FX market illiquidity and funding liquidity constraints, by Banti and Phylaktis, 2013

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Two foundational ideas

**Funding constraints** Financial intermediaries do arbitrage using capital. But:

- What if rational traders lack the capital, or face extreme payments for, the capital that’s required for doing arbitrage?
- This can constitute one impediment to market efficiency.

**Co-movement of liquidity** With equities, and with currencies, there are common factors in liquidity – and funding constraints can be one source of this co-movement.

Both ideas well understood on the equity market; now going into thinking about currencies. Very interesting field!
Funding and currency liquidity – a motivational argument

➤ One huge activity on the market is covered interest parity arbitrage

➤ Financial intermediaries require capital in order to setup CIP arbitrage – over and beyond the steps in the CIP formula itself.

➤ E.g. one may need to post collateral, pay MTM margins, have counterparties that one can trust, and so on.

➤ When that lubrication breaks down, CIP arbitrage breaks down.

➤ Example: In the global crisis.

➤ A possibility: Maybe in normal times, funding constraints are not a big deal, but under extreme stress they become an issue.
A concern with the funding measures of this paper

- The interest rate on financial firms’ CP (FCP) is not a funding constraint
- It is the cost of business.
- It just goes into the CIP formula and all is well.
- It does not hinder activity.
- There is a different point at which financial firms are unable to borrow, unable to take positions, are forced to closeout winning positions: That is where it’s a funding constraints story.
- The new literature on funding constraints is primarily about quantity, not price.
- An alternative view: Maybe there is a threshold for the FCP rate below which it’s a clean world, and above which funding constraints are showing up.
An example of a regression equation

\[
\Delta \text{illiq}_t = \alpha_0 + \alpha_1 \Delta \text{FCP}_t + \alpha_2 \text{VOL}_t + \alpha_3 \Delta \text{TS}_t + \alpha_4 \Delta \text{FF}_t \\
+ \alpha_5 \text{MKT}_{t-1} + \ldots + \epsilon_t
\]

\(\Delta \text{illiq}_t\) Change in liquidity  
\(\text{FCP}_t\) Change in CP rate  
\(\text{VOL}_t\) Global FX volatility  
\(\Delta \text{TS}_t\) Change in TED spread  
\(\Delta \text{FF}_t\) Change in FF rate  
\(\text{MKT}_{t-1}\) Lagged FX market returns
The tyranny of regressions

- Such regressions are riddled with bias.
- Reality is not linear; there are omitted variables; there are outliers.
- We are analysing the impact of $x_t$ upon $y_t$. Maybe the relationship is reverse.
- In all probability there is time-series structure with everything hitting everything. The obs are not i.i.d.
- This is not a technical problem (that some better estimation strategy can solve). It is a design problem.
- To talk about the impact of $x_t$ on $y_t$ we have to find plausibly exogenous shocks to $x_t$.
- Or, natural experiments where $t_1$ and $t_2$ are similar in most respects but differed in one thing - $x_t$ - for an exogenous reason.
Thank you.