**Detect bubbles before they burst.**

The goal is to look at past bubbles and distinguish them from regular periods in the market. We then compare those patterns with the current stock market to analyze similarities.

*What features describe bubbles in the stock market?*

* Analyze the different stock and sector parameters (price acceleration, volatility, trading volume, valuation ratios) during these known bubble periods (dot-com, Japan, China), then we compare them to regular period, and identify which parameter could be a key feature .

*Are the bubble features the same in every sector?*

* Separate the different sectors in the stock market during those periods, then compare the key features and see if they are specific to a sector.

*Does the “Boom” in AI have a bubble-like behavior?*

* We look into the recent AI-driven stocks and compare them with the key bubble features; we assess if there are some similarities.

**Analyze how the market entry mechanism influences stock performance.**

The goal is to look at how stocks perform after their entry into the stock market and observe if it is related to their entry mechanism by comparing similar stocks.

*Do companies that entered the stock market via different mechanisms show distinct stock performance patterns?*

* Classify the stocks based on their entry mechanism (IPOs, SPACs, direct listings), compare the different stocks performances and behavior over time.

*Are some sectors more sensitive to the entry mechanism?*

* Compare the performances of stocks with the same entry mechanism in different sectors such as tech, healthcare, and energy and observe if their behavior and performances are significantly different.

*Does the entry mechanism influence volatility and investor confidence?*

* Analyze the stock volatility and the trading activity after the different entry mechanism for similar stocks.

**Analyze the behavior of the different sectors across international stock markets.**

The goal is to look into the behavior of sectors across markets and observe if sectors are correlated across regions and if some markets lead certain sectors.

*Is there a correlation between different sectors across the world?*

* Group the sectors (tech, energy, healthcare, finance, …) in the different markets (US, Europe, Asia) then compare their volatility and growth to assess which sectors are correlated.

*Do sectors behave differently during crisis across the world?*

* Group the sectors in the different markets and focus on their performance during global crises, compare the reactions across markets, then assess if reactions are specific to each region or global.

*Is there a leading market in each sector?*

* Group the sectors in the different markets and examine lead–lag dynamics, if one market reaction will drive the others, conclude if in each sector there is a leading market.

In order to increase the viability of those ideas it would be needed to add recent stock market data from 2021-2025 since the provided dataset ends in 2020. We also add other market datasets. We would also need to get the different sectors of the stocks and their mechanism of entry.