BUSINESS PROBLEM-SOLVING CASE

HSBC's Mortgage Lending Decisions and the Big Melt

It isn't often that the American financial system, and its world counterpart, has a near-death experience. The last time was the 1930s. Beginning in 2007 and extending through 2009, American and global financial systems failed, melted down, and were rescued only by concerted central bank interventions in all the major industrial countries. The United States directly invested about 1 trillion dollars in U.S. financial institutions, and guaranteed an estimated $14 trillion dollars in private debt.

The complete history of this period has not been written. Many causes, involving many different actors, have been identified. Some have likened the big melt to a "perfect storm" where a number of storm systems just happened to combine to form a much larger, lethal storm. But one cause was the failure of decision-making models, both the model builders and the financial managers who relied on those models.

One of the major players in this crisis was HSBC Holdings PLC, the third largest bank in the world based on market value, and the largest bank in Europe. In the financial meltdown of 2008—2009, HSBC joined the other major money center banks in a collective failure. HSBC weathered the turmoil in the financial markets better than most of its rivals, mainly because it had profited from continuing growth in Asia, where it generates about 65 percent of its pretax profit. But the company's stock prices have fallen by half from their pre-crisis high, and HSBC had to shed over 6,000 employees, close over a thousand branches worldwide, and write off its mortgage generating unit in the United States called Household International.

Senior managers at HSBC had observed the incredible rise in U.S. home prices in the period 1990—2000, and closely followed the subprime mortgage market which drove home sales ever higher in the United States. In order to participate in this frothy market, HSBC bought Household International in 2002 for $15 billion. Household was one of the largest originators of consumer credit and subprime mortgages in the United States.

Subprime mortgages are targeted toward low-income borrowers who represent a higher risk of default when compared to prime borrowers. Some subprime mortgages were "stated-income" mortgages where applicants did not have to prove their incomes but simply stated them on an application. Sixty percent of these applicants were found to have inflated their incomes by 50 percent or more. Many also exaggerated their employment positions to coincide with the inflated income. As a result, they received approval for loans that were much larger than they could actually afford. Adding risk, most subprime loans were variable rate loans where interest rates rose steeply after a few years.

Why on earth would banks and credit lenders like Household lend money to people who were unlikely to pay it back? The answer lies in modern tools of "risk management" and financial innovation. The risk management part involved selling the risk to other institutions and individuals who did not understand the risks they were taking. The financial innovation part was a relatively new instrument invented in the 1990s called a "collateralized debt obligation" or CDO. Lenders would originate mortgages, bundle thousands of them together, create a new financial instrument that offered high interest based on the cash flow of the subprime mortgages in the bundle, and then sell this instrument around the world as a "safe investment" in the rising U.S. home market. There seemed to be an insatiable market for CDOs, which offered slightly higher rates than safer government bonds. Similar lending practices were adopted in the United Kingdom, including Ireland, less so on the European continent, and in Asia. Reckless practices were extended to other forms of credit including credit cards (even prisoners were offered credit cards), and personal loans.

Welcome to the new world of risk management and the distribution of risk over millions of investors! The risk finally was passed onto whoever wound up with the debt instrument in their hands, a kind of financial musical chairs. When the music stopped, those left holding the bag included pension funds, municipal governments, and millions of individuals throughout the world all looking for slightly higher returns. Ultimately, governments around the world ended up guaranteeing much of this debt estimated to be well over $15 trillion in mortgages alone.

Unfortunately, the banks' practices were based on models using rosy assumptions that home price values would rise over long periods of time, and that collapse in one credit market would not spread across the globe to all financial markets because the developed markets of the West were now "de-coupled" from the emerging markets. The really fundamental assumptions in these models were that home prices in the United States had not experienced a long-term secular decline in prices since the 1930s, that the prices of homes historically were normally distributed, and that therefore, the risks could be estimated, understood, and priced into the instruments. As it turned out, all of these assumptions were wrong. The assumption on the stability of home