Terrible Policy Recommendations

(US Economy)

Policy Actions

US Economic Structure +
US Legislative & Institutional Set-up

Policy Impacts

(JPN Economy)

Policy Actions

W/O considering the differences

JPN Economic Structure

JPN Legislative & Institutional Set-up

Policy Impacts

Naïve application of US results
Measurement Errors in the CPI

• Inevitable:
  – Some measurement errors in various steps in CPI compilation (price survey, weighting, ...)

• Magnitude:
  – Varies depending on compilation methods and economic conditions

• Assessment:
  – Careful account for country-specific factors
  – Naive application of US empirical results: Inappropriate & Misleading
Lower Level Substitutions

• L-level Sub: US Specific Problem!
  – Random sampling of prices surveyed

• Less Relevant in Japan
  – “One specification for one item” policy:
    • Small price dispersion within each item
    • Aggregation methods DO NOT matter much!

• Japan’s Problem:
  – NOT L-level aggregation method
  – But, sample selection method, thus NOT always produce upward biases
Index Formula Issues

(Former US CPI)

\[ P^C = \sum_{n=1}^{N} \frac{1}{N} \frac{p_{1n}}{p_{0n}} \]

Loosely-defined specification with random sampling

\[ P^J = \prod_{n=1}^{N} \sqrt[1/N]{\frac{p_{1n}}{p_{0n}}} \]

(Current JPN CPI)

\[ P^D = \frac{\sum_{n=1}^{N} \left( \frac{1}{N} \right) \times p_{1n}}{\sum_{n=1}^{N} \left( \frac{1}{N} \right) \times p_{0n}} \]

Tightly-defined specification

\[ P^J = \prod_{n=1}^{N} \sqrt[1/N]{\frac{p_{1n}}{p_{0n}}} \]
An Example of Downward Bias

Cellphone service charge

General downward trend

But, recent sharp drops?

NTT Docomo

Implicit assumptions: Instantaneous shift of carrier users to the cheapest price plan

Downward bias at the moment

Softbank