CASE Network E-briefs

4/2008 May

Recent Turmoil in Financial Markets – Sources and Systemic Remedies

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A growing number of indicators suggest that the U.S. economy is heading for 'stagflation', i.e. a period of economic stagnation coupled with inflation. Personal consumption expenditures, which comprise almost three-quarters of gross domestic product (GDP), are expected to recede, as implied by sharply declining indexes based on consumer spending plans. The consumer confidence index has fallen from its peak level of 110 in July 2007 to 62.3 in April 2008. More importantly, the University of Michigan consumer sentiment index that, in addition to consumer spending on goods and services, includes survey questions about household financial plans, scored merely 62.6 in April, falling well-below its level of 82 during the 2001 recession. The recessionary outlook is undersored by a plunge of housing starts by 59 percent between their peak level in January 2006 and April 2008, as well as a decline in existing home sales by 31 percent since October 2005. On top of the gloomy income outlook, inflation based on the consumer price index rose in April 2008 by almost 4.0 percent over a one-year period; gold futures have already exceeded 1000 dollars per ounce in April before falling to 900 in mid-May; and the dollar has fallen to record low levels against the leading international currencies.

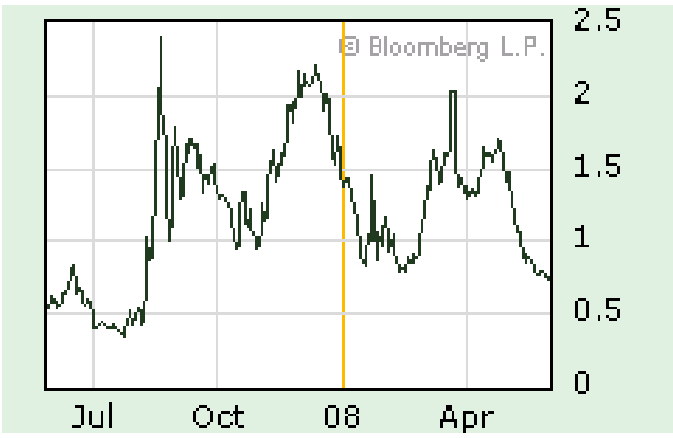
The current economic slowdown can only partially be attributed to long-term cyclical corrections. Without doubt, the proliferation of economic pessimism stems mainly from the severe liquidity and market risk crises in the financial system. It all dates back to the subprime mortgage crisis that was initially unveiled in mid-August 2007. Loans to subprime borrowers, i.e. those with low credit scores due to uncertain (undocumented) income prospects and high default risk, comprised 14 percent of total value of all U.S. mortgages recorded at the end of 2007. However, in 2006 subprime loans constituted 40 percent of new mortgage originations (comparing to 9 percent in 2001). Such lending extravaganza to high-risk borrowers stemmed from a unique combination of excessively easy monetary policy in the U.S. and vast liquidity in international financial markets seeking safety and stability in U.S. securities, as well as financial engineering that enabled to devise the derivatives allowing for transferring mortgage risk to financial market investors.

During 2003-2005, the U.S. Federal Reserve orchestrated an unprecendented monetary expansion gearing the federal funds target rate to as low as 1.0 percent in the period of July 2003 – July 2004. As a result, banks were able to borrow from each other large amounts of cheap reserves at negative real interest rates. Such cheap money and low interest expenses gave banks incentives to raise interest income by expanding their lending base thus reaching out to more risky borrowers of long-term credit. Net interest or profit margins became wider. The elevated credit risk was hedged by securitization in the form of collateralized debt obligations (CDOs) - in particular collateralized mortgage obligations (CMOs)- subsequently sold to investors at high premiums. By definition, CDOs are structured credit products backed by pools of other assets with risk divided into different classes or tranches. Their total outstanding value in mid-2007 soared to 900 billion dollars. In hindsight, the system seemed to function quite well. Mortgage brokers searched for high-risk mortgage borrowers luring them to borrow at initially low, so-called 'teaser' adjustable rates without sharing with them predictable, honest information about a severe burden of sharply rising repayments resulting from scheduled future rate resets. In essence, the banks were generating mortgages to high risk borrowers, facing no obstacles to transfer the risk to market investors via high-yielding CDOs.

CDOs and other new derivative products (including CDO-squared derivatives, which are derivatives on CDOs) became very attractive investment vehicles. The interest income on these high-yielding securities was well above the interest on the U.S. Treasury bonds, particularly since the yields on long-term U.S. treasuries were depressed by large international capital inflows. Mortgage-backed securities were perceived as relatively low-risk investment vehicles as long as the global demand for them was very strong. Investors encountered implicit risk guarantees on CDOs, as these complex derivatives were identified as relatively safe by the credit rating agencies and by leading international financial analysts. Among others, the International Monetary Fund reports on global financial stability presented a very optimistic outlook for the future growth of all classes of CDOs; the IMF dramatically reversed this opinion only in its October 2007 report. Moreover, liquidity in international financial markets has reached spectacular levels. Based on the IMF estimate, global capital assets in mid-2007 amounted to 76 trillion dollars (almost 6 times larger than the 2007 U.S. GDP of 13.8 trillion). The majority of these assets were held by pension funds (23 trillion), mutual funds (19 trillion), insurance companies (18 trillion), sovereign wealth funds (4 trillion, yet fast-growing), hedge funds (3 trillion) and private equity funds (2 trillion). From the side of these well-endowed institutions, the demand for high-yielding CDOs was very high, until mid-August of 2007 when the subrpime mortgage crisis became apparent. Without doubt, the high-risk mortgage lending practices contributed to a significant housing market bubble, which eventually had to burst. On a positive note, the expansion of mortgage lending to all classes of borrowers led to a rise in the home-ownership rate of U.S. households from its lowest level of 63.8 percent in 1994 to the record of 69.2 percent in 2004.

It is also worth noting that the current global financial crisis was originally engendered by the problems with credit risk. But it has quickly reverberated across other classes of risk, ultimately contributing to proliferation of market risk, which can be proxied by a sharp increase of the VIX index (that captures volatility of options on S&P 500 stocks) from the daily average of 13.25 during the January-July 2007 period to 23.25 during the August 2007-March 2008 period.

Graph 1: TED spread (3-Month LIBOR minus 3-Month US T-bill rates). May 29, 2007 – May 29, 2008 daily series



Source: Bloomberg.

As noted above, the Federal Reserve abandoned its monetary expansion at the end of 2005 when it began tightening up credit and increasing interest rates. Between January and July of 2007 the federal funds rate target was maintained at the highest level of 5.25 percent. The inevitable subprime mortgage crisis turned out to be very painful to banks and

borrowers. The ARMs rates increased considerably, leading to the explosion of home foreclosures. As reported by the Federal Reserve, as many as 640,000 foreclosures were initiated only in the first half of 2007, exceeding a six-year average by 42 percent. Inventories of existing homes increased from 3.5 months supply as of December 2004 to 12 months supply as of January 2008. At the same time, home sales as well as new constructions have plunged considerably, as noted above.
By no means is this painful chain reaction over. The scheduled resets on subprime mortgages are expected to peak only in October 2008. Simultaneously, the de facto risks embedded in CDOs have by far exceeded their initial yield premia, which has contributed to the current erosion of these derivative instruments. Without doubt, CDOs have proven to entail more severe asymmetric information associated with the 'adverse selection problem' than that initially implied by yield premia on CDOs over risk-free treasuries.

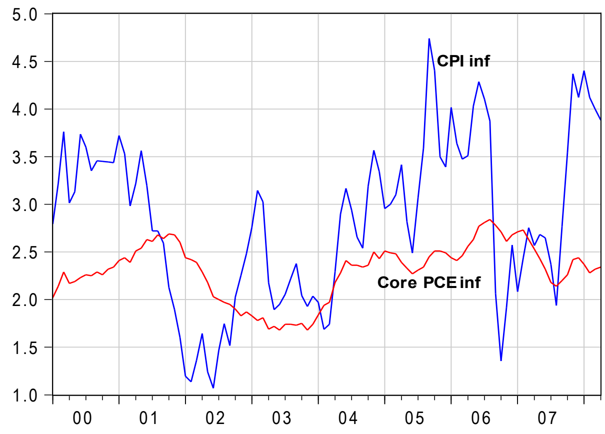
The opportunities of securitization of risky assets have also dimished, contributing to large widely-reported losses of financial institutions. The propagation of credit risk is best illustrated by the widening TED (Treasuries-over-eurodollars) spread measured by the difference between 3-month LIBOR and 3-month Treasury bill rates, which between 2002 and 2006 averaged 15 bps, but it jumped to 200 bps at the end of December 2007 (Graph 1). Evidently, the banks stopped trusting each other and curbed credit swapping transactions at the end of last year. After the recent liquidity injections by the Federal Reserve, the TED spread has receded to 86 bps on May 15, 2008, indicating a partially regained confidence in asset quality of the banking sector and a revival of interest rate swaps.

The Federal Reserve has responded swiftly to the subprime mortgage crisis by radically infusing liquidity to troubled financial institutions. It lowered the cost of inter-bank borrowing by cutting the federal funds rate from 5.25 percent in August 2007, to 3.0 in January 2008, and by a cash infusion through special swap arrangements and direct credit outside the discount window. This 'Grand Easing of 2008' by the Fed is aimed at reducing the burden of ARMs resetting to mortgage borrowers thus also at containing the rapid growth of foreclosures. Yet, the bail-out of troubled banks as well as monolines (mortgage insurers) entails a number of dangers that cannot be ignored from the standpoint of long-term stability of the U.S. as well as the global financial markets. Chief among these dangers is the departure from inflation targeting, which could serve as the effective disciplinary anchor for monetary policy that in turn could improve the monetary policy credibility and strengthen the U.S. currency. It seems that the Federal Reserve has given up attempts to gear policy decisions to its implicit target derived from the forecast for inflation based on the core PCE (personal consumption expenditure) index. At this time, realization of the core PCE inflation target specified at the range between 1.75-2.0 percent for the end of 2008 and disclosed by Chairman Ben Bernanke in his February 14, 2007 Congressional testimony seems entirely implausible (Graph 2). Moreover, the dramatic discretionary injection of liquidity that departs from prudent, disciplined policy rules carries the danger of a 'signaling effect' about a potentially serious problem for the U.S. economy, i.e. the Fed reaction seems to signal to investors that the central bank may have more damaging information about the seriousness of the economic recession than the markets do, since it is so eager to give up its inflation target and the future price stability. Even more importantly, by providing vast liquidity to troubled financial institutions thus also distorting the term-structure of interest rates, the Federal Reserve seems now to be shifting the asset bubble from mortgage-backed derivatives and housing prices into other assets, namely gold, crude oil and other commodity futures. One way or the other, the financial burden of this policy on U.S. households and businesses will be significant in the foreseeable future. In sum, the Federal Reserve will be well-advised to treat the current easing as only temporary and to return to the forward-looking inflation targeting. Otherwise, its long-term credibility as well as stability of the U.S. as well as global financial markets might be jeopardized.

Unfortunately, the new bubble embedded in rising commodity futures, including agricultural product futures, seems more painful to ordinary people all over the world than the real estate or derivate securities bubbles. The escalating prices of food and other commodity futures may be now providing safety to hedge fund investors, but they entail enormous strain on real incomes of the poorer members of the global society. If this tendency continues, social unrests and outbreaks of political instability may tag along.

Are there any remedies to the current financial crisis outside the purview of monetary policy? Undoubtedly! Among others, a number of improvements can be enacted by banks in the area of risk management. They need to place a stronger emphasis on overall market risk, not just individual credit risk. Risk management shall be viewed as a team-effort of special risk committees; it cannot be just left to individual bank officers. In general, a more parsimonious approach to risk shall prevail among financial institutions, at least at the present time; the banks should stick to 'plain-vanilla' (not backed by derivatives) securities, thus refrain from large exposure to CDOs and other 'derivatives on derivates' with complicated option characteristics. In addition, further improvements in risk-assessment techniques are urgent as the existing models have failed to predict the scale and the repercussions of the subprime mortgage crisis.

Graph 2: CPI and trimmed-mean Core PCE inflation rates in the United States. January 2000 – April 2008 sample period, year-on-year data.



Data Source: Federal Reserve Bank of Dallas and Federal Reserve Bank of St. Louis

In hindsight, the financial market vicissitudes are not over yet – the 'conundrum' related to the excess global liquidity and the subprime mortgage crisis is still unwinding. Liquidity in global financial markets is still plentiful; so are market risks, mainly due to uncertainty about the economic growth and inflation in the U.S. . It seems imperative for the Federal Reserve to return to a more disciplined policy based on forward-looking inflation targeting in the not-so-distant future. On a final note, a tighter regulation and supervision of financial institutions, as well as their bail-outs by policy-makers will not resolve the current financial markets' gyrations. Improved asset, liability and risk management strategies at financial institutions, as well as the disciplined monetary policy of the Federal Reserve are likely to be more successful in restoring stability of global financial markets.

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