

Economic Outlook

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Shelter from the Storm

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The lessons of the 2008 economic collapse have not gone unlearned. That is both a blessing and a curse. By taking steps to reduce exposure to risk, investors, business managers, and financial market intermediaries are actively slowing growth. Businesses today hold more cash and are more circumspect about hiring, investing, and expanding than they were in the previous recovery. But what's perhaps less well appreciated is that the resulting increase in liquidity and financial flexibility not only helps to insulate businesses and lenders from the impact of a deep recession, but actually reduces its probability.

The depth of a contraction depends not only on the size of the macroeconomic shock, but also the broader economy's vulnerability to it. It was no coincidence that the economic collapse of 2008 was immediately preceded by a 20 year period known as the "Great Moderation." Between the mid-1980s and 2007, the variation in quarterly GDP growth fell by half and inflation variability declined by two thirds.¹ The substantial decline in macroeconomic volatility made economic planning easier, reduced risk premia and implied volatilities, and delivered many other obvious economic benefits. However, as Fed Chairman Alan Greenspan recognized at the time, the reduction in macroeconomic volatility carried its own risks. Greenspan explained that a "decline in perceived risk is often self-reinforcing in that it encourages presumptions of prolonged stability and thus a willingness to reach over an ever-more-extended time period."²

The longer the Great Moderation lasted, the more reasonable it was for market participants to believe it was permanent.³ This belief, in turn, led to an underestimation of tail risks and a willingness to borrow more at shorter maturities, become less liquid, and increase overall dependence on external finance. While more conservative portfolios, more liquid balance sheets, and less lending have slowed economic growth rates, they have also reduced vulnerabilities. An external shock is likely to generate a much smaller macroeconomic response today than it would have five years earlier.

Benchmark Interest Rates and the Price of Safety

The most obvious indicator of the change in risk perceptions is the price of safety, as measured by the yields on high grade sovereign debt. The 10 year yields on debt issued by the U.S., U.K., Swiss, German, Danish,

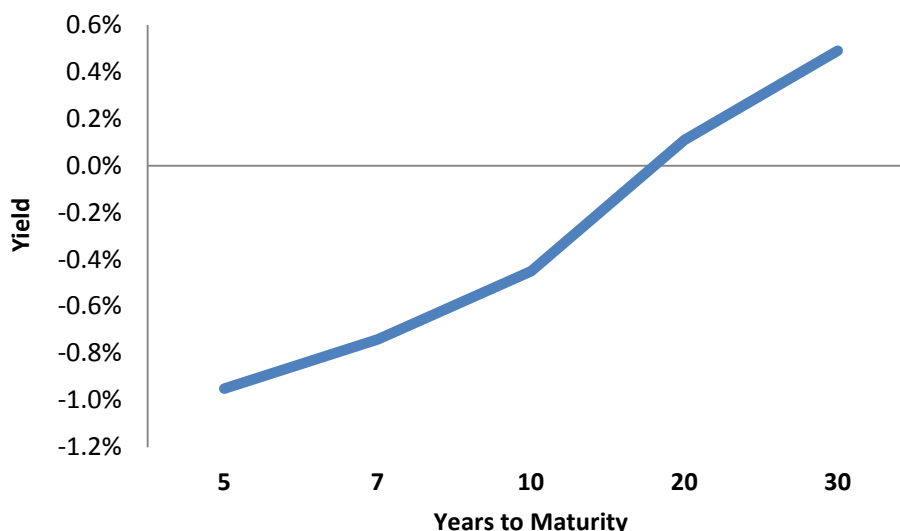
¹ Bernanke, B. (2004), "The Great Moderation," Meetings of the Eastern Economic Association, February 20, 2004.

² Greenspan, A. (2005), "Economic Flexibility," National Association for Business Economics Annual Meeting, September 27, 2005.

³ Bean, C. (2009), "The Great Moderation, the Great Panic and the Great Contraction," Annual Congress of the European Economic Association, August 25, 2009.

and Swedish governments have all declined by more than 70% over the past five years, from just below 5% to close to 1.5%, on average.⁴ While Japanese government debt has yielded 1.5% or less for the better part of 10 years, this has occurred in the context of persistent deflation. With the exception of Switzerland, the inflation rates in these six economies have remained reasonably high over the past few years and at times exceeded 3%. The result has been significantly negative real interest rates (nominal yield net of expected inflation). As shown in Figure 1, yields on inflation-protected securities are negative for maturities up to nearly 20 years. This means that after accounting for changes in purchasing power, investors are so risk averse that they are willing to pay the U.S. Treasury 1% per year to store their money.

Figure 1: U.S. Treasury Inflation-Protected Securities (TIPS) Yield Curve



Source: U.S. Treasury

The decline in the global pool of assets considered to be credit-risk-free has shrunk in recent years, which has driven up the price of safety at the same time safety has become most valued. According to the International Monetary Fund (IMF), the supply of “safe” sovereign assets has fallen by \$4.6 trillion due to heightened concerns about the solvency of governments in Greece, Spain, Portugal, Italy and Ireland.⁵ The Federal Reserve and Bank of England have further reduced the supply of safe assets through quantitative easing and the Maturity Extension Program. Part of the rationale for these programs is to reduce the term and credit risk premiums and make holding safe assets so unattractive that market participants have no choice but to move into riskier assets like equities.⁶ Yet, the memories of the 40% decline in risk asset values in 2008 and worries about the durability of the global recovery have caused investors to simply pay a higher price for safety through negative real yields.

The third major driver of the increase in the price of safety is the greater difficulty and expense of borrowing high-grade securities. When a household invests in a Treasury-only mutual fund, for example, the securities purchased on behalf of the fund generally do not sit idly in an account. They can and are lent out to serve as collateral for funding or to cover short positions (reverse repos). This lending generates incremental risk for the investor in that the borrower may fail to return the asset. To alleviate this risk, the intermediary can refuse to lend the security, foregoing the incremental interest income to eliminate the (however small) risk that the security is not returned. A recent IMF paper estimates that the amount of securities loaned to serve

⁴ Capital IQ, accessed June 28, 2012.

⁵ International Monetary Funds, *2012 Global Financial Stability Report*, Chapter 3.

⁶ Sack, B. (2009), “The Fed’s Expanded Balance Sheet,” December 2, 2009.

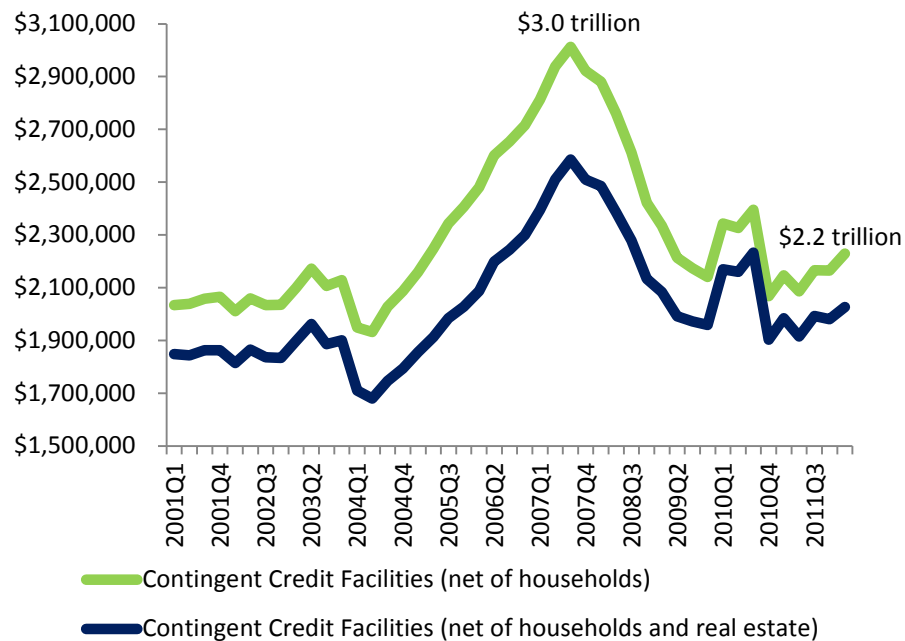
as collateral fell by \$700 billion between 2007 and 2010.⁷ When considering new restrictions on the ability to re-pledge loaned collateral, the IMF paper estimates that the effective decline in safe assets has been closer to \$4.2 trillion.

While yields on high grade sovereign debt reflect the price investors are willing to pay for safety, it is not at all clear that it is “safe” to buy 10-year Treasury notes yielding -0.5% in real terms. Investors are locking in a decline in purchasing power and remain exposed to swings in sentiment that could generate substantial losses if forced to sell prior to maturity. The search for safety has also caused investors to move into precious metals and productive commodities at prices that generate similarly skewed risk-return profiles.

Corporate Cash Accumulation

The experience of 2008 has made banks and nonfinancial businesses more conscious of the liquidity risks they face, which has increased the marginal value of cash. Cash balances at FDIC-insured banks stood at \$1.3 trillion at the end of March 2012, more than 3x the \$434 billion these institutions held five years earlier.⁸ According to the most recent *Flow of Funds* report, cash and cash equivalents on nonfinancial businesses’ balance sheets totaled a record \$2.5 trillion as of March 31, 2012, about 14% (\$314 billion) more than five years earlier. The European Central Bank (ECB) estimates that European corporate cash holdings are even larger, at more than €3 trillion.⁹

Figure 2: Unused Loan Commitments Made by FDIC-Insured Banks



Source: FDIC

Much of the increase in businesses’ cash positions can be explained by banks’ increased sensitivity to their own liquidity needs. Commercial businesses rely on bank lines of credit and revolving credit agreements to manage liquidity risk. In 2007-2008, banks realized that business customers would draw on these facilities at the same time that the wholesale funding necessary to make good on these commitments was most scarce.

⁷ Pozsar, Z. and Singh, M. (2011), “The Nonbank-Bank Nexus and the Shadow Banking System,” IMF Working Paper.

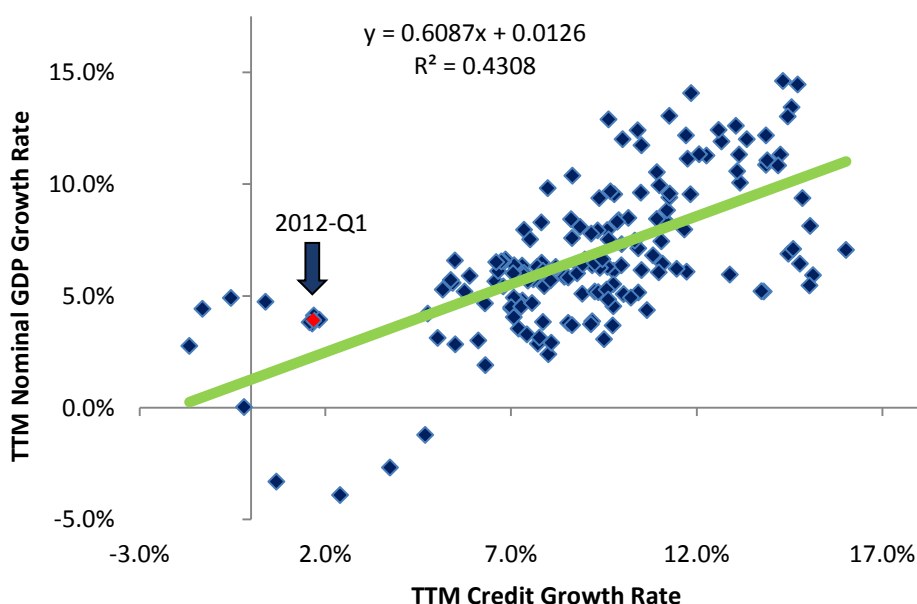
⁸ FDIC *Quarterly Bank Profile*, June 2012. This is partly a reflection of the increase in the Fed asset holdings, which generates liabilities in the form of newly created bank reserves.

⁹ ECB May Bulletin.

Banks have responded by reducing the size and availability of lines of credit which has effectively forced commercial businesses to “self-insure.” As shown in Figure 2, unused lines of credit to commercial businesses have declined by \$782 billion since 2007 (by \$550 billion if excluding real estate). Businesses have to hold additional cash simply to fill the resulting liquidity gap.

Banks are also significantly better capitalized than they were in 2007. The results of a recent Fed stress test in March found that banks’ capitalization levels *after* \$534 billion of cumulative losses from a hypothetical recession would be better than they were in 2008.¹⁰ In addition to retaining more earnings, banks have deleveraged substantially. The Fed estimates that financial institutions’ credit market borrowing has declined by \$2.6 trillion since 2008.¹¹ While deposits have increased to an all-time high of \$11 trillion, net loans as a percentage of deposits have fallen to an all-time low of 70.4%, more than ten points below the historical average.¹² The decline in financial institutions’ credit market borrowing and the decline in loans funded by deposits have been reflected in credit aggregates and GDP, both of which have grown very modestly since 2009 (see Figure 3).

Figure 3: Credit Market and Nominal GDP Growth Rates, 1969-2012



Source: Fed Flow of Funds

Industrial Capacity Has Declined Since 2009

Business investment is generally low when risk premia are high.¹³ The recent experience has been no exception. Businesses would like to adjust capital stocks – property, plant, equipment, and technology – to meet demand. There is an obvious asymmetry in that it is much easier to increase capacity to meet rising demand than it is to disinvest in the face of declining sales. A business with a factory operating at 50% capacity, for example, cannot easily close half of the plant; even if it could, the financing used to acquire the

¹⁰ *Comprehensive Capital Analysis and Review 2012: Methodology and Results for Stress Scenario Projections*, March 13, 2012.

¹¹ Fed Flow of Funds, L. 107 Credit Market Instruments.

¹² FDIC, *QBP*.

¹³ Cochrane, J. (1991), “Production Based Asset Pricing and the Link Between Stock Returns and Economic Fluctuations,” *Journal of Finance*.

physical capital generally creates fixed payment obligations that must be made regardless. The costly reversibility of investment is what makes the option to invest less risky than investment already in place.¹⁴ This not only discourages investment in uncertain times but also raises the average cost of capital for businesses with a large installed capital base.

Over the past three years, U.S. industrial capacity has shrunk by 1.6% (depreciation has exceeded gross investment) even as industrial production has increased by 16%. Rising production and contracting capacity have combined to push capacity utilization to 79% in May, which is equal to its 20-year moving average. At current trends, capacity utilization would exceed 80% at the end of the year – a level generally associated with elevated inflation risk that has triggered Fed tightening in 1994 and 1999. Capacity utilization above historic averages is entirely inconsistent with alternative measures of resource slack, like unemployment rates, which sit at or near 30-year highs. Rather than invest in new capacity and payrolls, business managers have chosen instead to prepare for the worst and reduce their fixed cost base.¹⁵

Conclusion

The magnitude of the macroeconomic fallout from a shock depends on the economy's vulnerability to it. The "Great Moderation" bred complacency about macroeconomic risk and led households, businesses, and lenders to rationally underestimate the probability of extreme loss. Since then, the price of safety and marginal value of cash have grown exponentially. Since 2008, investors have focused on "storing" their savings rather than allocating it to productive use; businesses have chosen flexibility over growth at every turn. The bad news is that the cumulative effect of these decisions has been to slow the recovery, as cash gets recycled into cash instead of new hiring and investment. The good news is that greater awareness and appreciation for risk have created systemic shock absorbers that did not exist five years ago.

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¹⁴ Zhang, L. (2005), "The Value Premium," *Journal of Finance*.

¹⁵ All data from *Industrial Production and Capacity Utilization - G.17* - Federal Reserve.