Comments on
Persistence in Law-of-One-Price Deviations by Crucini and Shintani

Andrew K. Rose
UC Berkeley, CEPR and NBER

Important, Trendy Area of Work

- Current dispute about persistence and dis-aggregated price data

    o Imbs et. al. vs. Chen-Engel

- Here: half-lives of LOOP deviations claimed to be short

    o Small-sample and (especially) aggregation biases explain

    long aggregate half-lives for PPP

Good

- Use of price (not index) data, including many non-tradables

    o Data not intended for this purpose (legitimacy)

    o Data set used before by Parsley-Wei, Rogers, others

- Comparing international to intra-national price movements

    o Natural benchmark

- Careful estimation

    o Compelling sensitivity analysis (e.g., measurement error)

First Doubt

- Reconciliation with other literature?

    o Why is there such a strong consensus view? Note 1 lists

      ten older studies with dis-aggregated data

    o Anderson-van Wincoop (2004): trade costs are **large**

      (170% *ad valorem* tax equivalent), vary by location, good

    o Bradford-Lawrence (2004): **huge** price dispersion in 8

      OECD countries, using 3,000 dis-aggregated prices in '90s

Same Data, Different Take

- LOOP works terribly!

    o Figure 1 has *huge* dispersion of LOOP deviations across

       goods/locations (s=60% internationally; 25% for US)

    o True that US is more integrated than international market

    o Also accurate to conclude little evidence of integration

    o Ditto Figure 2 (aggregated across goods)

        ▪ Dispersion falls internationally, but not much

What do Authors Mean by LOOP?

- Equation 3.1: If each location has its own intercept (steady

  state real exchange rate), is this convergence to LOOP?

- **More Generally: If LOOP works so badly at long intervals,**

  should we fixate on convergence?

  o Why do/should we care about rapid/slow convergence to

  big deviations from LOOP?

Are Results Inconsistent with Literature?

- Table 5: LOOP has highly persistent deviations without

  location-specific term

    o Seems eminently consistent with literature (especially US

      vs. international)

Even in Context of Conditional Convergence

- Authors may have Mendel's problem (excessively positive findings)

    o Non-tradables: should convergence exist?

        ▪ Let alone at roughly comparable speeds?

        ▪ Table 6: effect of small-sample bias big; big enough?

Smaller Suggestions

- Remove "original version" date

- Describe what's traded/non-traded

- How carefully have the data been checked?

- Any issues with explosive roots?

- How important is the assumption of AR(1) model?

- Investigate more deeply *which* goods are highly persistent (thus

  contribute to high aggregate persistence)

Bigger: Reconcile Inter- and Intra-national Evidence

- Figure 3: LOOP works better for US non-tradables than

  tradables (!)

- Unit-root in LOOP deviations rejected more often

  internationally than for US (!)

- Would like to see column in Table 6 for US: compare non-

  tradables to tradables (as in previous tables, especially given

  Figure 3)

Large

- Parameterize (destroy) intercepts by including variables for

  countries, currencies, trade barriers, etc.

  o Close to Parsley-Wei strategy in "Limiting Currency

  Volatility …"

My Bottom Line

- Surprising that relative prices converge quickly (but not to

  LOOP!): <u>Agree</u>

- Most variation of relative prices is across locations, and is

  steady-state (not stochastic): <u>Agree, though not surprised</u>

- <u>Disagree</u> that "LOOP do not convey substantial price inertia suggested by existing PPP literature" (p 13)

  o No puzzle since *most* relative price variation is highly persistent

    ▪ Rapid convergence to large deviations

    ▪ No need to investigate small-sample or aggregation bias