

in complementing limited domestic funding needs. After the onset of the global financial crisis in 2008, the external liabilities of the non-G4 economies recovered both in levels and as a ratio to GDP (reflecting partly the sharp decline of nominal GDP), whereas the G4 external liabilities have continued to fall, both in absolute terms and as a ratio to GDP.

## B. Price Measures

Having identified core and noncore liquidity in Section A, it is necessary to develop their corresponding price measures:

- **The price of core liquidity** is defined as the spread between domestic deposit rate for deposits with a maturity of up to one year and the 6-month interbank offered rate (Figures 8 and 9). Spreads, which are used to control for the monetary policy cycle, are standardized to account for cross-border differences in the statistical deposit coverage. A widening in the spread signals an increase in the relative marginal cost of deposit funding. At the global level, the price for global core liabilities is defined as the weighted average of individual countries' standardized spreads, with the weights corresponding to a country' core liabilities as a ratio of global core liabilities (Figure 6).
- **A Noncore Liquidity Price Index (NLPI)** captures the marginal cost of noncore funding. Conceptually, the price of noncore funding is relatively more difficult to identify, since it covers a variety of instruments (e.g., bank-issued commercial paper, repo deals, etc.), which may each be governed by different institutional arrangements. Thus, we include variables such as interest rate spreads, asset prices, credit volume as well as lending condition surveys to better capture the costs of noncore funding. The index is constructed using a dynamic factor model, which assumes that each chosen indicator can be decomposed into a common component and an idiosyncratic component (Box 1).<sup>14</sup> We define a price for noncore liquidity, both at the global and country-specific level. The country-specific and global NLPs are plotted in Figures 6–9.

Our price measures are assumed to measure the price of the entire stock of liabilities, which may have been accumulated over time, under different financial conditions (e.g., bonds that were issued with different coupon rates). The rationale for this is that, if all or part of these liabilities would need to be refinanced at a given moment in time, it is the financial conditions of that particular period that would determine the price for the funding necessary to refinance.

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<sup>14</sup>See Matheson (2011) for the full list of indicators included. The index, which includes quantitative measures to capture the general business climate (e.g., via loan officer surveys), is in standard deviations from the average, with the financial crisis of 2008 at four standard deviations.