Comments on “Costs of Foreign Currency Invoicing”by Kazunobu HAYAKAWA, Nuttawut LAKSANAPANYAKUL, and Taiyo YOSHIMI

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Summary of the paper : theory

- Investigate the costs associated with foreign currency invoicing (FCI).
- Emphasize the fixed costs of exchange rate risk management.
- A theory of endogenous invoice currency choice and import frequency.
- Invoice currency choice:
- Costs of FCI :
  - exchange rate risk management costs (e.g. using hedging instruments)
- Benefits of HCI:
  - additional profit if home currency appreciates in the future

Summary of the paper : theory

- import frequency decision
  - Trade-off between storage costs and fixed costs per shipment

- Link FCI to import frequency and import value per shipment.
  - FCI ➡ larger fixed costs per shipment ➡ lower import frequency (Prop.1)
  - FCI ➡ lower import frequency ➡ higher import value per shipment (Prop. 2)

- Infer fixed costs of FCI from theory

- Also infer the difference between FCI and HCI (i.e. the exchange rate risk management cost)

Summary of the paper : empirics

- Test the predictions of the model using firm-level customs data from Thailand.
- The data provides strong support for the theory predictions:
  - FCI is associated with lower import frequencies.
  - FCI is associated with higher import value per shipment.
- Back out the fixed costs per shipment for FCI and HIC using firm-level import frequency and value per shipment data.
- Main finding: costs of FCI amounts to 7.3% (1,500 USD) to 17.1% (3,600 USD) of one-time shipment value.
- The costs of FCI is lower for RTA trade partners.

Excellent paper!

- Important topic: Costs of foreign currency invoicing.
  - Especially relevant for developing economies whose currencies are not internationalized.
- Excellent data to investigate this topic.
- Rigorous and convincing analysis.
- Well organized and well written.

Comment 1:

- Big picture: choice of invoice currency.
- The adoption of FCI is common even in countries whose currencies are internationalized.

Invoice currency for U.S. imports

Country	N	$Frac_{ND}$
Germany	1,156	0.40
Switzerland	220	0.38
Italy	1,112	0.22
Japan	2,553	0.21
UK	719	0.19
Belgium	122	0.17
France	582	0.13
Sweden	181	0.12
Spain	261	0.11
Austria	93	0.10
Netherlands	148	0.10
Canada	1,906	0.04

Table 1: Number of Goods and Fraction Non-Dollar Priced

Source: Gopinath and Itskhoki (2010)

Invoice currency for New Zealand Exports

Table 1
Invoice currency and destination shares of aggregate trade

Shares by invoice currency			Shares by destination		
	Unweighted	Trade-weighted		Unweighted	Trade-weighted
AUD	0.122	0.091	Australia	0.296	0.218
EUR	0.039	0.069	Eurozone	0.084	0.091
GBP	0.016	0.036	United Kingdom	0.039	0.045
NZD	0.570	0.200			
USD	0.231	0.567	United States	0.074	0.121
Other	0.021	0.038	Other	0.507	0.525

Shares of $\Delta_{SR}P$ observations. Trade weights are the NZD-converted average value over t and $t-M$.

Source: Fabling and Sanderson (2013)

Invoice currency for Japan Exports

Table 3. Industry Breakdown of the Currency Invoicing Share: Interview Results (%)

Sample firms	Share of currency for exports from Japan to the world[2)]			Share of currency for exports from Japan to Asia[2)]		Share of foreign sales in total sales[3)]	Share of foreign sales by region[4)]		
	USD	EUR	JPY	USD	JPY		North America	Europe	Asia
All sample firms	51.6 (50.6)	14.0 (15.0)	29.9 (25.0)	55.6 (57.5)	41.8 (32.2)	61.8 (68.1)	27.6 (28.3)	25.5 (25.9)	39.1 (37.5)
Automobile	40.0	15.3	36.9	32.6	65.6	64.8	31.1	23.3	31.1
Electrical machinery	70.9	15.3	12.6	93.0	6.4	52.6	32.5	34.9	32.5
Machinery	28.3	10.0	61.7	20.0	80.0	69.8	22.0	22.7	48.2
Electrical components	71.1	12.5	12.2	88.8	9.4	67.8	19.1	20.8	57.0

Source: Ito et al. (2010)

Comment 1: the importance of the highlighted channel

- In the model
- Costs of FCI :
  - exchange rate risk management costs
- Benefits of FCI:
  - More profit if home currency appreciates in the future

- My guess is that even in the period of home currency depreciation, there is still a large proportion of FCI.

- Are there other gains of FCI not present in the model?
- How important is the specific channel heighted in the model compared with other forces determining currency invoicing?

Comment 2: Alternative explanations?

- Consider the relationship between FCI and import value per shipment.
- Suppose more productive (larger) exporters desire low pass-through in a flexible price environment (Berman et al., 2012).
- In this case, they may prefer FCI (Gopinath and Itskohki, 2010; Fabling and Sanderson, 2013).
- At the same time, more productive exporters have higher value per shipment.
- This yields a positive correlation between FCI and higher value per shipment, not through the specific channels highlighted in the model.

Comment 3: Other sources of FCI costs

- One important source of cost of FCI might come from the exposure to exchange rate risks.
- The model assumes that such exposure to exchange rate risks is hedged through exchange rate risk management practices by paying a fixed cost.
  - Thus, the costs of FCI takes a fixed costs form and are inferred by firms' import frequency (extensive margin).

- If not hedged, it is still a "cost", but perhaps not in a fixed cost form.
- How to infer the costs of this type?