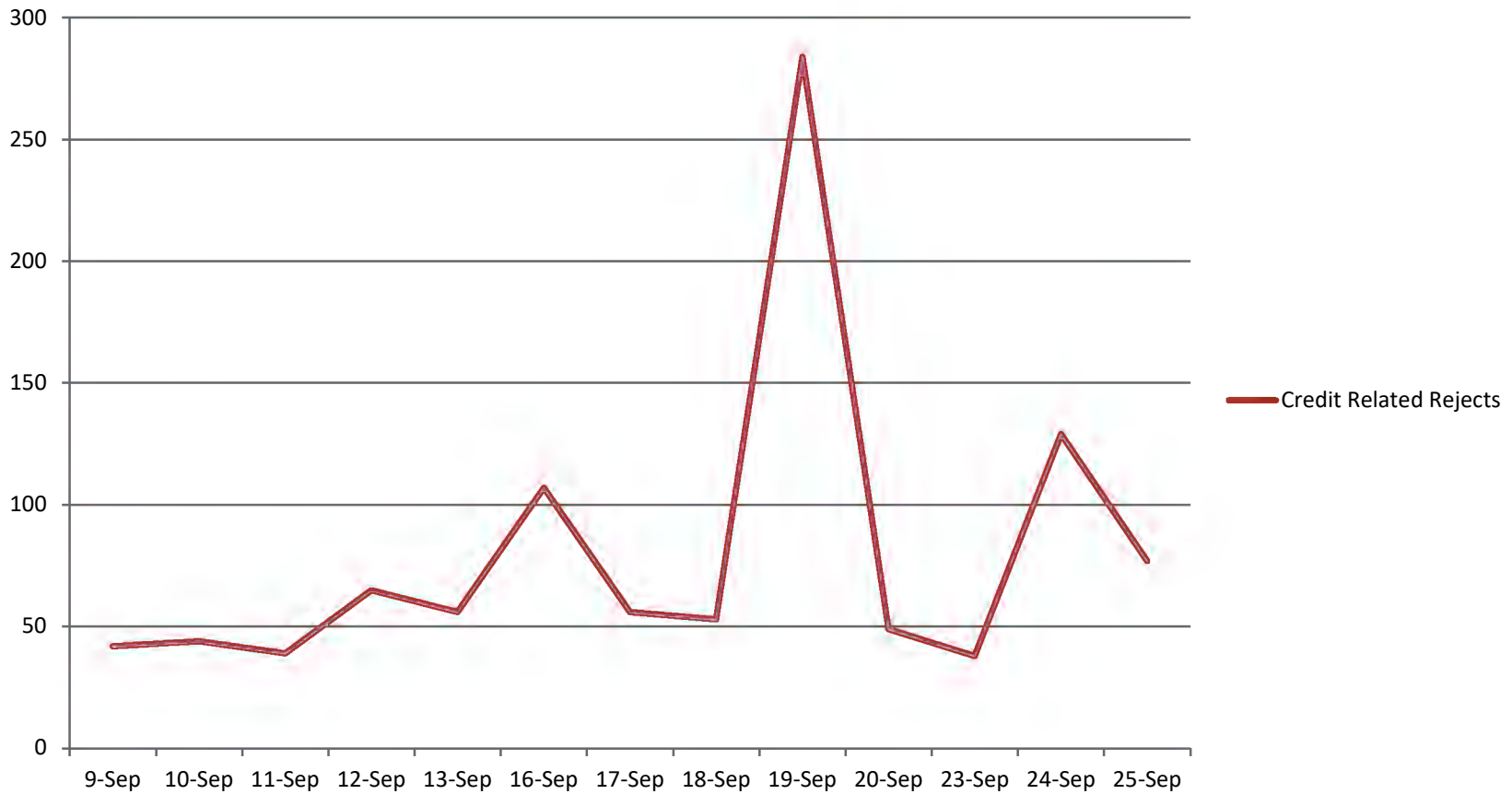
## Brent Crude Futures: Orders Rejected Due to Price Controls



# Saudi Bombing Event

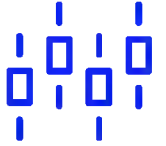


## Brent Crude Options: Rejects due to credit controls

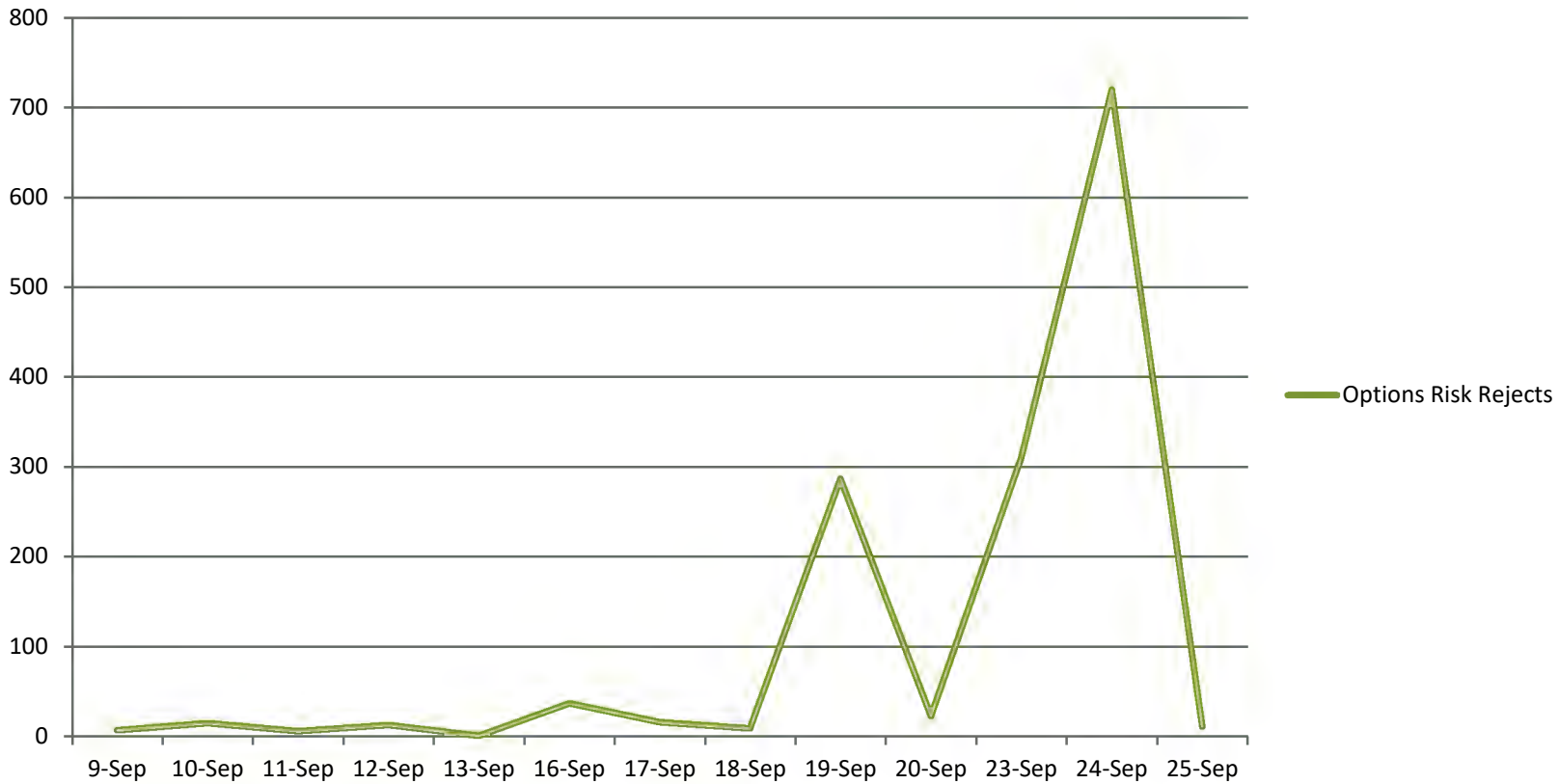




# Saudi Bombing Event



## Brent Crude Options: Rejects due to risk controls





# Questions?