**Fed Account Analysis Proposal**

* **Overview: To better understand Fed Account** **volatility and measure cash position**
* **Data Source: Daily Fed Account Ending Balance (DataMart), Inflow and Outflow (Crystal Server) and FED Balance excel (CLD)**

**1. Intraday Flow and Potential Funding Needs Analysis**

* Overnight and Day Shift Flow Direction
* Inflow, Outflow and Net Flow Percentile (Funding Needs)
* Inflow and Outflow Correlation and Mismatch(T-1, +0, +1)
* Potential Intraday Liquidity Risk (Valley point)

*Note: Use intraday net flow and funding gap at first percentile to estimate Funding Needs under stressed and severely stressed scenario*

**2. Stable and Volatile Balance Segment**

* Functions: Core Transactional Cash, Operational Liquidity Buffer and Strategic Cash Reserve
* Likelihood of Runoff: Lowest, Moderate and Highest (Liquidity Behavior)
* Potential Investment Opportunity (Peak point)
  + Available funding is identified by surpassing balance threshold ($25Bn)
  + Investment horizon is determined by surplus duration(14 days or 30 days)

*Note: Assume normal distribution for Fed Account and use confidence interval (standard deviation) to segment Balance.*

**3. Historical Analysis**

* Trend Analysis (Balance)
  + Daily and Monthly Balance Regression Line
  + Calculated R^2 and compare it with a threshold (0.6)
* Seasonality Analysis (Net Flow)
  + Frequency and Amount of Net Flows
  + Day of the Week / Week of the Month

*Note: The trend analysis visually demonstrates if there is evidence that balances follow along a trend line.*

*The seasonality analysis attempts to find out whether a pattern exists either in terms of days of the week or week of the month.*

**Future Enhancement - Balance and Flow Forecast**

* Support and Resistance Levels (Technical Analysis)
* Mean Reversion Models