

# Dollar Asset Holding and Hedging Around the Globe

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Discussion by Robert Richmond

# Important Questions About the US Dollar

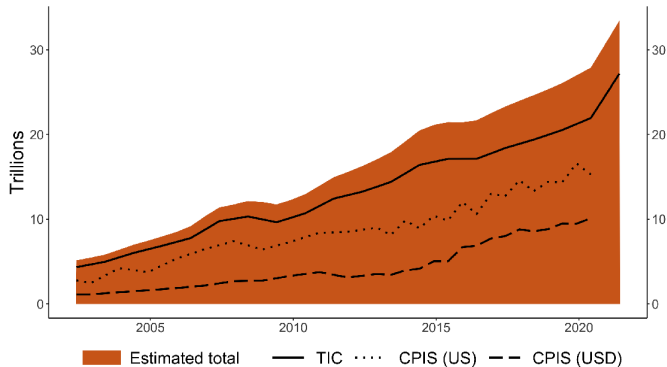
1. How much of investor's portfolios are held in USD and has it changed over time?
  - Implications for geopolitics
  - Implications for dominance of currencies
2. How much hedging of currency risk do different institutional types do?
  - Important guidance for demand-based asset pricing models.
3. Does demand for hedging have an impact on prices such as the cross-currency bases?
  - New insight into the nature of frictions which drive international asset prices.

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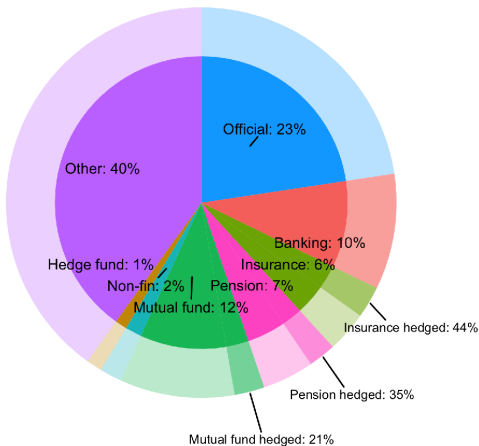
This paper builds a comprehensive dataset from the bottom up to answer these.

## Fact 1: Foreign investors show an increasing preference for USD securities



Adjusting for foreign-issued USD securities matters.

## Fact 2: Hedging of USD Exposure is substantial and heterogeneous



Very useful guidance when thinking about modeling international demand.

## Fact 3: Demand for hedging and CIP Deviations

- Mean-variance “foreign” investor who chooses between investing in 3 assets:
  1. Local currency:  $rx_{t+1}^{lb} = r_{t+1}^{lb} - rf_t$
  2. Unhedged dollar:  $rx_{t+1}^{\$b,NH} = rx_{t+1}^{\$b} - rx_{t+1}^{FX}$
  3. Hedged dollar:  $rx_{t+1}^{\$b,H} = rx_{t+1}^{\$b} + x_t$ 
    - Where  $x_t$  is the cross-currency basis.
- CIP basis is additional return to invest in USD asset when forgoing currency return:

$$\frac{\partial w_{US}^*}{\partial x} > 0$$

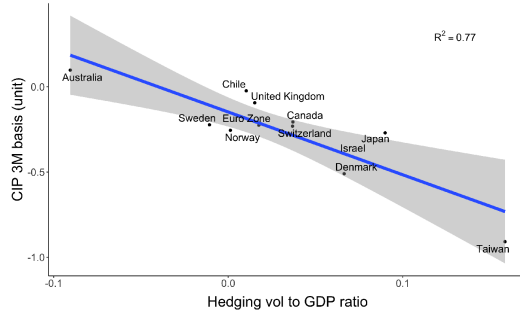
$$\frac{\partial w_{NH}^*}{\partial x} < 0$$

- **Key prediction:** when the CIP basis is more positive, the investor would optimally increase overall USD allocation and decrease unhedged allocation.

## Fact 3 continued: Empirical relation between CIP and Hedging

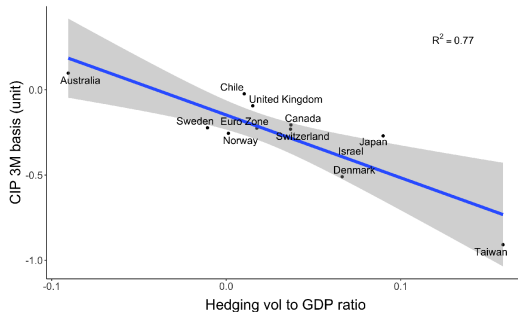
- **Theory:** When CIP basis is more positive (cheaper to hedge) investor would shift from unhedged dollar exposure to hedged dollar exposure.
- **Empirics:** Unhedged dollar exposure is positively correlated with CIP deviations.
  1. Investors aren't facing a perfectly elastic supply of FX hedging.
  2. Constraints on the suppliers (intermediaries) of hedging may matter.
- **Solution:** Introduce a simple segmented intermediary with a balance sheet constraint.
- **Prediction:** When there is high demand for FX hedging relative to the intermediaries balance sheet capacity, there will be a larger CIP basis in absolute terms.

## Fact 3 continued: Empirical relation between CIP and Hedging





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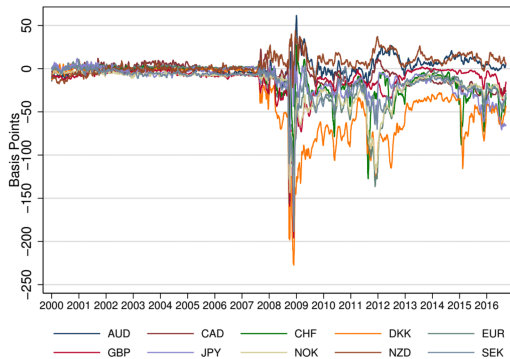


**Comment 1:** Each of these points is the intersection of supply and demand. How should we think about differences in constraints on the intermediaries?

## Comment 2: Heterogeneity in hedging demand

- There's an interesting note in the paper about what type of hedging matters for explaining CIP deviations:
  - “In our analysis of hedge ratios, we focus on actively managed industries, namely insurance, pensions, and mutual funds. To study the relationship between CIP basis and total hedging volume, we further include FX hedging done by banks to be comprehensive. Results are largely similar if banks are excluded, but are significantly different if only banks are included and other investors are excluded.”
- How should we think about the different types of intermediaries measured in this paper in the context of the model? Who represents supply and demand?
- Can the paper exploit the measurement of multiple agents hedging to control for other factors?
  - Use idiosyncratic sector specific shocks to hedging demand to measure the elasticity of CIP to hedging demand?

### Comment 3: Is it possible to explain the time-series of CIP?



- A lot of great work is done in this paper to show time-series patterns in hedging, including by institutional type.
- Can the paper use these time-series to explain variation in CIP deviations?
- Predictions in Liao and Zhang (2023) that can be directly tested using this data.

# Conclusion

- This is a great paper that I highly recommend reading.
- Constructing the data on dollar holdings and hedging from the bottom up is an important contribution to the literature on properly measuring capital flows.
- Paper provides many useful and important facts about dollar holdings, hedging, and their relation to CIP deviations.
- I'd like to see the paper better explain what hedging behavior of different intermediaries teaches us about time-series and cross-sectional variation in CIP deviations.