Liquidity Crises in the Small and Large

The financial crisis of 2008 was a liquidity crisis—that is, a period when some creditworthy households and firms could not obtain sufficient liquid (money) balances to complete necessary transactions. Most visible was the closure of the repurchase agreement (repo) market, in which both banks and non-banking firms alike typically exchange securities for short-term cash.

The Federal Reserve responded to the crisis by initiating an extraordinary set of assistance programs under the authority of Section 13(3) of the Federal Reserve Act.[1] An unusual aspect of these programs was that they sought to assist individual firms or industries. In normal times, the Federal Open Market Committee (FOMC) sets a target for the federal funds rate and enforces it by changing the size of the Fed's balance sheet to change the aggregate amount of liquidity that it provides to financial markets. The allocation of liquidity among households and firms, in turn, is determined by financial markets. Beyond the liquidity crises of individual firms, an interesting question is whether the *aggregate* amount of liquidity in the economy was appropriate before and during the crisis: Was there a liquidity crisis in the "large" as well as the "small"?

The recently updated Monetary Service Indexes (MSI) published by the Federal Reserve Bank of St. Louis provide some evidence.[2] These indexes build on the idea that monetary assets (including checkable deposits, saving deposits, small-denomination time deposits, and money market mutual funds [MMMF]) furnish "monetary services" that households and firms use to buy and sell goods and services. Some assets are immediately media of exchange (e.g., currency), while others are not (e.g., saving deposits and small-denomination time deposits). The MSI are chained-weighted index numbers (similar to those used to measure gross domestic product) that combine observed market data on financial asset quantities and own rates of return in order to measure these flows of monetary services. The own rates of return received by households and firms on their monetary assets, compared with broader market rates of return, provide measures of the opportunity cost of the monetary services furnished by each asset. Economic and statistical theory provides specific mathematical functions with which to calculate the MSI as described in Anderson and Jones (2011).

The chart shows five MSI. (These MSI differ with respect to the number of included assets.[3] The data are log levels, each normalized to 1.0 in August 2001.) MSI-M1 contains only currency and checkable deposits, and MSI-M2M includes the assets in MSI-M1 plus savings deposits and retail MMMF; both leveled out in 2004 as the FOMC tightened its policy stance and later

increased sharply during the autumn of 2008. MSI-MZM includes the assets in MSI-M2M plus institution-type MMMF; it accelerated beginning mid-2007. MSI-M2 includes the assets in MSI-M2M plus small-denomination time deposits, and MSI-ALL includes all the assets of MSI-M2 plus institution-type MMMF. These broader series grew more steadily both before and during the crisis. Although the evidence is mixed, the MSI overall suggest that monetary policy was accommodative before the financial crisis when judged in terms of liquidity.

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[1] These programs are reviewed by Anderson and Gascon (2009, 2011).

[2] See Anderson and Jones (2011). The Bank of England publishes similar measures for the United Kingdom (Hancock, 2005). The use of index numbers to measure the macroeconomic concept of money began with William Barnett; see Barnett and Serletis (2000) and references therein.
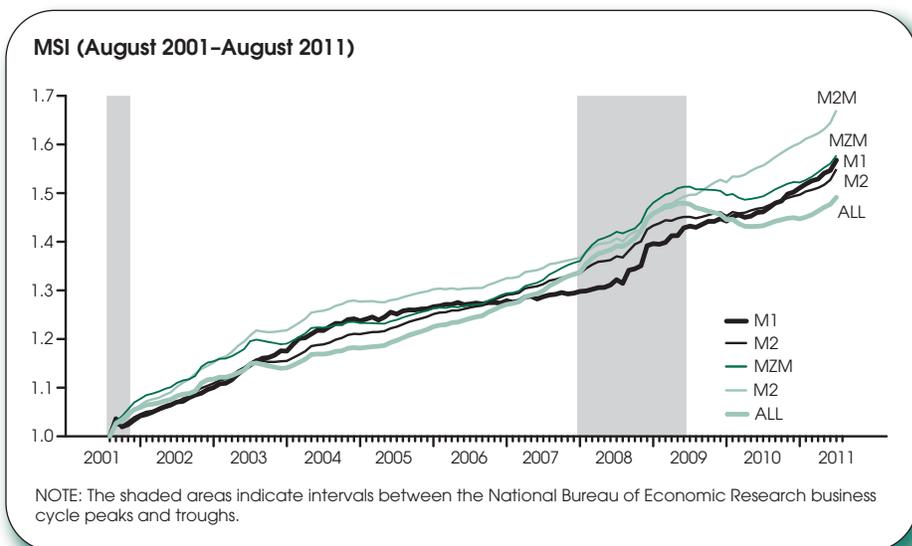
[3] See Anderson and Jones (2011) for details.

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MSI (August 2001–August 2011)

NOTE: The shaded areas indicate intervals between the National Bureau of Economic Research business cycle peaks and troughs.

Views expressed do not necessarily reflect official positions of the Federal Reserve System.