Business Uncertainty in Developing and Emerging Economies

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Motivation

- Productivity is a large determinant for growth
- Productivity differences accross countries can be explained by three mechanisms:
  1. Selection: entry and exit
  2. Misallocation of resources
  3. Adoption of better technologies and innovation
- This paper aims to explore managers' beliefs to explain differences in the first mechanism (not sure the second one)
- Elicit managers' subjective probability distributions about future own-firm sales to measure uncertainty
- Measure volatility with manager's absolute forecast errors

Summary

- Two new facts:
  - Uncertainty and volatility decline with GDP per capita
  - Managers underestimate volatility (overprecise), more so in rich countries

- Build model to understand its effect in cross-country TFP gaps
  - Higher volatility in poor countries, greater option value, requiring larger "TFP" gaps to account for their low GDP pc
  - Overprecision in rich countries decreases "TFP" gaps to account for their larger GDP per capita
  - The first mechanism seems to be stronger (55% vs 12% for poorer countries)

Alternative selling point

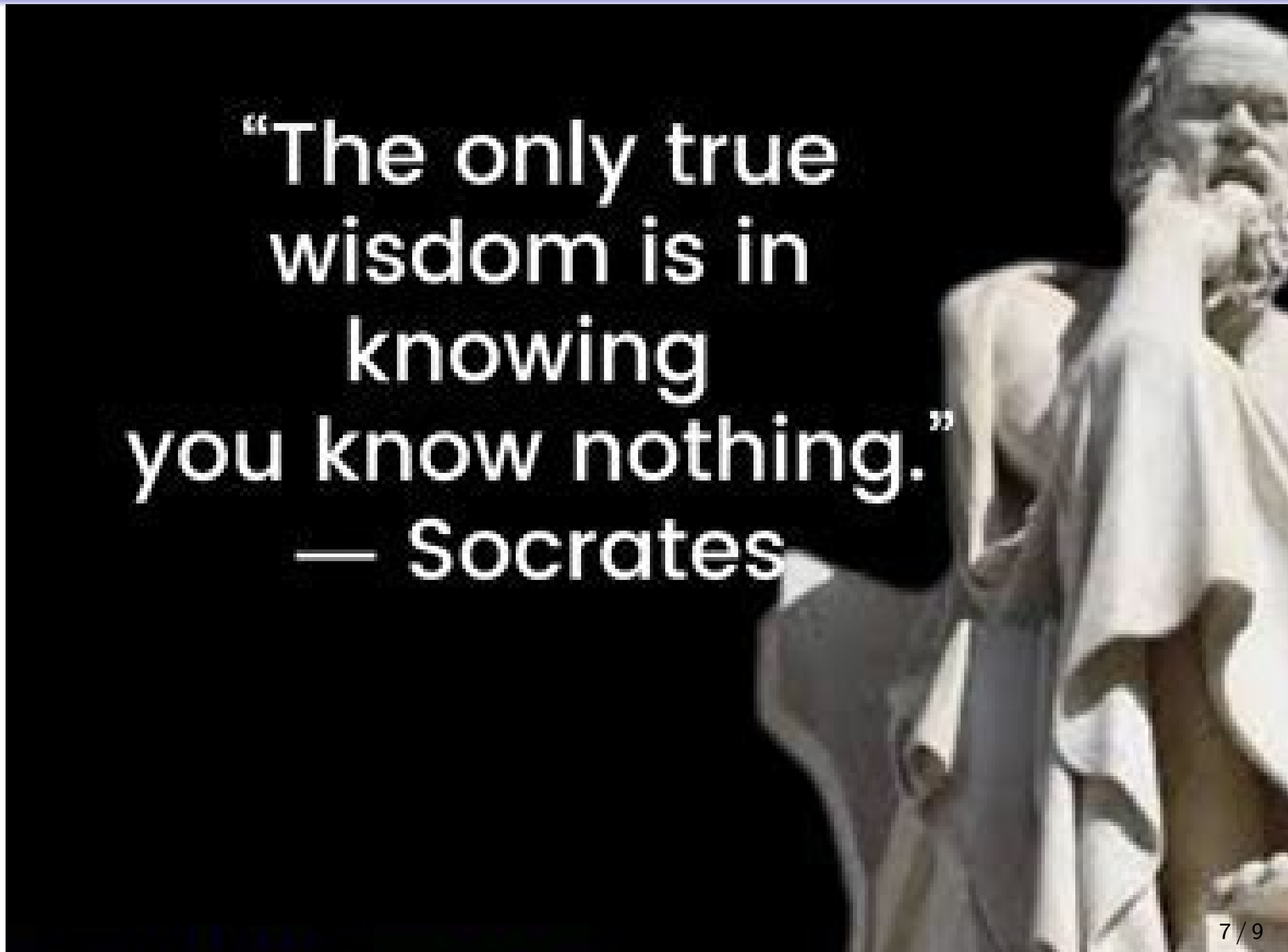
- Would not cast the results as the TFP gaps required to match GDP differences
- Instead how much your mechanism explains TFP differences
  - Volatility explain a larger share of TFP
  - Overprecision a lower share of TFP
- A quantitative model should be used to give quantitative answers

Uncertainty versus risk

- Knight (1921):
  - Risk: Measurable probabilities and known outcomes through probability distribution of returns using realized observations
  - Uncertainty (ambiguity): Unknown distribution and (possibly) unknown outcomes. Unmeasurable
- Savage (1954): Uncertainty can be measured through a subjective probability distribution is some axioms are satisfied
- Recent decision theory: Uncertainty (ambiguity) is measured as a probability distribution over probability distributions
- Here:
  - Uncertainty measured as variance of elicited subjective probs
  - Risk (volatility) measured with forecast errors and not historical observed realizations (?)
  - Model: uncertainty is true variance of profits and volatility is its subjective variance

A bayesian perspective: the value of information

- Managers can update their subjective beliefs using observed (objective) profits
- Their ability to interpret the signals (observed profits) translates into their willingness to experiment (selection and allocation)
- Which in turn translates into differences in innovation, TFP and growth
- Having more uncertainty (as in paper) would encourage experimentation because signals would be more important (Maloney and Zambrano, 2024)


“The only true
wisdom is in
knowing
you know nothing.”
— Socrates

Alternative explanation

- ... unless the elicited beliefs arise from different interpretations over signals
- Signals are drawn from the objective probability distribution and the better we process them, the closer we get to that distribution: less "volatility"
- Leading to better decisions and more TFP
- So, theory would suggest the mechanism behind larger GDP pc is a greater ability to interpret the signals (Veldkamp, 2024)

Questions

- Useful to know if the elicited beliefs take into account the decisions managers expect to take
  - Including experimentation could mean past observations are not perfectly informative. Maybe add a control
- Absolute forecast errors are not in same units as uncertainty: biased measure of overprecision
  - Perhaps you should only focus on differences accross countries
- What is the structure of the market for goods? Did not see competition accross firms
  - Important to quantify misallocation

Smaller Comments

- Infinite capital supply from international capital markets but infinite cost for incumbents to finance investments externally?