Dominant currency dynamics:

Evidence on dollar-invoicing from UK exporters

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This paper: we investigate the invoicing choices of British exporters using transaction level data of 2010-2016 and build a model to explain the micro dynamics of firms' invoicing choices and the macro evolution of aggregate invoicing shares.

Introduction

A stunning feature in the data is the abnormally high dollar usage in global trade (Gopinath 2015):

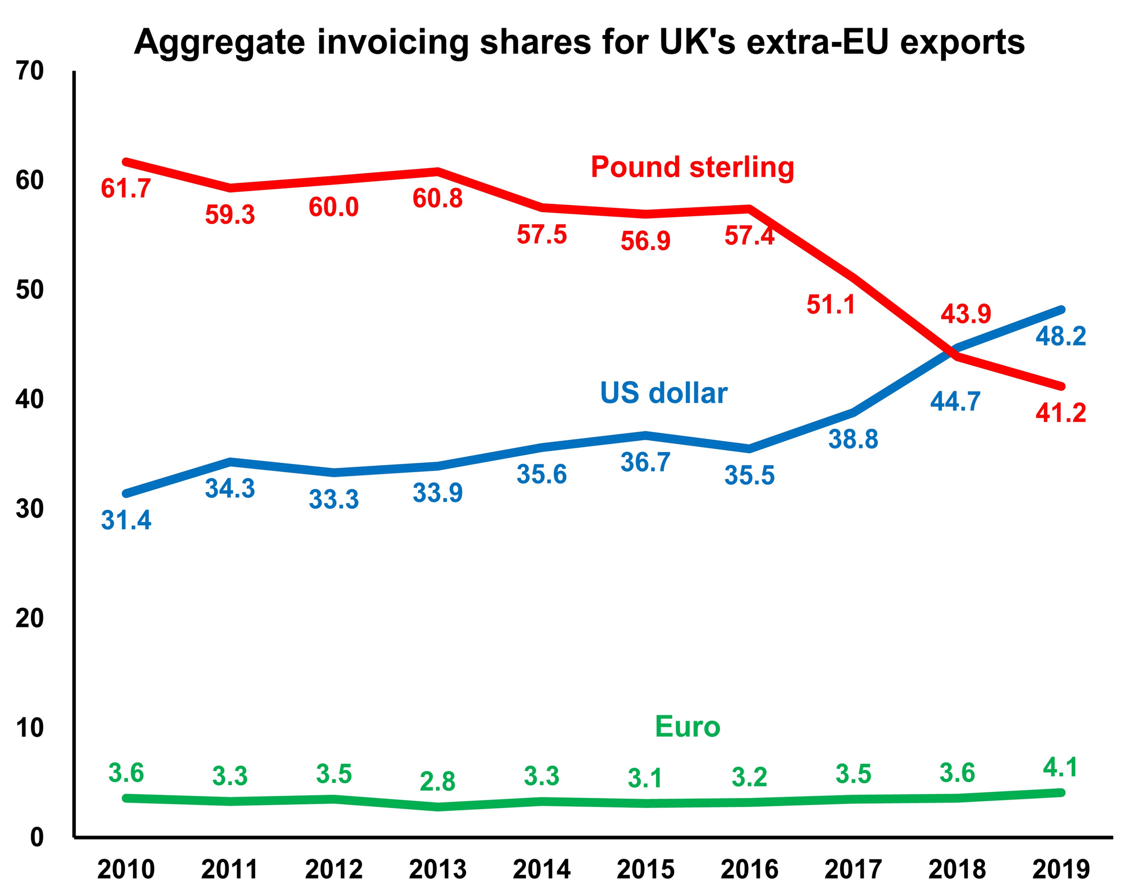
- world exports: dollar share 40% ≫ US share 12%
- world imports: dollar share 43% ≫ US share 9%

Research question:

- Which factors drive the invoicing choices of individual firms?
- How do these factors contribute to the dollar's global dominance?

UK data present a unique opportunity to study this question:

1. diverse invoicing choices: 90% of UK firms invoice in more than one currency
2. a long panel of invoicing choices at the transaction level (2010-2016)
3. significant rise of UK's dollar-invoiced export share over time (see the figure below)



Empirical specification:

Estimate a linear probability model for entry into new markets:

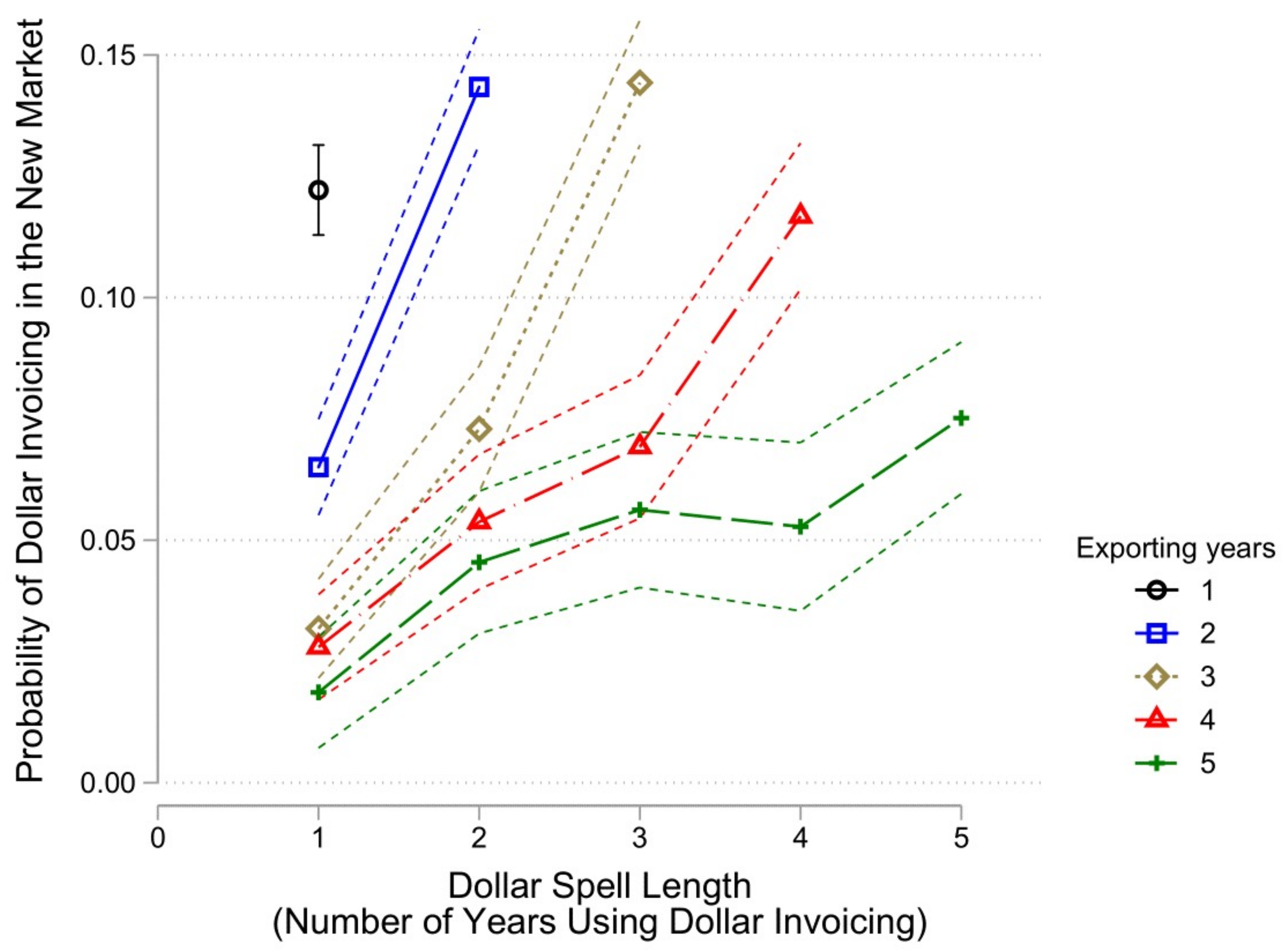
$$\mathbb{1}^{\text{USD}}_{fhdt} = \sum_{k=1}^{5}\sum_{l=0}^{k} \eta_{k,l}\, ExportTenure^{k}_{ft-1} * Spell^{\text{USD},l}_{ft-1} + \beta_1 \zeta^{\text{USD}}_{(-f)idt} + \beta_2 \psi^{\text{USD}}_{ft} + \beta_3 \psi^{\text{Euro}}_{ft} + \beta_4 \psi^{\text{LCI}}_{ft} + \gamma \text{size}_{ft} + \text{FEs} + \nu_{fhdt}$$

- $\mathbb{1}^{\text{USD}}_{fhdt}$: dummy equal to one if firm *f* selling product *h* in a new market *d* in year *t* used US dollars to invoice its transactions and zero otherwise
- $ExportTenure^{k}_{ft-1}$: dummy equal to one if firm *f* has *k* years of exporting experience prior entry into the new market
- **$Spell^{\text{USD},l}_{ft-1}$: dummy equal to one if firm *f* has used dollars for *l* years in its existing markets prior entry into the new market**
- $\zeta^{\text{USD}}_{(-f)idt}$: firm *f*'s competitors' dollar-invoicing export share in market *d* (strategic complementarity measure; instrumented)
- $\psi^{\text{USD}}_{ft}, \psi^{\text{Euro}}_{ft}, \psi^{\text{LCI}}_{ft}$: dollar-, euro- and destination- currency invoiced import shares of firm *f* (operational hedging measures)

Key empirical finding:

We document significant within-firm spillover of dollar usage over time and across markets:

A firm's dollar invoicing probability in a new market increases in its prior dollar experience, after controlling for strategic complementarity and operational hedging motives.



Theoretical contribution:

We introduce a fixed cost of currency use at the firm level to explain the newly documented spillover effects:

- **scale effect:** the more destinations using a currency, the lower the cost
- **joint market decisions:** the pricing and invoicing choices are inter-dependent across markets due to the firm-level cost of currency usage
- **path dependence:** a firm's invoicing choice in a new market depends on its past invoicing choices in existing markets

Aggregate and policy implications:

1. Dominance of US dollars:
We estimate that the dollar share of UK's extra-EU exports would be 7% lower (0.39 → 0.32) without the spillover effect.

2. Global transmission of shocks:
Due to the inter-dependence of firms' invoicing choices across markets, a destination-specific shock can quickly propagate and have global impacts.

Full paper can be found here.
Questions and comments are welcome: Contact Lu Han at hanlulong@gmail.com

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