



CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

Liquidity Shortage: Houston, We Have a Problem

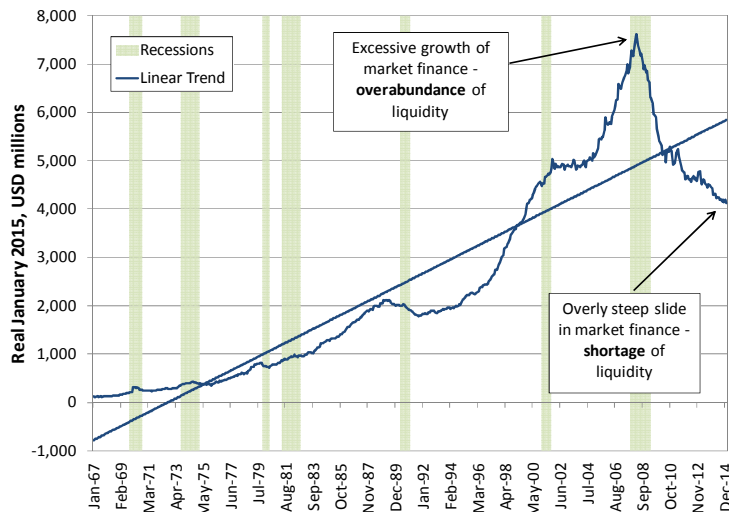
Lawrence Goodman

February 25, 2015

In the movie *Apollo 13*, Tom Hanks – as Commander Jim Lovell – discovers a damaged oxygen tank which threatens the viability of the mission and lives of those aboard the space craft. In communicating with NASA, he utters the now famous phrase “Houston, we have a problem.”¹

Although extension to markets would be a bit alarmist, the world is plagued by a shortage of financial market liquidity despite an overabundance of central bank liquidity.² We do have a problem.

Figure 1. Plunge in Market Finance (Shadow Banking) Overshoots



Note: The CFS definition of market finance includes: money market funds, repurchase agreements, and commercial paper.
Source: Federal Reserve, Bloomberg LP, and Center for Financial Stability.

Emerging Markets, Small Doors and Liquidity

A shriveling of liquidity (or an inability to move assets without unusual jumps or drops) puts markets and economies at risk for excessive amplification of minor shocks and a resultant major loss of confidence. Although seemingly arcane, market liquidity is of vital importance to foster financial stability.

Many of us with emerging markets experience are acutely sensitive to this problem. In many instances, stretching from Argentina to Russia, liquidity shortfalls exacerbated market swings and economic downturns. Conversely, we are also aware that a slow and sustained deepening of financial markets can facilitate the creation of strong and sustainable economic growth with examples spanning from Korea to Mexico to Poland.

¹ The quote “Houston, we have a problem” stems from the movie, *Apollo 13*. Jim Lovell actually said “Houston, we’ve had a problem” (see <http://apollo13.spacelog.org/page/02:07:55:19/>).

² Lawrence Goodman, “End of the Free QE Lunch,” Center for Financial Stability, February 18, 2014.



CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

Today, challenges rest firmly in advanced economy markets – which include the US, Europe, and Japan.

Threats from illiquid markets are often especially acute toward the end of momentum trades or herding investment behavior patterns. The trigger to reverse unidirectional investment trends often arises during a period of overstretched valuations (2000) and / or the reversal of an easy monetary stance (2007).

What takes years to develop can reverse quickly with violent price swings.

For instance, a persistent flow of funds to a particular market is analogous to a succession of individuals entering through a small door into an increasingly crowded room. If there is a fire, it would be impossible for all of the individuals to exit swiftly. In financial markets, the smaller the door the more violent is the price adjustment in the aftermath of the trigger.

Present Day Examples in Advanced Economies that Can Rattle Major Markets

Cracks in financial markets from this phenomenon are already evident and sadly present in a wide range of markets. Specific examples:

US Treasury Market: On October 15, the deepest and most liquid market in the world demonstrated a six standard deviation move in less than two hours, a move that happens once in 506,797,346 days! It is impossible to suggest that this supersized move in the US Treasury market was due to downward assessment of economic expectations. Economic expectations shift weekly – if not daily. Clearly, a shift in the structure of the US Treasury market and substantial reduction of private sector market makers is at the core of recent complications. Similarly, this issue extends well beyond simply the sovereign debt market for US securities, as a result of the interconnectedness among markets and the unique role for Treasury debt as benchmark securities. To be sure, a sustained “flash crash” in the world’s leading fixed income market could readily unleash a pronounced slowdown of the global economy, or worse.

Group of 10 (G-10) Currency Trading: Even traders in the gigantic G-10 foreign exchange market are complaining regarding problems related to the lack of liquidity. For instance, Bloomberg reported that “prices on a screen can no longer be trusted. No one knows what a price is,” according to Brad Schrueder, a director of foreign exchange sales at Bank of Montreal.³ An inability of market participants to trust prices on the screen will inevitably result in higher fees passed on to corporation and individuals, as well as dent the life pulse of the global economy, namely trade and investment. **With volatile and vanishing G-10 exchange rate prices, cross border economic activity will shrivel.**

Corporate Bonds: The flexibility afforded by reliance on financial markets rather than bank finance is one of the oft cited advantages of the US financial system vis-à-vis Europe for access to credit. The corporate bond market is at the heart of this success story. Yet, a recent report by BlackRock highlights how “the secondary trading environment for corporate bonds today is broken.”⁴ **Data suggest that**

³ Ari Altstedter, “Traders Once Starved for Volatility Now See Too Much,” *Bloomberg*, January 22, 2015.

⁴ Barbara Novick, et al., “Corporate Bond Market Structure: The Time For Reform Is Now,” *Viewpoint*, September 2014.



CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

diminished corporate bond liquidity is in part due to limited participation by market makers. For example, debt holdings by primary dealers are down by 80 percent since a peak in October 2013.⁵

These examples signal that the probability of an accident is high and the stage is set for an adverse event meeting with an outsized impact on markets and possibly economies.

[CFS Monetary Data Help Measure and Monitor the Phenomenon](#)

CFS Divisia data help measure and monitor market finance.⁶ Market finance (or what some dub Shadow Banking) provides the fuel for corporations in the form of commercial paper and liquidity for financial markets via money market funds and repurchase agreements.

Now, the reduction of market finance is excessively steep (see Figure 1). The CFS measure of market finance is down a stunning 46% in real terms since its peak in March 2008! This phenomenon starves financial markets from needed liquidity and is detrimental to future growth by exposing the economy to potentially unnecessary shocks. In fact, the reduction of available market finance shows no sign of abating with a series of successive drops from the beginning of the crisis to the latest CFS monetary data available through January 2015. This marks the 82nd monthly of decline.

Figure 2. CFS Measure of Market Finance (Shadow Banking), Real October 2014, USD millions

<u>Peak</u>	<u>Fall</u>	<u>Decline</u>
1970	-25%	16
1974	-17%	16
1979	-13%	7
1982	-5%	3
1989	-16%	29
2001	-5%	11
2008	-46%	82
Avg ex '08	-10%	13

Note: "Decline" is defined as the cyclical peak-to-trough in months.

Source: Center for Financial Stability.

Of course, market finance grew too large in advance of the recent financial crisis. It reached historic highs prior to the crisis and facilitated many well documented excesses. Yet, **since 2011, the needed correction in reducing the role of market finance in the economy has fallen too far.** For example, market finance typically contracts coincident with recessions, but by an average of only 9% or 1/5th less than usual. Similarly, the average peak-to-trough associated with recessions is usually a scant 13 months; not 82 and counting.

⁵ Liz Capo McCormick and Daniel Kruger, "If Trading Bonds Is Hard, Think About Pain When Rates Rise," *Bloomberg*, February 2, 2015.

⁶ The CFS definition of market finance includes: money market funds, repurchase agreements, and commercial paper.



CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

So, liquidity conditions can be evaluated on a monthly basis by monitoring CFS Divisia data. The data are released on a strict schedule at 9:00 AM ET on typically the third Wednesday of each month. A schedule of future release dates is listed in Appendix 1.

Figure 3. Major CFS Monetary Aggregates and Reserve Balances, % year-over-year

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>Sep-14</u>	<u>Oct-14</u>	<u>Nov-14</u>	<u>Dec-14</u>	<u>Jan-15</u>
CFS DM4	-5.0%	-0.7%	0.7%	6.8%	1.9%	2.1%	1.9%	1.7%	1.7%	2.1%	2.9%
CFS DM4-	-5.1%	-0.5%	2.6%	6.8%	2.4%	3.1%	2.9%	2.7%	2.9%	3.1%	3.6%
CFS DM3	-2.4%	0.2%	3.4%	6.7%	2.3%	3.5%	2.9%	3.0%	3.2%	3.5%	4.0%
Reserves	35.0%	-5.3%	46.5%	-2.1%	60.8%	4.8%	20.3%	13.3%	2.3%	4.8%	7.2%

Source: Center for Financial Stability and Federal Reserve Board (total reserves of depository institutions).

Appendixes

Upcoming Release Calendar for CFS Divisia Data

Accessing CFS Divisia Data

Upcoming Release Calendar for CFS Divisia Data

- March 18, 2015
- April 22, 2015
- May 20, 2015
- June 17, 2015
- July 22, 2015
- August 19, 2015
- September 16, 2015
- October 21, 2015
- November 18, 2015
- December 16, 2015
- January 20, 2016

Accessing CFS Divisia Data

We are delighted to announce that our monetary and financial statistics are now available via the Bloomberg terminal.

Bloomberg users can access the CFS data by any of the four options:

- 1) {ALLX DIVM <GO>}
- 2) {ECST T DIVMM4IY<GO>}



CENTER FOR FINANCIAL STABILITY

Dialog • Insight • Solutions

3) {ECST<GO>} --> 'Monetary Sector' --> 'Money Supply' --> Change Source in top right to 'Center for Financial Stability'

4) {ECST S US MONEY SUPPLY<GO>} --> From source list on left, select 'Center for Financial Stability'

CFS Divisia indices can also be found on our website at http://www.centerforfinancialstability.org/amfm_data.php. Broad aggregates are available in spreadsheet, tabular and chart form. Narrow aggregates can be found in spreadsheet form.

About CFS Money Supply

CFS Divisia monetary measures were developed under the direction of Professor William A. Barnett - one of the world's leading experts on monetary and financial aggregation theory. CFS money supply data are essential, especially since the Federal Reserve ceased production of M3 in 2006. Similarly, Divisia measures are superior, as they accurately weight the services of various classifications of money from cash to leverage in the shadow banking system.

For more information about CFS Divisia please contact:

William A. Barnett (Methodology)

(212) 626-2660 / wbarnett@the-cfs.org

Lawrence Goodman (Policy and Market Application)

(212) 626-2660 / lgoodman@the-cfs.org

Next release – December 17, 2013 at 9:00 A.M. ET

Additional information:

www.CenterforFinancialStability.org

The Center for Financial Stability (CFS) is a private, nonprofit institution focusing on global finance and markets. Its research is nonpartisan. This publication reflects the judgments and recommendations of the author(s). They do not necessarily represent the views of Members of the Advisory Board or Trustees, whose involvement in no way should be interpreted as an endorsement of the report by either themselves or the organizations with which they are affiliated.