

evidence corroborates the findings in Adrian and Shin (2010, 2012) who pointed to the close association between the leverage of the Wall Street investment banks and the VIX index.

3.1.1 Global Factors

Our solution highlights the leverage and (book) equity of global banks that facilitate cross-border bank lending. As for the leverage of the global banks, our empirical counterpart should ideally be measured as the leverage of the broker dealer subsidiaries of the European global banks that facilitate cross-border lending. However, the reported balance sheet data for European banks are consolidated numbers at the holding company level that includes the much larger commercial banking unit, rather than the wholesale investment banking subsidiary alone. For the reasons discussed in Adrian and Shin (2010), broker dealers and commercial banks differ in important ways in their balance sheet management. The broker dealer sector much more closely mirrors the wholesale funding operations of the global banks. For this reason, we use instead the leverage of the US broker dealer sector from the Flow of Funds series published by the Federal Reserve as our empirical proxy for global bank leverage (*Global Leverage*) and global bank leverage growth (*Global Leverage growth*). To the extent that US broker dealers are influenced by the same forces as the broker dealer subsidiaries of the European global banks, we may expect to capture the main forces at work.

The other global variable predicted by the theory is the growth in the equity of global banks. Non-US global banks, especially European global banks, were active in US dollar intermediation, as mentioned above. To capture the role of global banks' equity, we use the change in the total book value of equity of the largest (top 10) non-US commercial banks by assets from Bankscope as a proxy for the growth in equity of international banks (*Global Equity growth*). Ideally, we would like to capture the equity of the broker dealer subsidiary of the bank, rather than the equity of the bank as a whole. However, provided that the book equity devoted to the wholesale banking business remains a steady proportion of the bank's overall equity, the use of our proxy would be justified. Bankscope has historical banking data from 1997, hence the variable *Global Equity growth* is available since 1998.