The Japanese CPI is closer to a pure Laspeyres

- At the *upper level*, the Japanese CPI uses 598 items in its CPI instead of the 211 strata used in the US, and surveys these prices in 167 municipalities across Japan as opposed to the 38 in the US.

- The lower level of the Japanese CPI is virtually non-existent
  - Typically one price quote per good
Differences between JCPI and USCPI

- Characteristics of JCPI
  - Upper level substitution bias
    - “Chained CPI” is not chained in US sense
  - Lower level substitution bias
    - No Geometric Averaging of Prices at lower level because of limited sample and non-random sampling
  - Sampling Error
  - No hedonics before 2000 and now only computers and digital cameras
  - New Goods Bias
Upper Level Bias
Chaining

- US C-CPI-U uses a Tornqvist formula for chaining that incorporates base and current weights
  - Estimates of current weights are used until final weights are used

- "Chained" JCPI does not use current weights
  - Simply updates the Laspeyres base annually
    - USCPI updates this biannually
    - Japanese "chaining" is what US calls "annual weight updating"

- JCPI does not solve substitution bias!
Why Annual Weight Updating Can Make things Worse

Weight will be high when prices are rising and low when prices are falling.