

# Discussion of “Cross-country Exposures to the Swiss Franc,” by Augustín Bénétrix and Philip Lane

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# Presentation Outline

1. Summary of the paper
2. What motivates interest in currency exposure and valuation effects?
3. Comments/suggestions

This paper looks at cross-border currency exposures and valuation effects (VE)

(1) Documents **currency exposures** for the 2002-2012 period:

- Foreign currency exposure for Switzerland
- Exposures to Swiss Franc for 112 countries

(2) Calculates **exchange rate-induced valuation effects**:

- Can calculate valuation effects for any bilateral/multilateral exchange rate change scenario
- Estimate historical exchange rate-induced valuation effect for Switzerland over 2002-2012

Country-specific application of a larger dataset developed in previous work (Lane and Shambaugh, 2010, Benetrix, Lane and Shambaugh, 2014)

Very rich/detailed dataset on bilateral exchange rate exposures by asset class over 1990-2012

- FDI and portfolio equity: currency exposure = geographic exposure
- Debt: country-level currency denomination of debt instruments
- Foreign reserves: COFER data
- $\Rightarrow$  bilateral exchange rate exposures:  $w_{\{country, currency, time\}}^{\{A/L, asset\ class\}}$

# Motivation?

Why are exchange rate exposures and valuation effects of interest?

Can be related to the "effective" exchange rate literature (i.e., NEER & REER)

Refresher on "effective" exchange rates:

- **Aggregation problem:** How to construct aggregate relative price when more than 2 countries?
- Key Question: Why is aggregate relative price of interest?
- Answer: Want to know the effect of relative prices on demand for GDP at home (i.e., -imports) and abroad (i.e., exports)?

$$\left[ \Delta \frac{P_1}{P_i}; \Delta \frac{P_2}{P_i}; \dots; \Delta \frac{P_N}{P_i} \right] \Rightarrow \Delta GDP_i$$

- Secondary variables of interest: NX, exports alone, etc.

- Solve the aggregation problem using Armington demand system (partial equilibrium)

$$\Delta GDP_i = \underbrace{\epsilon}_{\text{Elast}} * \underbrace{T_i}_{\text{Openness}} * \underbrace{\sum_j w_{ji} \Delta(p_j / p_i)}_{\text{REER}}$$

Takeaways:

- *REER* index, appropriately weighted, is a sufficient statistic (up to a country-specific constant term)
- In practice  $\Delta REER$  is largely driven by  $\Delta NER_{ji}$
- Most importantly: **Solution to the aggregation problem depends on the question asked**

Ultimately we should care about income ( $I$ ) and wealth ( $W$ ), not  $GDP$

## How do relative prices affect wealth?

$$\begin{aligned}\Delta W &= \Delta W^{INT} + \Delta W^{EXT} \\ &= I + VAL^{INT} + CA + VAL^{EXT}(A^F, L^F) \\ &= [GDP - C - G] + NX + NX_{FS} + VAL^{EXT}(A^F, L^F)\end{aligned}$$

⇒ So, conceptually, similar basic motivation

But focus on  $\Delta NER \Rightarrow VAL^{EXT}(A^F, L^F)$



Some questions/observations:

- Computation of valuation effects is an **accounting exercise**
- No further model/assumptions required
- But to answer the question (i.e.,  $\Delta NER_{ji} \Rightarrow \Delta W?$ ), need to take into account **other components**
- Or at least need to know the relative importance of the valuation component for  $\Delta W?$
  
- Especially in the case of a financial center, what are VEs capturing?
  - VEs are large in economic terms ( $\Delta \text{CHF}=1\% \Rightarrow \text{VE}=4.1\%$  of GDP)
  - But incurred on non-residents?

- Complement regressions with **decomposition exercises**
- E.g., decompose changes in aggregate exposure intotions from several margins:
  - 1 "Financial deepening",
  - 2 Role of own vs. foreign currencies in asset/liability denomination,
  - 3 Changes in foreign currency composition,
  - 4 Changes in exchange rates for a given currency composition.
- What are the **key margins**? E.g., how much of changes in aggregate exposure are driven by  $\Delta(A+L)$  vs.  $\Delta$ currency weights?

Thank you for a very rich, detailed and up-to-date dataset

Helps to systematically document exchange rate-based valuation effects (informative for, e.g., the IMF surveillance work, etc.)

Future research directions:

- Link between the exchange rate component of VE and other channels through which  $\Delta NER$  affects income and wealth
- Applications beyond the partial eq. setting