The global NLPI captures the unprecedented tightening of financial conditions during the global financial crisis (Figures 8 and 9). In 2008, for example, the global NLPI jumped by more than four standard deviations. The country-specific NLPI also peaked in 2008, with some important cross-country differences, particularly in Japan, where the price and quantity of noncore liquidity saw smaller fluctuations than in the other three G4 economies.

C. Liquidity Supply and Demand

Understanding the nature of liquidity shocks is crucial for drawing policy conclusions. It is useful to have in mind a model of the structure of the relationships between various parts of the financial sector and nonfinancial sector and thus, to identify who supplies and demands which kinds of funding.

For core liquidity, we assume that the nonfinancial sector is on the supply side, while retail banks and money market funds are on the demand side (see Chart 1). Thus, for example, a positive supply shock to core liquidity can stem from household investors shifting to less risky assets, such as bank deposits, in response to deteriorating fundamentals, (e.g., "flight-to-safety" behavior, lack of profitable investment opportunities, etc.). On the other hand, positive demand shocks to core funding can occur when banks are forced to raise more stable (and expensive) funding, possibly arising from regulatory changes or the drying up of alternative funding sources during financial market stress.

For noncore liquidity, financial institutions can be on both the supply and demand side of the transaction, as financial intermediaries may borrow in order to lend further. In addition, as collateral may be used multiple times—through the process of rehypothecation—our noncore liquidity quantity aggregate may involve a certain amount of double counting. Still, such double counting may be necessary to better capture changes in leverage within the financial system. A positive supply shock to noncore liquidity may stem from "inside" money creation, as global banks raise funding in wholesale market to leverage and expand their balance sheets against a backdrop of low prices for liquidity. An easing in the financial conditions can be associated with higher risk appetite (e.g., the Great Moderation) and pro-cyclical increases in leverage. A positive demand shock to noncore liquidity, on the other hand, can occur when financial institutions face high rollover funding needs in an environment of deteriorating economic fundamentals (falling GDP) and are willing to bid up the price of noncore funding.

Periods of persistent increasing liquidity *supply*—for example, driven by inside money creation, with growing liquidity (quantities) and falling interest rates (prices)—are often associated with increased risk taking and leverage in the financial sector, and hence may require macro-financial measures to counteract or discourage risk taking. On the other hand, periods of growing *demand* for liquidity may reflect expectations of higher return on investment, raising the demand for funds. This scenario may not require a strong regulatory response (though, admittedly, this change still requires attention if expectations of future