

Inside Risks

When financial turmoil has major effects, credit derivatives provide useful early warnings for the macroeconomy



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IT has become conventional wisdom that many of the financial sector problems of the past year had their origins in the “mispricing” of risk. There is, no doubt, an element of truth to this view, particularly during the boom years because key financial players seem to have underestimated important risks.

Yet it's also the case that, since July 2007, some of our most reliable indications about the exact nature of rapidly emerging financial problems have come from these very same markets for risk. In fact, looking back over the past six months or so, it's now apparent that these markets have given us a quicker and more accurate heads-up about potential macroeconomic issues than have many conventional macroeconomic indicators.

Specifically, you can see the market's view on the default probability of various securities from the price of so-called credit default swap (CDS) spreads. The idea is that if you want to hold a security and protect yourself from the risk of a default, you can effectively buy insurance through this market—actually, you buy the option to sell (or “put”) the security to someone else if it defaults. The CDS spread is the price (or effective premium) of that insurance. Because many of these CDSs are traded in liquid markets, the price of this insurance is updated in a rapid and transparent manner.

You can insure against default in many types of securities, and, overall, this is a large market (some estimates put it at about \$45 trillion outstanding). But the prices that have been particularly informative of late are

CDS spreads for banks and, more recently, for corporates. These prices move in reaction to news (and rumors, of course), and they have to be interpreted with care. Still, there was and is a great deal of information in these prices if you look carefully. Remember, these are market perceptions, but, especially with respect to banks, we've been reminded repeatedly since the summer that perceptions can quickly become realities.

If the market thinks that an individual bank or set of banks has become more likely to default, the CDS spread goes up. If some banks appear less likely to default, CDS spreads go down. Think of it as a kind of bank-level financial thermometer that can indicate who has a fever and who may get one next.

IKB and Northern Rock depart

The major surprise or, perhaps, even shock of the summer was that established, high-volume financial markets could quickly become illiquid. Liquidity problems have a way of becoming solvency problems: perhaps you can't pay only because you don't happen to have cash at hand, but this can be interpreted as meaning that your liabilities exceed your assets. And, if no one will lend to you as a result of such, perhaps unjustified, fears, then it may be hard to stay current on your debts—that is, you default.

The extent to which liquidity problems can jump around between seemingly unconnected and strong parts of the global financial system is another lesson we learned last summer. The key issue for perceived financial instability is how perceptions of

default risk spread. For example, when IKB, a second-tier German bank, needed to be rescued at the end of July 2007 (as a result of problems with a fund that invested in U.S. subprime-related securities), CDS spreads rose sharply for banks across Europe, but particularly for banks with a great deal of business in Germany (see Chart 1). This was our first indication that the financial sector problems arising from subprime and related mortgages wouldn't be confined to the United States. And this has turned out to be a major issue—first complicating and then worsening the global economic outlook.

It was also a helpful hint that banks (and others) were starting to worry about whether other banks were solvent. This led to banks hoarding their liquidity—that is, not lending it to each other in their usual manner. And this, in turn, meant that the European Central Bank (ECB) and other central banks had to provide greater liquidity to keep interbank rates down. Again, this became a major issue for monetary authorities in industrial countries throughout the fall of 2007, and the considerable, general success of leading central banks in providing liquidity could be tracked, in part, by what happened to CDS spreads.

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CDS spreads were also a leading indicator when the U.K. mortgage lender Northern Rock ran into liquidity difficulties in September 2007. The Bank of England was just as ready to supply liquidity as the ECB, but for historical reasons it lent only against government securities—unlike the ECB, which can lend against mortgages. Northern Rock's assets were mortgages, and when it ran into funding difficulties, it could not use those mortgages as collateral to borrow from the Bank of England.

There was an initial attempt to let Northern Rock sort out its own problems. But, again, CDS spreads signaled that this approach would be problematic. The spreads widened for Bradford & Bingley and for Alliance & Leicester, two U.K. mortgage lenders that have models somewhat similar to that of Northern Rock (see Chart 2). It was clear that the problems would

not be limited to Northern Rock, and the government was forced to become more involved.

Sovereign wealth funds arrive

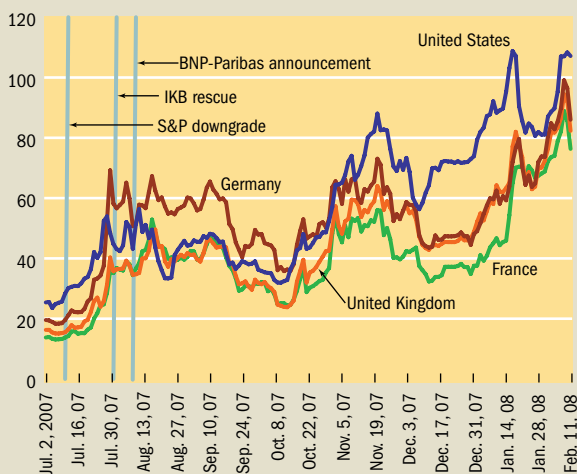
Fast-forward to the wave of recapitalizations of major U.S. banks over the past months. This seems like a good thing. These banks have recognized their losses and raised substan-

Chart 1

Spillover effect

When Germany's IKB defaulted, CDS spreads rose particularly for banks with a lot of business in Germany.

(major banks; 10-year average CDS spreads; basis points)



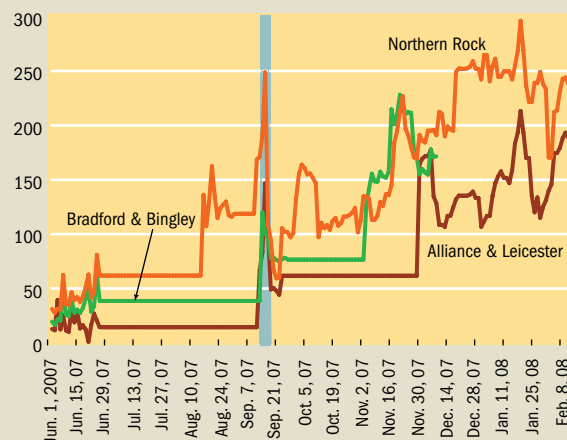
Source: Datastream.

Chart 2

Too close for comfort

Northern Rock's woes took a toll on two U.K. mortgage lenders with similar models.

(U.K. lenders; 10-year CDS spreads; basis points)



Source: Datastream.

Note: Shaded area represents period when Northern Rock sought liquidity support and when Bank of England conducted extraordinary injections in the money market.

tial new capital, in part from sovereign wealth funds—the large pools of foreign capital accumulated by countries that have run large current account surpluses in recent years. Surely this capital reduces the risk of default for the banks involved?

Certainly, more capital is helpful in this situation. But one striking fact is that in many instances the CDS spreads actually increased after the sovereign wealth fund investments were announced (see Chart 3). Why this happened remains open to debate. But it's definitely an indication that these large outside investments, on very reasonable terms, do not by themselves remove all risk of further financial turmoil.

Equity also talks

I don't want to give you the impression that CDS spreads are the only interesting, firm-level indicator with information about where the macroeconomy may be headed. The (equity) prices of various sectoral indices are often informative; for example, consumer durables typically move down and utilities move up, relatively, when recession is expected.

Of course, the probability of default plays a role in determining equity prices. But equity prices should reflect future earnings, and it's quite possible for expected earnings to decline without implying a higher risk of default. It's the sharp edges of default—and the particular ways this can trigger further defaults across the financial system—that grip the imagination and worry officials.

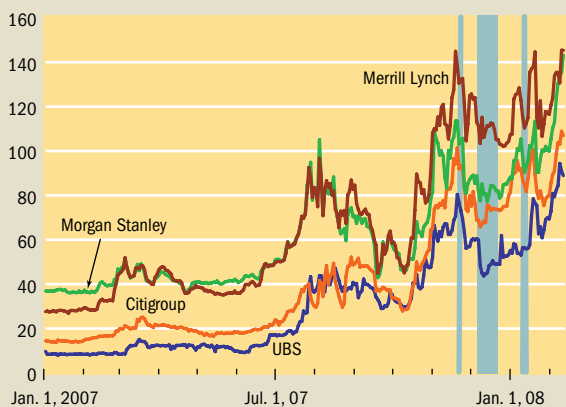
Nevertheless, equity prices are informative, either in combination with CDS spreads or when CDS spreads aren't available. If you want to look at where there are and aren't strains within the European banking system, for example, then equity prices are a helpful indicator—particularly for smaller entities for which there isn't an active CDS market.

Chart 3

New capital

The announcement of sovereign wealth fund (SWF) investments initially caused CDS spreads to increase.

(selected financial firms; 10-year CDS spreads; basis points)



Source: Datastream.

Note: Shaded areas represent dates of SWF injections.

Also, for emerging markets there are thinner markets for CDS spreads for corporate securities. We can look, however, at spreads (both CDS and more conventional) on government bonds and follow equity prices for leading banks. This

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combination has proved quite a reliable indicator of where vulnerability has led to pressure in various emerging markets over the past half year and has helped policymakers take corrective action with appropriate timing.

What's next?

If CDS spreads continue to be a reliable indicator of financial turmoil, there's some rough sailing ahead. CDS spreads are now wider for investment-grade corporates than they were in July/August 2007. For U.S. banks, CDS spreads are back at the levels of November 2007, when there were serious worries, and for European banks, CDS spreads are now above those levels.

Major countercyclical policy initiatives are under way in the United States, and policymakers stand ready to take appropriate action in other countries (although inflation and inflation expectations remain a serious concern in some instances). So this picture is a dynamic one that updates almost daily. Check your local financial daily for details.

Perhaps the most important yet tricky lesson is that these credit markets provide an informative indicator that is helpful to policymakers, even while credit transactions themselves come under stress. It might therefore be appealing to encourage the development of such markets around the world, in the broader context of strengthening and deepening financial markets, with an eye to adding to the early warning tool kit for spotting financial distress. But such a step might also be premature. The market for CDSs is itself under stress, with considerable concerns about “counterparty risk”—that is, the possibility that the people selling insurance in this market may themselves default. This is a daunting prospect. As a result, it is, unfortunately, a little too early to know for sure if the CDS market will turn out to be an excellent way to transfer and spread risk, as well as to signal pressures in the system, or whether it has to be treated very carefully because of the potential negative impact on the financial system as a whole. ■