Currency Hedging: Managing Cash Flow Exposure

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Summary of Paper

Big picture: FX risks associated with participation in global markets

- Focus is shifting from sovereign debt to corporate borrowing
- USD invoicing & trade credit: new source of currency mismatch
- Booming derivatives market $\rightarrow$ active corporate risk management
- This paper studies **firms' use of FX hedging instruments**
- It exploits 2005-18 census data for non-financial firms in Chile:
  - Details of international trade transactions $\rightarrow$ FX exposure
  - Over-the-counter FX derivative transactions
  - Other foreign currency credit including bond issuance, loans and FDI
  - Firm characteristics such as employment and sales
- Do firms face FX risk? How do firms hedge FX risk? How costly is it? Does hedging add value to the firm?

Key Findings

1. Firms are exposed to sizable currency risk
2. Firms use FX derivatives to hedge **gross** short-term exposure arising from trade credit
3. Within firm, larger value transactions are more likely to be hedged. Across firms, larger firms are more likely to hedge
4. Contracts are priced differently within and across firms
5. FX hedging adds value to the firm

Key Findings

1. Firms are exposed to sizable currency risk
   - In theory, high correlation of payables and receivables minimizes exposure
   - In the data, natural hedging is quantitatively limited
   - Differences in maturities of exports and imports financing
2. Firms use FX derivatives to hedge **gross** short-term exposure arising from trade credit
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Key Findings

1. Firms are exposed to sizable currency risk
2. Firms use FX derivatives to hedge **gross** short-term exposure arising from trade credit
   - Firms with outstanding trade credit are more likely to hedge
   - Firms buy USD forward when imports are financed through trade credit
   - Firms sell USD forward when exports generate future USD receivable.
3. Within firm, larger value transactions are more likely to be hedged. Across firms, larger firms are more likely to hedge
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4. Contracts are priced differently within and across firms
   - Firms pay a positive (negative) premium for FX purchases (sales) that is increasing (decreasing) in maturity
   - Larger firms pay a lower premium when purchasing FX forward
5. FX hedging adds value to the firm

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5. FX hedging adds value to the firm
   - Firms using FX derivatives have higher sales, exports, imports and trade
   - An exogenous reduction in the supply of FX forwards reduces firm leverage, size and trade.

Some Remarks

Fantastic paper: very important question, impressive data collection & exhaustive analysis

Summary of my comments

1. Room to improve quantification of FX exposure
   - To understand magnitude: relative measures.
2. Results consistent with (what kind of) financial frictions?
   - Unclear to me without a model.
3. Other minor comments.

Comment I: Quantifying Exposure

Key question: how much FX exposure is (un)hedged?

- Authors measure share of exports and imports hedged
  - For the median importer (exporter) 50 % of imports (35% of exports) are hedged
  - Firm-level estimates are much smaller than at the aggregate
- A better measure: residual exposure relative to income or sales (Adams and Verdelhan 2022)
  - How does it vary with firm size, age, export/import experience?
- An improved quantification exercise should also consider:
  1. Translation exposure
  2. Alternative hedging strategies: money-market hedge

Comment II: Searching for Financial Frictions

Authors highlight as suggestive evidence of financial frictions:

1. Hedging is only partial
   - FX derivatives are only one way of hedging
   - Partial hedging might be optimal
2. Selection into hedging at the transaction and firm level
   - Should we think of fixed costs as financial frictions?
   - Testable implication: forward premium is decreasing in transaction and firm size
3. Use of FX derivatives increases sales and employment
   - Modigliani-Miller looks at the value of the firm.

- Authors find no effect of frictions on the forward premium
- In any case, we need a model!

Other minor comments

- Small number observations for export trade credit. Dominated by a small number of firms? Maturity versus non-availability?
- Divide trade credit between US versus non-US counterparty
- Table 5 suggests there might be interesting patterns over time
- Sales of FX derivatives are correlated with trade credit balances from exports and imports
  - This is driven by exporting firms that also import. How to interpret this?
- More on the effects of the FX derivative market supply shock
  - No back-of-the envelope aggregation for real outcomes
  - Evidence of substitution across hedging strategies?