CAMBRIDGE ASSOCIATES LLC

U.S. MARKET COMMENTARY

ANATOMY OF A CREDIT CRUNCH

August 2007

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Anatomy of a Credit Crunch

Introductory Note

We are publishing on an expedited basis two Market Commentaries this month: this article, which addresses the origins and extent of the credit crackup in the United States and includes a timeline of noteworthy events in June, July, and August (see accompanying table) and a companion Global Market Commentary that examines the implications of the recent market turmoil and our advice on sailing through or around the storm.

U.S. Credit Markets: A Spanner in the Works

The U.S. credit markets have virtually seized up over the past two months. Yield spreads and bid-ask spreads have widened substantially, many mortgage-related firms have seen their access to credit frozen and some have declared bankruptcy, and the discovery of kudzu-like subprime assets in unlikely places (money market funds, anyone?) has sent the equity market into a tizzy.

A Tranquil Starting Point

As a first step, let's look briefly at where things stood in early June going into the credit panic. The Merrill Lynch High Yield Master II Index saw its option-adjusted spread narrow in early June to its smallest point in at least a decade, the beneficiary of extremely low default rates, easy refinancing terms, and optimism that robust economic growth would continue. Similarly, spreads on investment-grade debt were generally low, reflecting solid balance sheets but offering little compensation for risk. The supply of committed debt underlying leveraged buyout (LBO) transactions hovered around $400 billion, with banks seemingly sanguine about placing that debt with investors. U.S. house prices had been contracting, defaults and delinquencies on poorly underwritten subprime and Alt-A mortgages[1] were rising, but pricing of mortgage-related assets seemed to reflect the view that defaults would be absorbed by low-rated tranches of collateralized debt obligations and that the subprime issue would be "contained."

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[1] Subprime generally refers to home mortgage or home equity loans made to consumers with poor credit histories and/or high debt/income ratios. Alt-A loans are made to homebuyers with strong credit histories, but the loans may be for a large percentage of the property's value, or the buyer may be unable to document sufficient income and assets to service the debt. These loans may be traditional, amortizing fixed-rate mortgages, but the majority of these loans in recent years have been adjustable rate, with some loans including negative amortization features, such as a 40-year term or the ability to choose a minimum monthly payment that did not cover the full interest expense. Subprime and Alt-A loans collectively accounted for approximately 40% of originations in 2006, up from less than 15% in 2002.

Assessing the Magnitude of the Tremors Underneath Us

Much has changed in the credit market environment from mid-June to August 17. Yield spreads have blown out on both investment-grade and high-yield debt, and bid-ask spreads are significantly wider as transaction volumes have dwindled (a reminder of why money managers refer to corporate and mortgage-backed bonds as "spread product").

A nearly overnight change in investors' risk appetites left large banks holding much of the buyout financing bag (brokerage analyst Glenn Schorr of UBS estimated recently that Goldman Sachs held roughly $70 billion in stranded LBO financing, equal to 8% of assets), and the cost of protecting investment-grade bonds of financial issuers from default has skyrocketed. For example, as the table shows, the cost of insuring $10 million in Goldman Sachs bonds against default tripled from the beginning of June to August 17.

Investor faith in the "waterfall" structure designed to protect owners of highly rated tranches of subprime-structured securities has broadly diminished, as has faith in the major credit-rating agencies, which derived much of their revenue from blessing these securities with ratings that seem to have greatly understated their risk. Firms and funds revealed or feared to have subprime exposure have seen their securities punished in the equity and debt markets. Yields on Treasury bills plummeted in recent days amid the hunt for unimpeachable quality, and the spreads of commercial paper over T-bills widened to their highest level ever last week. Countrywide, the second-largest mortgage lender in America, drastically scaled back its lending, laid off staff, and tapped $11.5 billion in emergency credit lines from 40 banks as its short-term funding sources dried up and the yield on its outstanding debt shot to 15% in some cases. Countrywide is now battling a run on its bank subsidiary and Warren Buffett is rumored to be hovering in the wings, hoping to scoop up the remains at fire-sale prices.

What Happened?

The sequence of recent events in the credit markets is shown in the accompanying timeline; however, the essence of what happened is what *always* happens eventually at the end of a benign period during which low cost of capital or credit enables speculators to profit heartily from leveraged investments in low-quality assets. As the central banks raise interest rates to stem inflationary pressures from robust economic growth, the cost of leverage rises while the viability of the low-quality assets declines until a tipping point is reached—someone yells "Fire!"—and everyone in the game scrambles to get out. This is essentially what happened in the equity markets in the late 1990s, with the end game postponed (and easy money conditions exacerbated) by the Federal Reserve's infusion of liquidity to forestall any Y2K problems. When the Fed proceeded to withdraw that "excess liquidity" in early 2000, the game was up. This time around, the locus of speculation was the credit markets, especially the residential mortgage-backed securities markets, where the proliferation of dubious loans has been well documented.

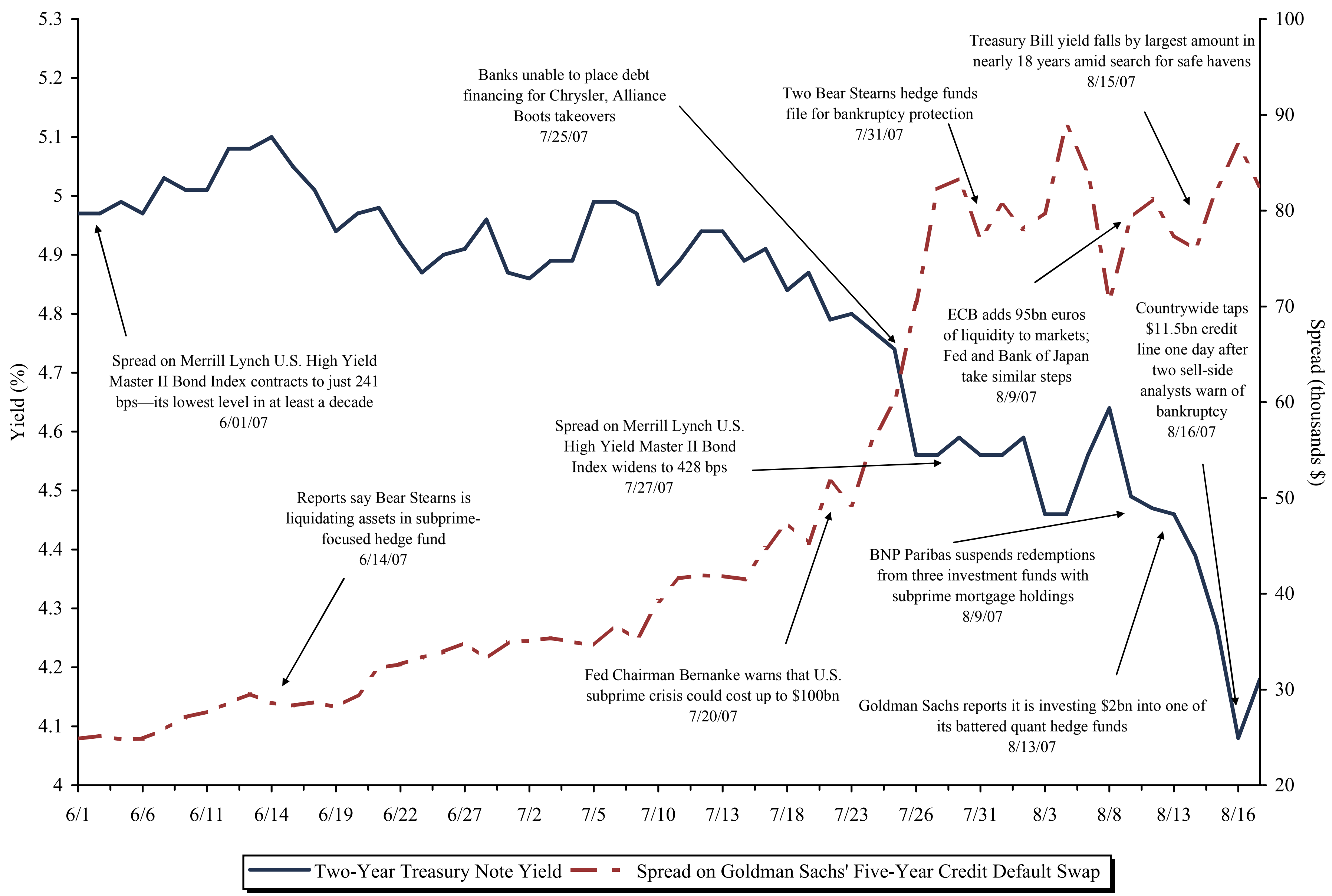
The computer models that direct or inform so many trading strategies these days always fail at such tipping points and profits slowly accumulated over months or years suddenly evaporate in days. Why?

Because the models cannot be programmed to account for discontinuity, perverse anomalies, irrational pricing, and various other characteristics of a market panic—otherwise they would prevent the traders from trading at all. During or after such a crisis or crash some frustrated or bankrupt notable always expresses his astonishment that a one-in-100,000-year event has occurred. In fact, even a cursory reading of capital market history would reveal that such conditions recur about once every seven or eight years—more or less. The circumstances are never identical, but they have recurring fundamental characteristics that those holding leveraged positions in low-quality assets should probably try to remember—and which the computers could "solve" if they could be programmed to answer the following questions:

1. When liquidity evaporates, credit spreads balloon, and risk aversion spikes, to whom shall we sell?
2. Since the assets we hold will be depreciating in price, while the cost of borrowing will be rising, how will we meet the ensuing margin calls?
3. Since our low-quality assets will have acquired the status of toxic waste no one will touch at any price, will we not be forced to sell whatever we *can* sell to meet those margin calls?
4. And what will those fetch when thousands of others, holding similar positions, amounting to hundreds of billions of dollars, are in the exactly the same jam?
5. But will not the Fed see what is going on and slash rates to bail us out?
   (Answer: No, the Fed's job is to preclude market seizure—to enable the markets to clear—but absolutely not to bail out those caught on the wrong side of the trade, otherwise it would simply set the stage for a larger and more damaging crisis down the road.)

What Next?

As we discuss in greater detail in the Global Market Commentary, at this point uncertainty persists—we cannot be sure the stampede out of commercial paper into T-bills has run its course. However, we feel relatively confident in some predictions. First, the Fed will intervene as required to maintain an orderly market, but no more. Second, there are other shoes to drop (as a recent comment from Bridgewater Associates puts it) in the form of nasty surprises at hedge funds, banks, insurance companies, and who knows where else. Third, the days of no-money down, no-document, negative amortization, etc. loans are over (until the next time), and the housing market will remain weak as mortgage defaults and attendant foreclosures persist. Similarly, in the corporate sector, weak borrowers will find the credit window shut or terms far more onerous, and some will go bust as a result. As we have noted for some time, the next significant investment opportunity is in distressed securities, where the impending supply will swamp all previous records. Finally, financial sector earnings growth, which has constituted roughly 30% of U.S. corporate earnings in the past year, will almost certainly be seriously impaired, resulting in significantly lower growth for U.S. equities in general—a prospect that the market's recent decline may not adequately discount.



Sources: Bloomberg, Goldman Sachs, Thomson Datastream, and U.S. Treasury.