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Why a Black Swan Landed in the Money Market in August 2007

The Fed has gone about as if the problem is a shortage of liquidity. That is not the basic problem. The basic problem for the markets is that uncertainty that the balance sheets of financial firms are credible.

—*Anna J. Schwartz interviewed in the* Wall Street Journal, *October 18–19, 2008.*

THE FAILURE TO DIAGNOSE the financial crisis early on as mainly due to increased risk rather than to liquidity is a key reason that the policy responses were inappropriate and that the crisis was prolonged, as explained in Chapter 2. As with a medical patient, say with cancer, if you misdiagnose the disease and see it as a digestive disorder, then you will prescribe the wrong treatment. By not attacking or removing the cancer you let it grow, and the treatment for a nonexistent digestive disorder could make the patient even sicker. Ironically,

during the Great Depression, a crisis to which the current one is often compared, there was a liquidity shortage, and the Fed did not provide liquidity, as Milton Friedman and Anna Schwartz showed in their *Monetary History of the United States*. In this crisis the Fed did provide liquidity, but the problem was not a shortage of liquidity—the doctor prescribed the wrong treatment.

A legitimate and important question, however, is whether such a diagnosis was possible early on. In this chapter I examine this question. I explain how one goes about making such a diagnosis in the case of economic illnesses, and I examine some actual diagnoses made in real time in 2007 and 2008, including the one by John Williams and me mentioned in Chapter 2.

Early Signs

Signs of severe trouble first flared up on Thursday, August 9, 2007, when traders in New York, London, and other financial centers around the world faced a dramatic and sudden change in conditions in the money markets. Interest rates on medium-term interbank loans, measured, for example, by the three-month Libor (London Interbank Offered Rate) surged, compared with the interest rate on overnight interbank loans (the federal funds rate), which the Fed targets. The turmoil did not disappear. The term interbank rates did not come down at all and indeed moved up further on Friday. Rates on such term lending seemed to disconnect from the overnight rate and thereby from the Fed's target for interest rates. Because interest rates on trillions of dollars of loans and securities are

linked to Libor, bringing the spread down became a major concern of policy officials at the Federal Reserve.

After many years of comparative calm, traders, bankers, and central bankers found these developments surprising and puzzling. But that Thursday and Friday of August 2007 turned out to be just the beginning of a remarkably long period of tumult in the money markets, with the difference between the three-month Libor and overnight loans remaining unusually high and volatile, reminiscent of the highly extraordinary events described by Nassim Taleb in his popular book *The Black Swan: The Impact of the Highly Improbable*. But why did that black swan land in the money markets?

Possible Diagnoses

Right from the beginning of the crisis, bankers, economists, and others offered various explanations. One explanation, referred to as "counterparty risk," was that banks became reluctant to lend to other banks because of the perception that the risk of default on the loans had increased and/or the market price of taking on such risk had risen. Lending between banks in the Libor interbank market is unsecured; there is no collateral to claim in the case of a default. Many banks were writing down their loans and securities because they had either been downgraded or were backed by mortgages with delinquent payments or foreclosed properties. Clearly, the continuing decline in housing prices and the slowing economy raised the chances of a further deterioration of banks' balance sheets. Moreover, the realization of the risks of securities backed by subprime mortgages triggered doubts