nonbank financial institutions' balance sheets. This suggests a taxonomy that distinguishes "core" liabilities such as retail bank deposits that are relatively stable components of intermediary liabilities from "noncore" liabilities that co-vary more with the financial cycle (Chart 1).

A.   Quantity Measures

This paper defines the quantity of global liquidity as the sum of financial sector liabilities of the euro area, Japan, the United Kingdom, and the United States, henceforth referred to as the "G4" economies.[7]

Global liquidity is computed by aggregating the individual liquidity series across the G4 economies. To control for inflation and economic growth, the G4 aggregates are expressed in U.S. dollars and normalized by the (U.S. dollar denominated) nominal GDP of the four countries.[8] The quantity measures of global liquidity are shown in Figure 1, both in trillions of U.S. dollars and as a ratio to GDP, while country-specific measures are presented in Figure 2 (as a ratio to nominal GDP) and Figure 3 (in trillions of US dollars).[9] Financial liabilities are taken from the aggregate financial sector balance sheets captured in the flow of funds accounts of the respective economies. These balance sheets capture liquidity provided not only by banks but also by nonbank intermediaries who raise funding in the capital market on a collateralized basis. We also include money market funds as they have been known to play an important role in providing funding to financial intermediaries.[10] For completeness, we have also included the liabilities of insurance companies and pension funds (Chart 1). In particular, we explore the distinction between *core* (deposit-based) liquidity (funding) and *noncore* liquidity, sometimes referred to as "shadow banking" funding (see Appendix for more details).[11]

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[7]Given their size and central role in intermediating funds globally, liquidity in the G4 economies is a good proxy for global conditions. For example, the G4 have accounted for between 82 and 92 percent of total BIS external claims since 1995.

[8]In practice, a linear deterministic trend is removed from the quantity indicators, in line with the quantity theory of money, which assumes a linear relationship between nominal GDP and the stock of financial sector liabilities. The US dollars denomination is driven by the observation that much of financial sector liabilities are denominated in US dollars.

[9]In the case of Japan, liabilities (in trillions of dollars) are less volatile than when measured as a ratio to nominal GDP, because the Japanese nominal GDP declined several times over the sample period (Figure 5).

[10]Prime money market funds in the United States have held roughly 70 to 80 percent of their assets in the liabilities of the banking sector in recent years (see the IMF Global Financial Stability Report, September 2011, Chapter 1).

[11]We rely on flow of funds data from the central banks and classify funding based on the instruments involved. This is distinct from the measure presented by Poszar and others (2010), which is based on institutions. Despite these differences, our measures remain broadly consistent. Detailed dataset underlying the results of this paper are available from the authors upon request.