

Discussion of:

Banking, Trade and the Making of a Dominant Currency

By Gita Gopinath and Jeremy Stein

Cédric Tille

Geneva Graduate Institute and CEPR

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Research on Dominant Currency

- Sharp asymmetry in the global financial system, with a dominant position of some currencies (Pound historically, US Dollar now).
 - Observed in finance (denomination of assets) and trade invoicing (use of «vehicle currency»).
- This matters for macroeconomic transmission and policy.
 - Corsetti and Pesenti (ISOM 2007) with Dominant CP.
 - Devereux, Shi and Xu (JIE 2007) with optimal policy under a dominant role of the dollar.
 - Goldberg and Tille (JME 2009) center-periphery model with analysis of gains from cooperation.
 - Devereux, Shi and Xu (JMCB 2010) showing that oil dollar invoicing leads to a dominant dollar role.
 - Gopinath (Jackson Hole 2015) showing dollar use in trade.
 - Mukhin (2018) with endogenous dominant currency.

Linking trade and finance

- The paper provides an overall model linking the roles of the dollar in trade and international finance.
- Trade invoicing → Savings.
 - Some imports are invoiced in dollar. Savings in dollar offer a hedge against movements in purchasing power.
- Demand of dollar assets → Issuance by banks.
 - Banks issue dollar liabilities backed by dollar assets and domestic currency assets (limit given by dollar value in worst case scenario).
 - Dollar safe claims have a relatively low return.
- Issuance of dollar by banks → Trade invoicing.
 - Banks-exporters invoice in dollar to create dollar-generating assets to back banks' dollar liabilities.
- Extensive analysis of equilibria with different currencies.
 - Dominant role of the dollar in trade and finance, despite presence of euro.

Comment 1: Portfolio and invoicing

- Two periods model where consumption in period 1 is funded by savings from period 0.
 - If some goods are invoiced in dollar, dollar denominated assets offer a hedge.
 - Model in the text with «assets in utility», appendix model with portfolio choice. I would focus on portfolio choice.
- Very strong emphasis on hedging of consumer prices.
 - How about hedging of other factors?
- Adjust the model in two ways.
 - General utility instead of mean-variance (requires approximation, but more tractable).
 - Allow for income in period 1 that is (negatively) linked to the exchange rate.

Portfolio choice

- Budget constraint in period 1:

$$P_1 C_1 = D_h + S_1 D_\$ + V(S_1)^{-\delta}$$

- δ captures the co-movement of income with exchange rate.
- $S_1 = \exp[s_0 + s_1]$ where s_1 is the deviation from steady state.
- Optimal portfolio choice equalizes expected discounted returns:

$$0 = EU'(C_1) \times [\exp[(1 - \alpha)s_1] - \exp[-\alpha s_1]]$$

- A quadratic approximation gives the dollar share in assets θ :

$$\theta = \frac{\alpha + \kappa\delta}{1 - \kappa} + \frac{1}{1 - \kappa} \frac{E(r_\$ - r_h)}{\gamma E(e_1^2)}$$

- κ is the steady state share of consumption funded by period 1 income (0 in the paper).
- γ is the coefficient of relative risk aversion, and $E(r_\$ - r_h)$ is the (2nd order) expected excess return on dollar assets.

Why are dollar assets appealing?

- They may offer a higher expected return.
 - Not much of an issue if risk aversion γ is very high.
- They offer a hedge against movements in
 - consumer prices – the α term.
 - income – the δ term.

$$\theta = \frac{\alpha + \kappa\delta}{1 - \kappa} + \dots$$

- One can get a demand for dollar assets even if there is little dollar invoicing.
 - The good news: demand for dollar assets is broader than in the paper.
 - The less (?) good news: the chain at the core of the paper may not be so important.

Comment 2: Invoicing choice

- The paper models export invoicing as a joint choice between exporters and their bankers.
- The risk neutral exporter-banker pair maximizes expected profits.
- A dollar-generating asset can be used to back a dollar claim.
 - Dollar claims are in high demand by investors, and get a higher price than domestic currency claims.
- Invoicing in dollar is a way to create dollar-generating assets.
 - This would lead to a corner solution with full dollar invoicing.
- A quadratic cost of dollar invoicing ensures an interior solution (weight ϕ on the cost).
- This is an ad-hoc way to model invoicing.

Build an invoicing model

- Bacchetta and van Wincoop (JIE 2005) with emphasis on concavity / convexity of profit function.
 - Also in Devereux, Engel and Storgaard (JIE 2004).
- Goldberg and Tille (JIE 2008) with distinction between hedging of marginal costs that co-move with the exchange rate and «coalescing» role of strategic complementarities.
- Hedging of marginal cost (interest cost or other) in Novy (2006) and Devereux, Shi and Xu (2010).
- Mukhin (2018) for a rich model.
- The paper should develop a model of exporter's invoicing with dollar denominated funding costs.
 - Is the interest cost a large enough component of overall costs?
 - Devereux, Shi and Xu (2010) show that even inputs with small shares can matter.

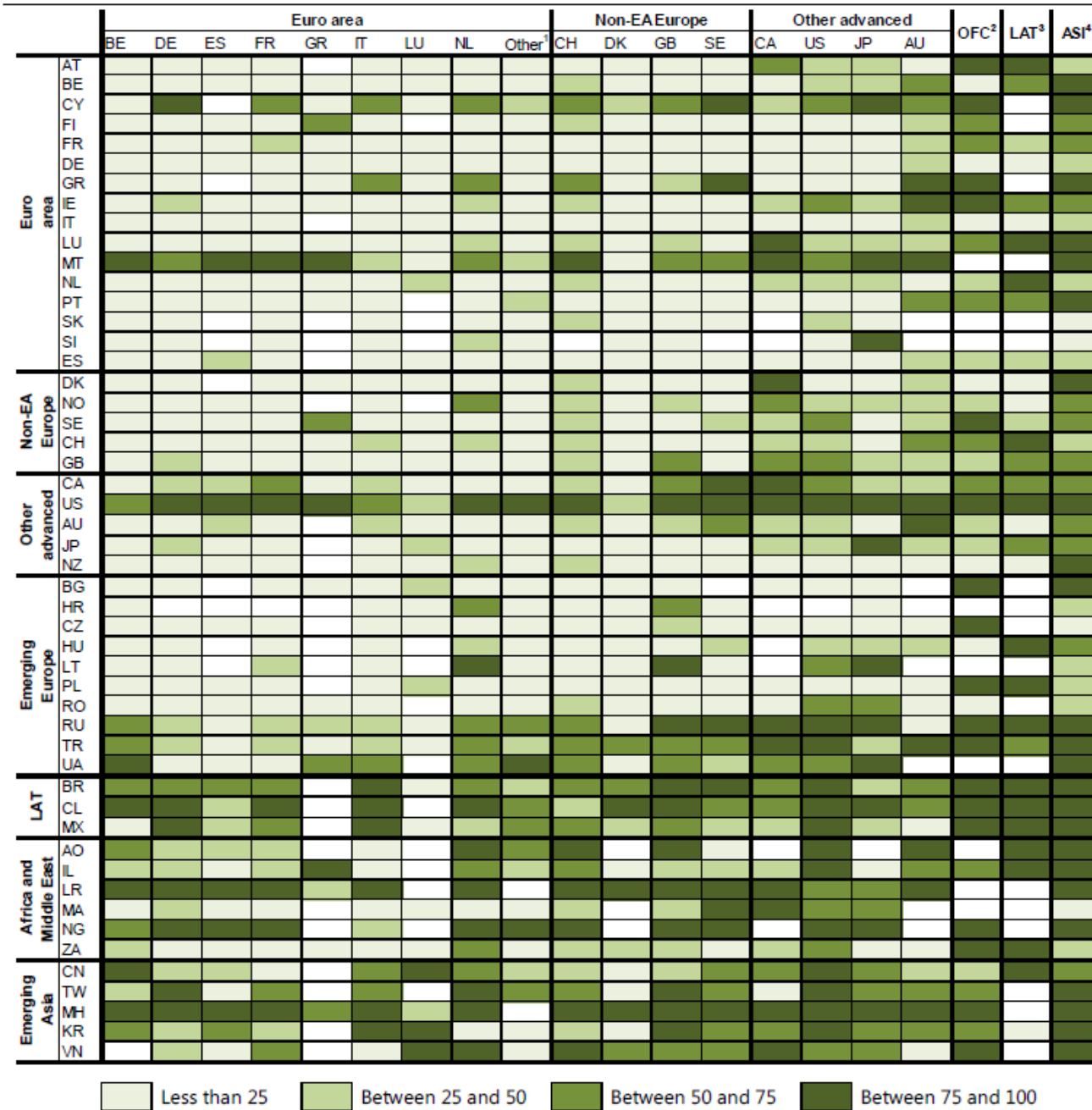
Comment 3: Financial dimension

- Large role of the dollar driven by demand for safe assets.
- Relevant consideration, but drivers can be broader.
- Maggiori, Neiman and Schreger (2018) point to currency domestic bias from investors.
 - The dollar stands as an exception.
 - Dollar market breadth reduces funding costs of US firms.
 - Such economies of scale would complement the mechanisms in the paper.
- Regional dimension. The dollar clearly dominates globally, but other currencies can have a large regional role.
 - Avdjiev and Takats (2016) map currency networks.
 - Dollar lending from US and EME banks to Latin America and Asia.
 - Euro lending from Euro area and emerging Europe banks to European countries.

US dollar share in cross-border bank lending in Q4 2014

By nationality of lending bank (columns) and residence of borrower (rows), in per cent

Graph 1



Comment 4: Is ONE story needed?

- The paper develops a serie of close linkages between invoicing, demand for dollar assets, and issuance of dollar claims.
 - This puts pressure on modelling: portfolio to hedge against dollar prices, invoicing to generate dollar assets.
- More realistic to have a few stories co-exist.
 - Demand for dollar assets may be unrelated to hedging of import prices – and still be a very important story.
 - Invoicing in US dollar may not be driven much by hedging of financial cost (e.g. historical inertia in commodity markets).
- Complementary stories on segments of the chain instead of a single over-reaching one.
- Does the dollar dominance benefits the US?
 - «Exorbitant privilege» is debated.
 - Dominance limits efficient price movements. US welfare may not benefit.

Conclusion

- A very relevant paper taking a general view of the international role of the dollar.
 - Other papers focused on some segments (trade invoicing, financial markets).
- Ambitious view raises challenges for tractability.
 - Focused reason for saving in dollar assets.
 - Ad-hoc way to model invoicing of trade.
- Allowing for complementary stories (each pertaining to a segment) is more appealing.