Arbitraging Covered Interest Rate Parity Deviations and Bank Lending

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NBER Emerging Markers (Peru, 2024)

This Paper

Proposes a channel through which deviations of the covered interest rate parity affects bank lending

Channel:

- ▶ When banks arbitrage these deviations, they change the composition of their lending.

Evidence of the channel in Peru:

- ▶ Bank's exchange rate and money market transaction suggests that they arbitrage CIP.
- ▶ Bank's funding in the currency required to arbitrage becomes scarcer/more expensive as deviations increase.
- ▶ Bank's with higher sensitivity shift currency composition of their lending in line with the arbitrage

The CIP Arbitrage Channel in Lending

Define the CIP as (equation (3)):

$$x_{t,t+1} = \frac{F_{t,t+n}}{S_t}(1 + y_{t,t+n}^{USD}) - (1 + y_{t,t+n}^{soles})$$

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▶ Use (overnight?) interbank rates as benchmark

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Measure of Bank's CIP arbitrage :

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The channel:

▶ It the CIP<0 and declines, banks want to borrow in dollars and lend/invest in soles

▶ If dollar financing is scarce, banks will divert funds away from lending

▶ Impacts the composition of bank's lending away from dollars

Should we also see an impact on lending rates?

Does it affect lending rates?
If yes, in which direction?

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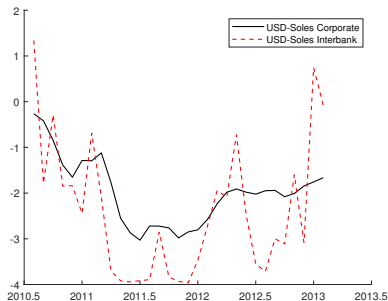# Does it affect lending rates?
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Bank's arbitraging channel should generate a negative correlation between Bank CIP and loan CIP.

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- ▶ Aggregate data on USD and Soles lending rates
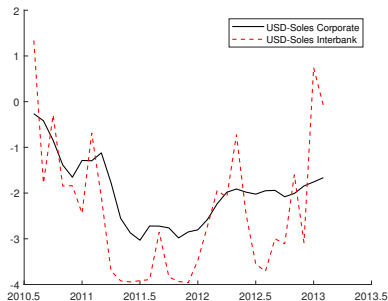- ▶ Interbank Rates in USD and Soles

- ▶ Interbank moves a lot, while loan differential quite stable
- ▶ Correlations of loans and interbank is 0.72

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Higher evidence of benchmark rates than the impact of banks' arbitrage

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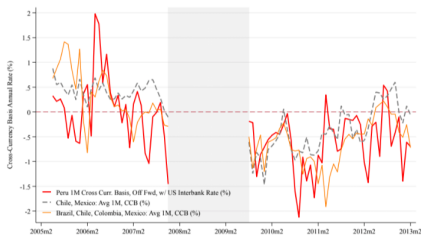 ► Makes sense, deviations are not eliminated

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How big is the impact on loans composition? Can bank arbitraging explain dollarization?
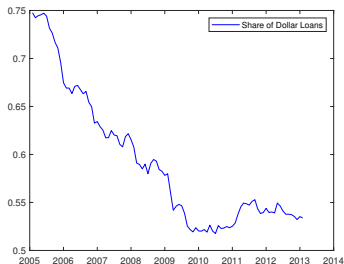
Impact of Bank's Arbitrage on Loan composition

" Banks that allocate 1 pp more of their assets to arbitraging a
1 pp increase in the cross currency basis increase their dollar
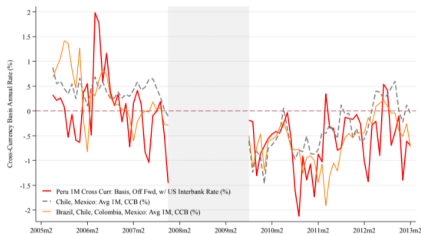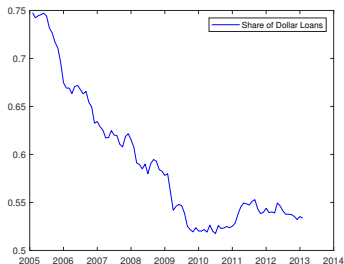lending by 11 to 44 pp relative to their soles lending"

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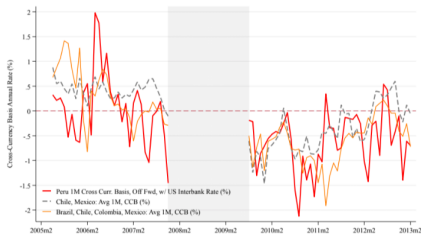
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- ▶ 2010 : Basis had a max of 0% and a min of -2%
- ▶ 2010: Dollarization of loans had a max of 52.64% and a min of 51.76%

Impact of Bank's Arbitrage on Loan composition

" 1 std increase in the basis makes banks that respond by arbitraging 1 std increase dollar lending relative to soles lending by 71 pp, making the share of dollar borrowing increase **by 2.48 basis points**" (0.0248%)

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Do we care about explaining trends and levels or wiggles?

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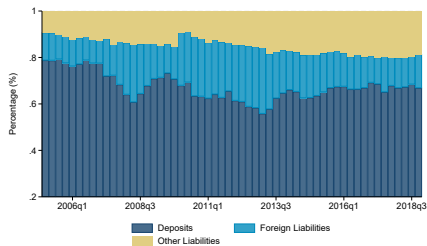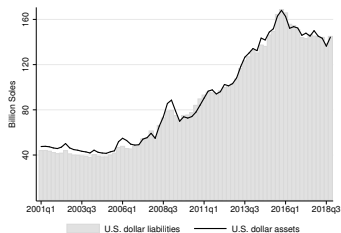
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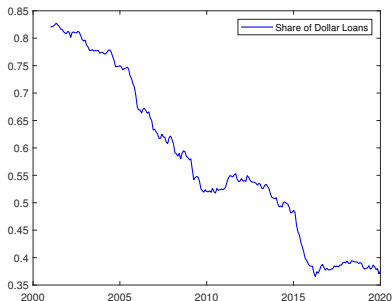
What explains levels?

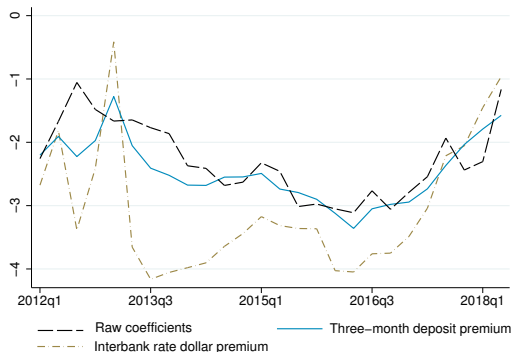Gutierrez, Ivashina and Salomao (2022): Deposit Dollarization + Bank Regulation

Conclusion

- ▶ Interesting paper for explaining (marginal) changes in dollarization
- ▶ Would be helpful to make the magnitude of this channel more clear

Does it affect lending rates?

Does it? Loan level estimates from Gutierrez, Ivashina and Salomao (2022)

- ▶ Different period (2012 - 2018)
- ▶ Correlation still positive (0.48)