Governance through Shame and Aspiration: Index Creation and Corporate Behavior

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Objective and Approach

- Measure the reaction of firms to a purely "symbolic" incentive: Belonging to the JPX 400 index.
- Incentives to improve performance in the margin, in order to make it to the index.
- Effect of belonging to the index itself

Results

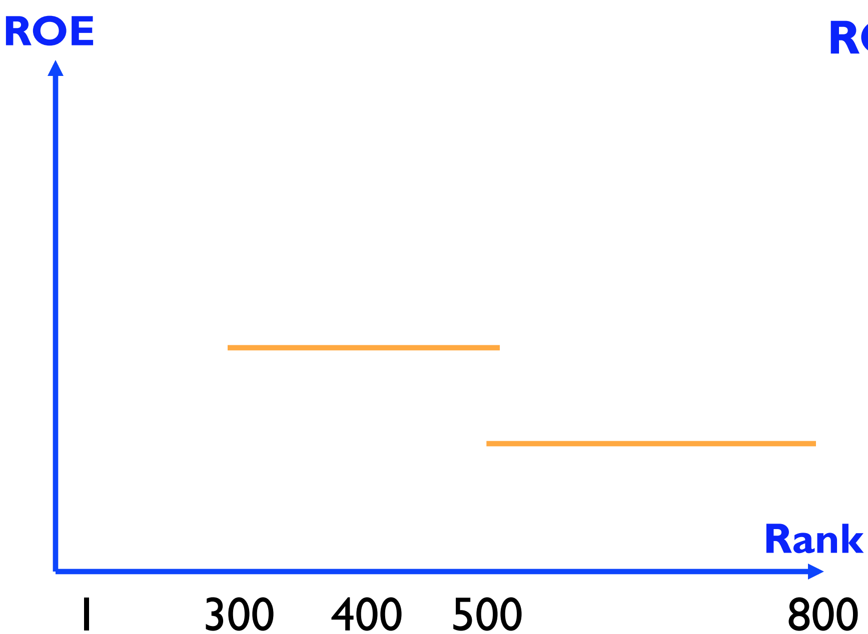
- Incentives: Firms close to index inclusion improve their ROE relative to other firms.
- Ex-post effects: No short term effect of the inclusion per se beyond the incentive effect
- Heterogeneous effects: Firms with more slack and those that have most to loose (Nikkei 225) react the most to the incentives.

Main Intuition

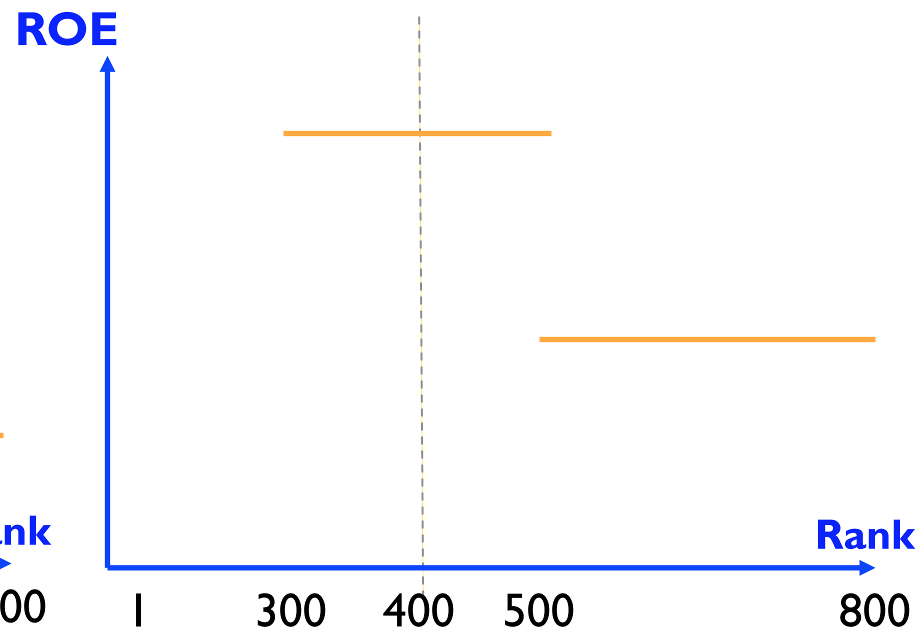
Total Score = 0.4 ROE Rank + 0.4 Op Profit Rank+ 0.2 MCap Rank

Belong to JPX400 if Total Score Rank < 400

Before JPX 400



After JPX 400



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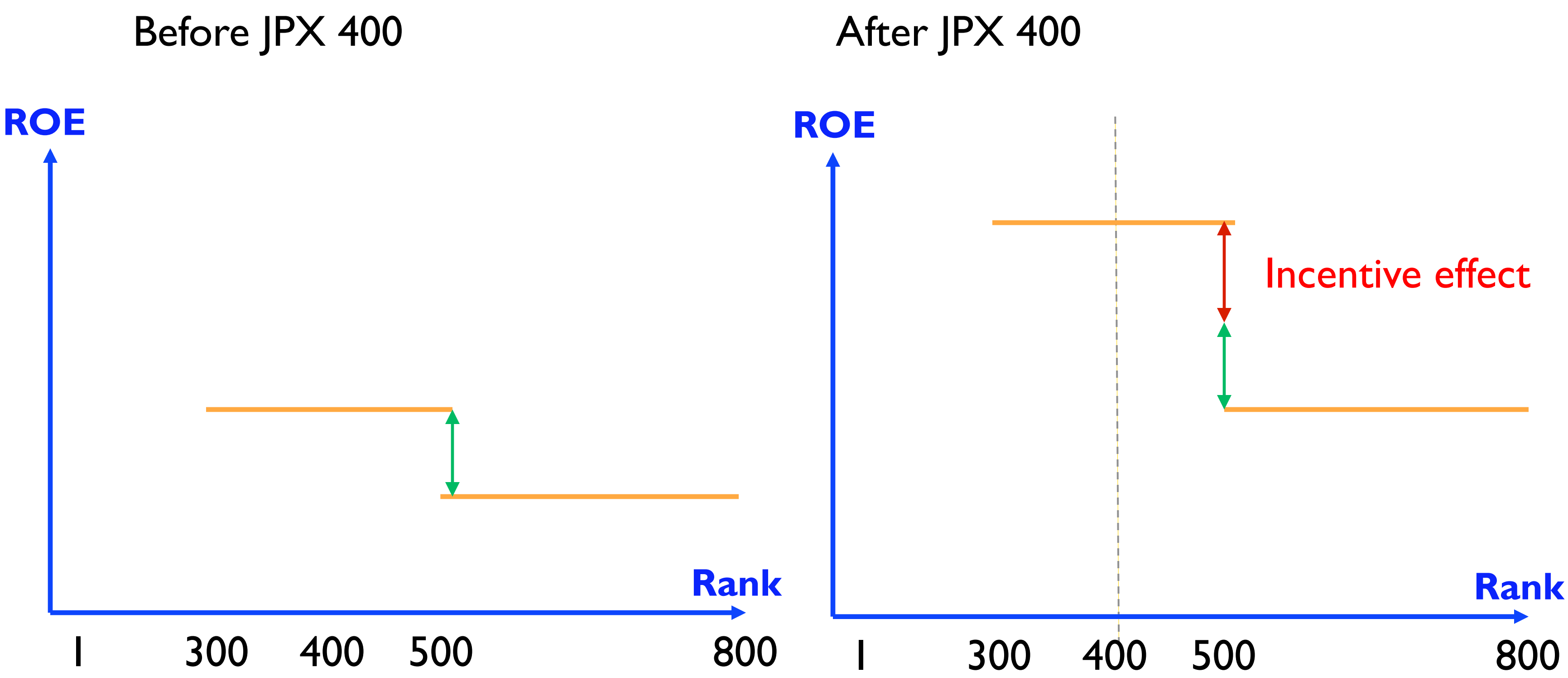

Properties of the index rank

Total Score = 0.4 ROE Rank + 0.4 Op Profit Rank+ 0.2 MCap Rank

Properties of the index rank

Total Score = 0.4 ROE Rank + 0.4 (Op ROE * MCap) Rank+ 0.2 MCap Rank

Op Profit

Properties of the index rank

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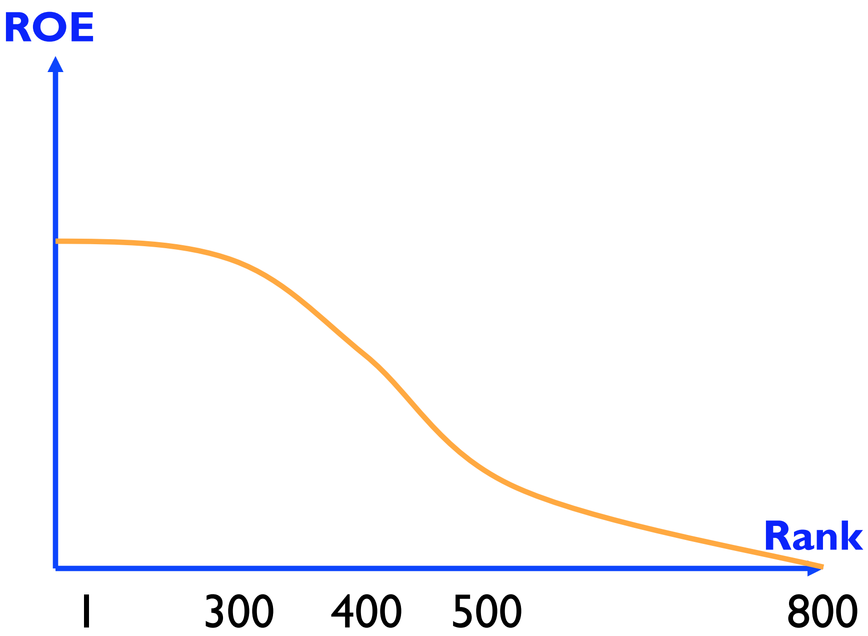

- ROE is higher for lower ranks

Properties of the index rank

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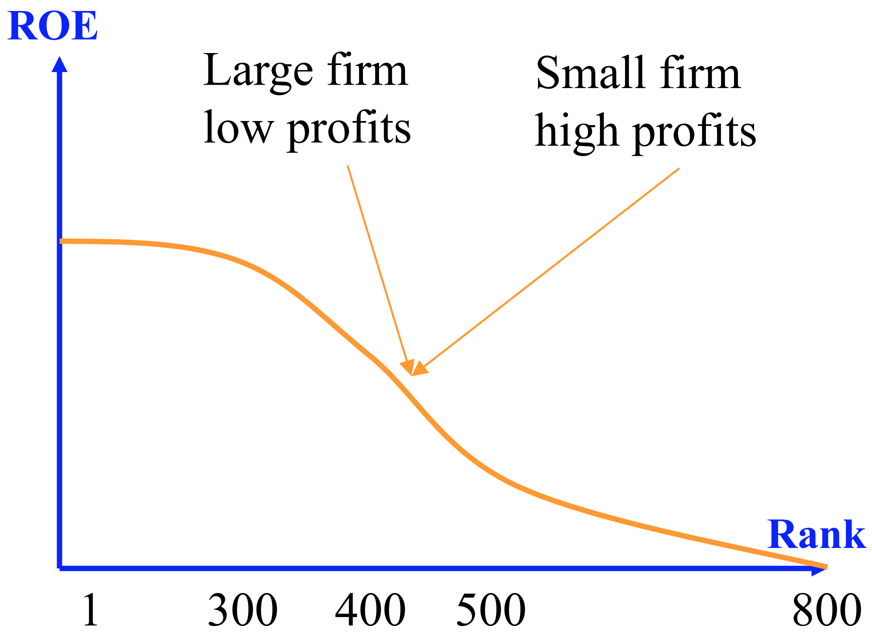

- ROE is higher for higher ranks
- Within rank, ROE and size are negatively correlated

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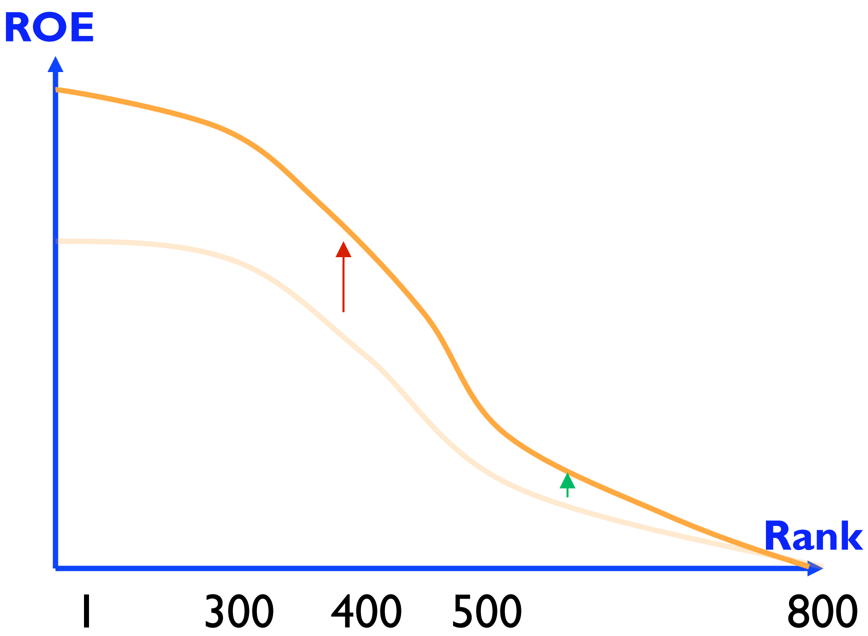

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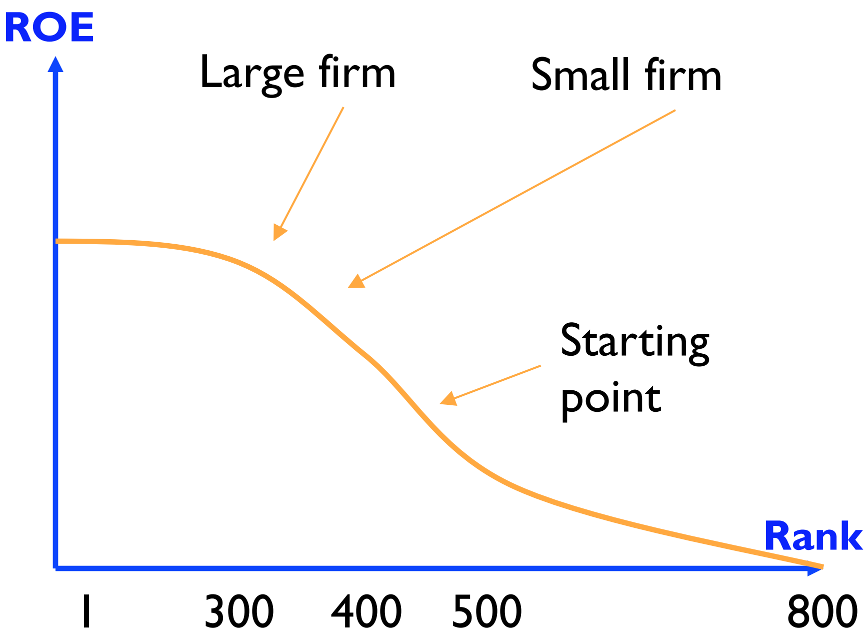
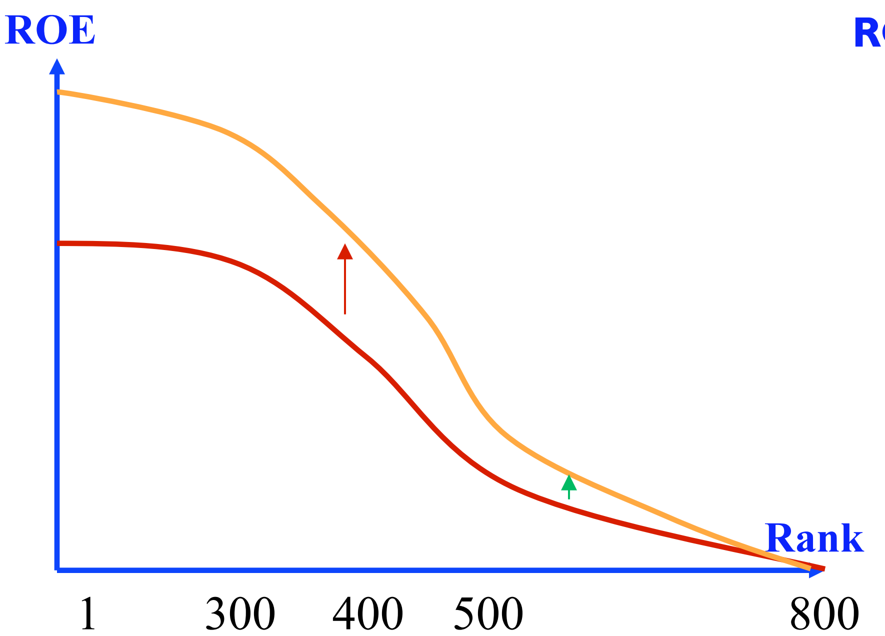


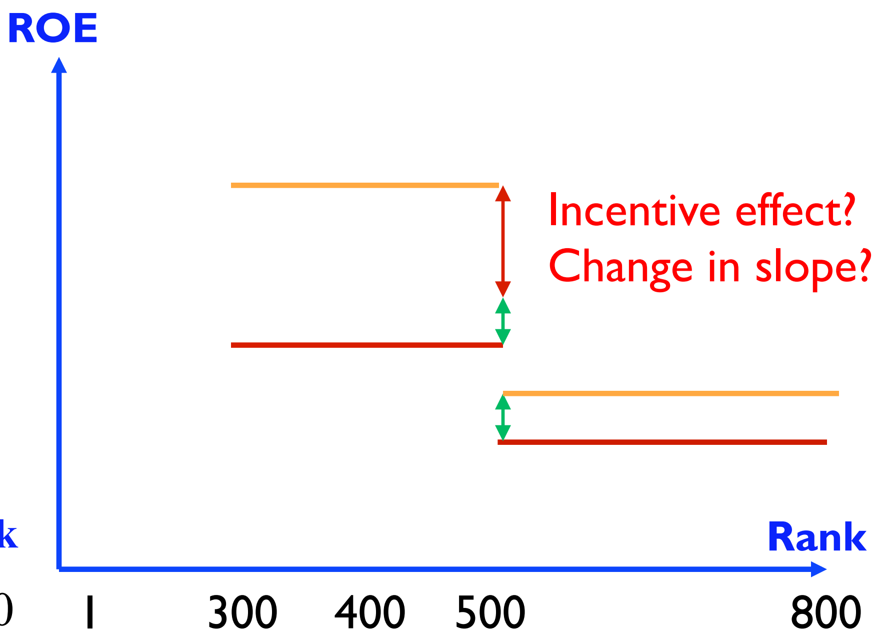
- ROE is higher for higher ranks
- Within rank, ROE and size are negatively correlated
- Relationship changes slope with parallel or multiplicative shifts of ROE
- Bigger firms improve their score more for a given % of ROE improvement

Econometric Issue 1: Time-Series Variation

- Aggregate time-series variation in ROE can be a potential confounding factor.

Aggregate changes in ROE
or.. Changes in ROE volatility





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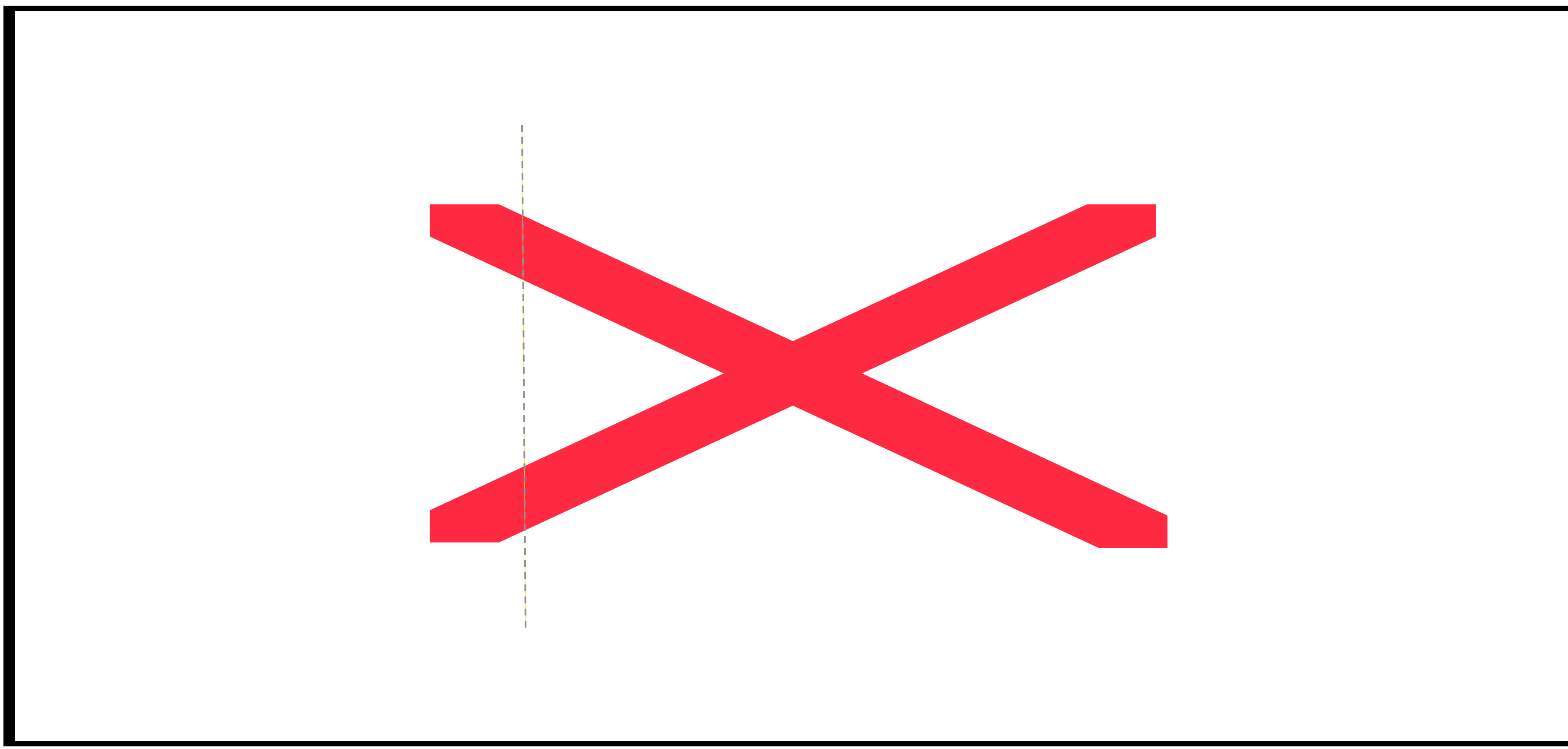

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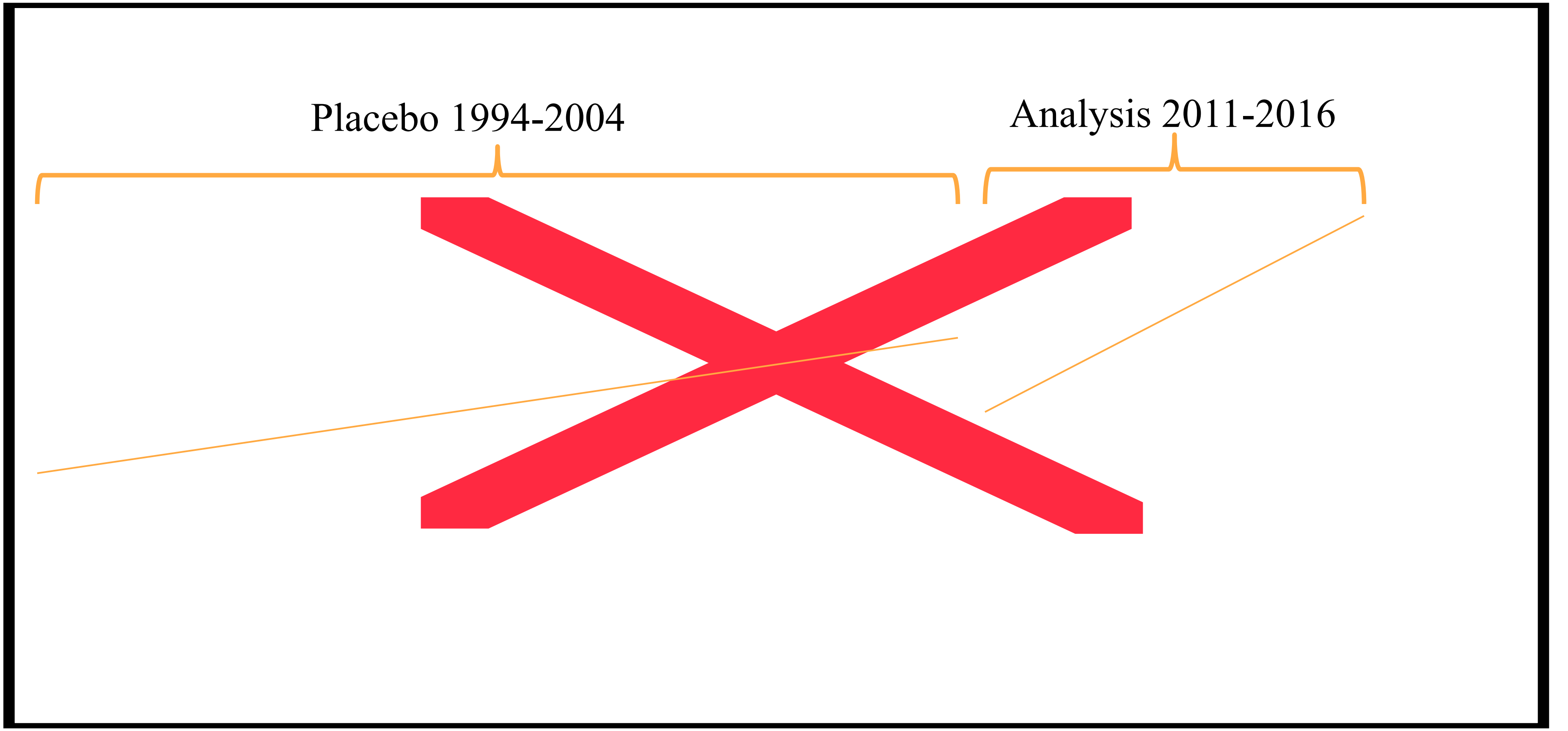

Econometric Issue 1: Time-Series Variation

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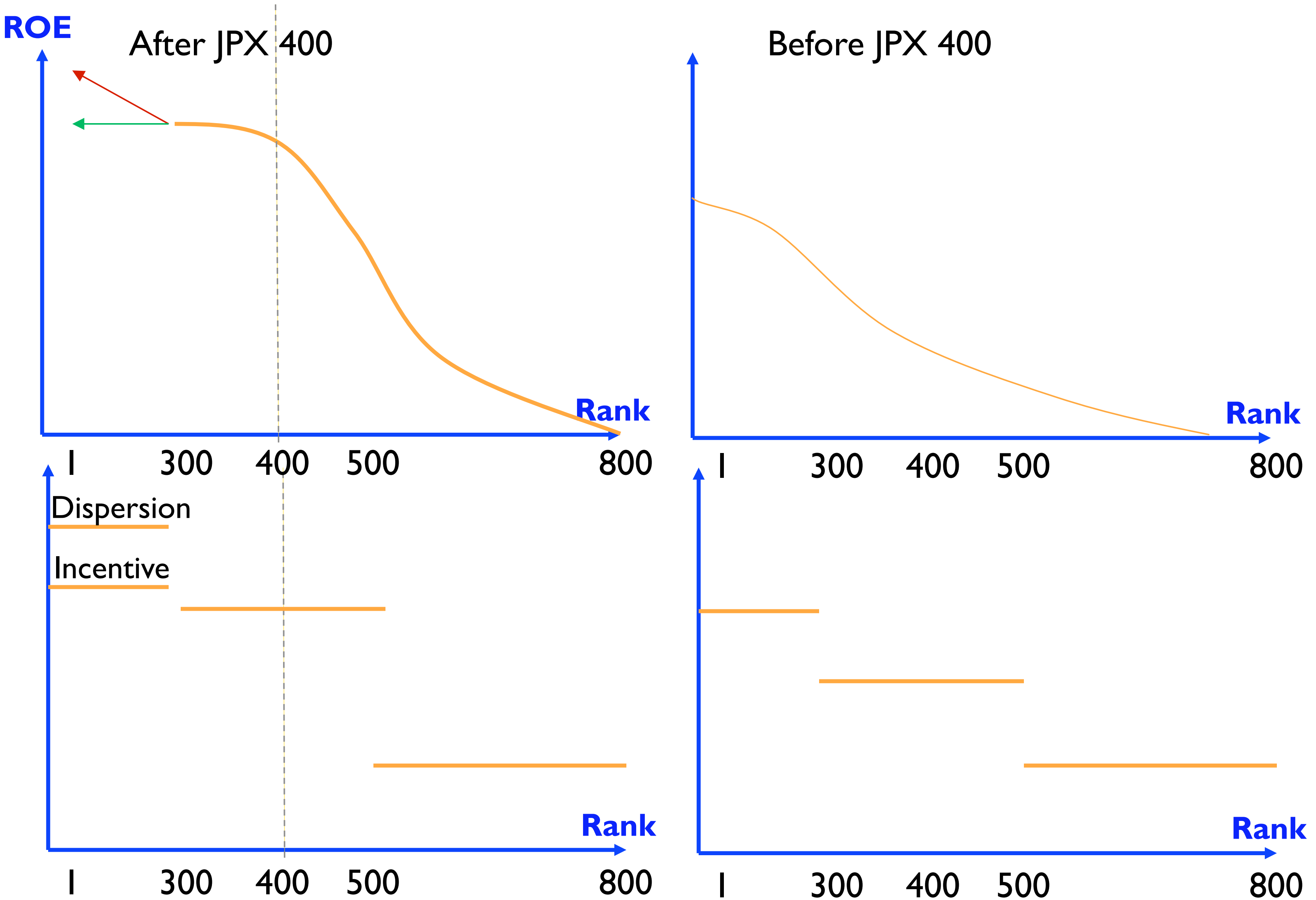

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- Possible Solution 2: Short range effects/Monotonicity

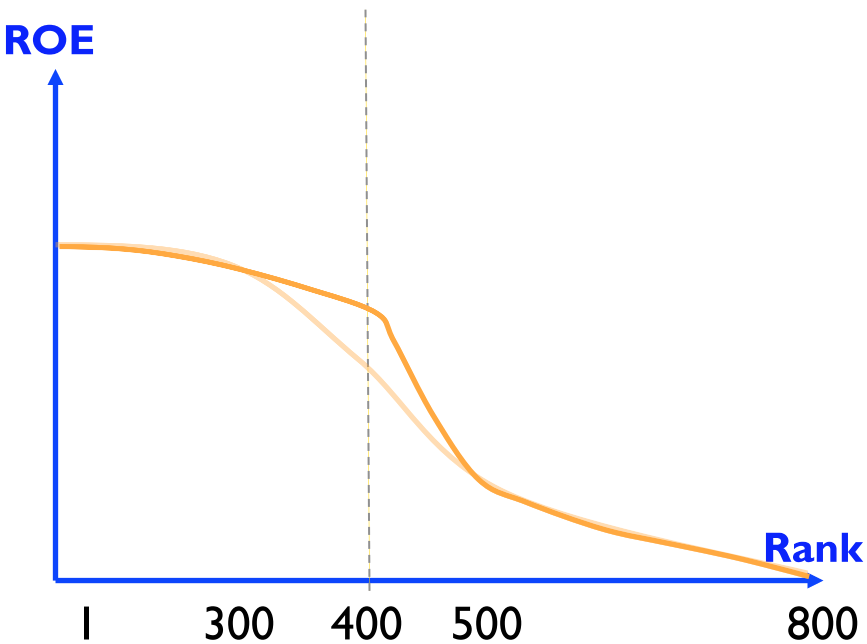
Econometric Issue 1: Time-Series Variation

Show short range effects

-Non parametric regression

-Thinner and “dummy version” of “closeness” variable

After JPX 400



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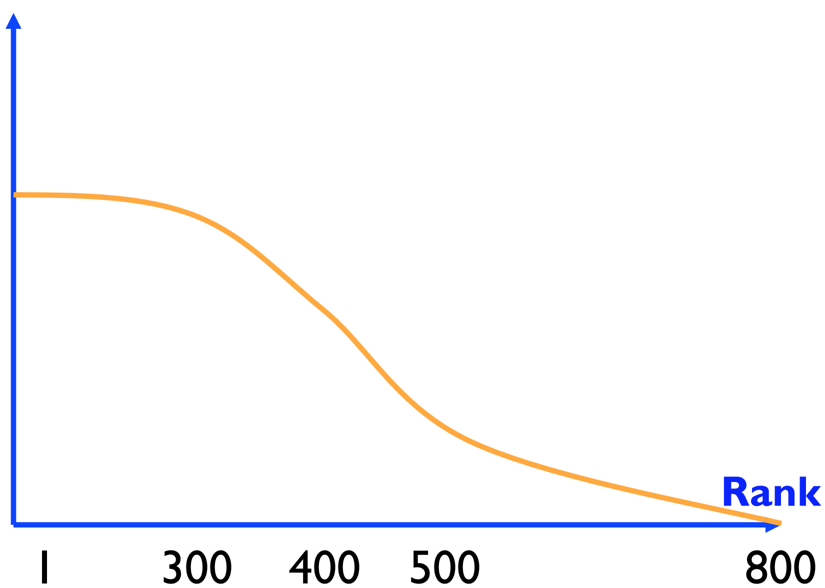


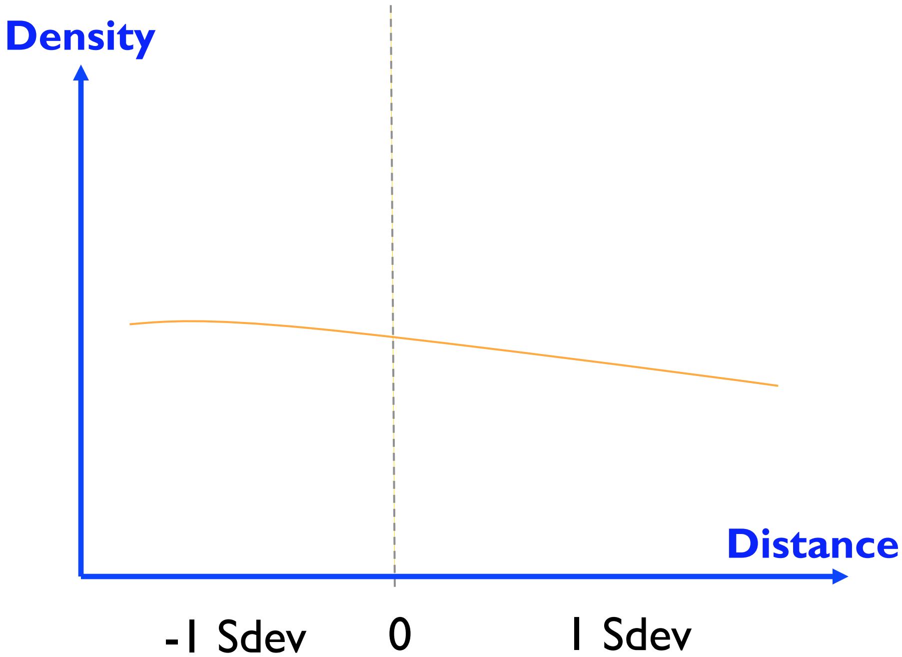
Econometric Issue 1: Time-Series Variation

- Aggregate time-series variation in ROE can be a potential confounding factor.
- Possible Solution 1 : Second diff in diff with ranks<300
- Possible Solution 2: Short range effects/Monotonicity
- Possible Solution 3: Firm problem - Focus on densities

Econometric Issue 1: Time-Series Variation

Possible Solution 3: State the Firm's problem and focus on densities
-Construct firm-specific profit distance to the threshold
-Measured in firm specific profit standard deviations

Before JPX 400



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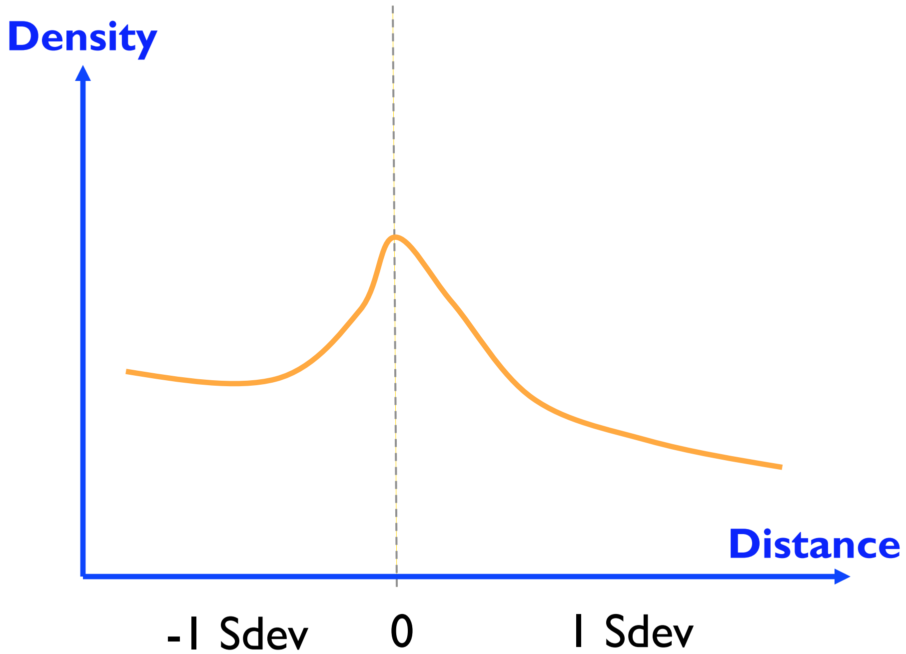
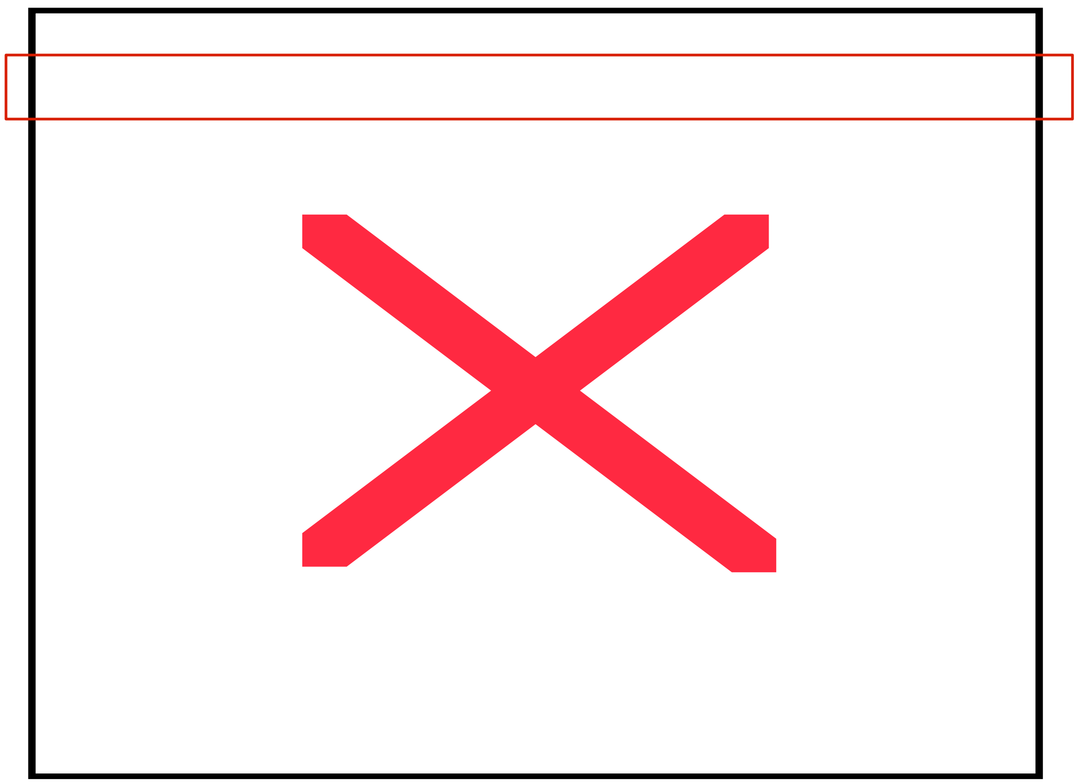


Econometric Issue II: Cross Sectional Variation

- Better approach to cross sectional variation and selection.
  - The theoretical effect is a within firm effect
  - Current stability of coefficients may indicate cross sectional heterogeneity



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Possible Solutions

- Introduce Firm fixed effects
- Relate firm's ROE to firm's ROE one quarter before

Econometric Issue III: Nikkei 225

- Effect is almost exclusively driven by Nikkei 225 firms
  - Interpretation: Those are the ones that have more to loose

- Alternative 1: Large firms climb more in the ranks for a given ROE increase

Total Score = 0.4 ROE Rank + 0.4 (Op ROE * MCap) Rank+ 0.2 MCap Rank

- Alternative 2: Large firms that show up in lower ranks have suffered a very negative profitability shock. Careful with mean reversion of ROE

Economic Forces

- Is the index is purely prestige or a bundle of many things?.
  - Government Pension Investment Fund's use it as a benchmark
  - Firms select into the index and the index causes improvements too (re-balancing of funds, brand name…)
  - Paper checks that results are the same for close firms that did or did not make it into the index. Short-term effects are small.
  - What about long term effects?

Economic Forces

- Additional performance or Signalling?
  - The index could serve as a coordination device for investors beliefs
  - Before the index: pooling equilibrium
    - Investors believe that being above or below JPX400 is irrelevant
    - Firms ignore JPX400
  - After the index: Separating equilibrium
    - Investors believe that better firms re above JPX400
    - Good firms take costly actions to make it above JPX400
    - Investors beliefs are confirmed

- Almost the same story, except that here, no value creation. All the effect is though selection.

Firm Distortions and Valuation

- What is the distortion, what is the gain?
  - Firms increase ROE and pay-outs, they decrease R&D
  - Link to multitask theory. If firms are catering for short-term ROE, what are the dimensions that they neglect?

- Firms with more slack tend to react more. Does not discriminate many theories

- Incentive effect is temporary, where does the CAR come from?
  - 16% ROE increase for one year
  - 20% Market cap increase

Summary

- Novel question
- Lots of interesting results
- Room for improvement in ruling out alternative effects
- Very rich setting: many of potential tests to reinforce/reject the main hypothesis
- Can we learn more on economic forces?
  - Prestige vs Bundling
  - Value creation vs Signalling
  - Market reaction

Thanks!