Business Opportunity & Challenge

As a bank, we are always interested in learning how we can leverage advanced analytics and AI for better outcomes and lower risks to our customers. In managing investment portfolios, the ability to detect early signals of intent and interest is extremely valuable for traders to establish investment positions ahead of emerging trends in the marketplace.

PROBLEM: What we are looking to create is the “Billboard Top 100” for Canadian equities where we can see what stocks and sectors are trending with the intent of discovering the next big trend before it starts. This is akin to discovering new music that’s making its way to the top of the charts. This would apply to stocks and equity sectors.

DATA:
1. Public. Daily Canadian stock prices, splits, and dividends and sector-based classification. This is publicly available. This may also include twitter feeds and any other alternative public dataset available. Alternative data might contain footprints of market interest (not necessarily captured in trading data) which precedes observations of market intent (partly captured in the trading data).
   - Unstructured sources of alternative data might include the twitter feeds of investment analysts or scraping news sites and online forums for investor or marketplace sentiment.
   - Structured sources of alternative data might include government economic data (e.g. rates, yields, labor/industry stats, pricing indexes, etc).
2. Non-public. Scotiabank to provide limited subset of a large historical dataset of security trades recorded at the individual transaction level (tick data)
3. Proprietary. Scotiabank to provide block trades involving exchanges of large institutions. In addition, we are also free to leverage any other publically available dataset which might provide additional signals, insights, and/or predictive value - assuming collection of this additional data in useable form is feasible.

We envision the challenge of realizing the full opportunity at three levels:

Level I challenge: Descriptive. Capture the trends and with a strong alignment to the past. Be able to rank order what is important from what is not. This level might also capture patterns of interest. This level might also try and infer the nature of the trading occurring in the market, whether retail or institutional flow, or a whale moving the market.

Level II challenge: Predictive. Building on Level I provide predictive analytics on trends persisting, continuing, getting stronger, getting weaker, changing, etc.

Level III challenge: Prescriptive. Building on Level II prescribe which trends to buy, sell, avoid, etc.

All levels have some aspect of creating the right training, testing, and validation methods to prove value of the solution