



Figure 1. **Cross-border liabilities by type of counterparty.** Left panel shows cross-border debt liabilities by pairwise classification of borrower and lender. “Bank to bank” refers to cross-border claims of banks on other banks (BIS banking statistics table 7A minus 7B). “Bank to non-bank” refers to cross-border claims of banks on non-banks (BIS table 7B). Claims of non-banks are from BIS international debt security statistics, tables 11A and 11B). The right panel shows cross-border debt liabilities of developed countries according to BIS classification.

theoretical predictions are borne out empirically. Thanks to the closed-form solution given by our model, we can draw on a number of clear-cut hypotheses on the determinants of cross-border banking flows.

One prediction of our model is that episodes of appreciation of the US dollar are associated with deleveraging of global banks and an overall tightening of global financial conditions. Dollar shortages during crises have received a great deal of attention in the aftermath of the 2008 crisis (see, for instance, the BIS study by McGuire and von Peter (2009)). In our panel study of 46 countries we find that an *appreciation* of the local currency vis-à-vis the US dollar is associated with an *acceleration* of bank capital flows in the subsequent quarter.

Additionally, an implication of our closed-form solution is that both the *level* of bank leverage (which determines the rate at which one dollar’s increase in bank capital is turned into lending) and the *change* in the leverage (which determines the lending based on *existing*, or *infra-marginal* bank capital) should enter as “supply push” determinants of banking flows. We find strong support for these predictions in our panel study, thereby verifying that the factors driving bank flows can be found in the determinants of bank leverage. Given the close relationship between bank leverage and the VIX index of implied volatility of S&P