# MORAL HAZARD — THE ROOT OF THE PROBLEM

As the global markets grapple with the notion that the U.S. financial malaise has spread to Europe and Asia, contagion ripples across the globe. Financial assets are now clearly out of favor as panic-stricken investors race one another to flee the capital markets.

While a multi-decade boom in the popularity of exotic mortgage loans created a latent toxicity that would take years to become apparent, the unregulated use of an arcane financial instrument known as the "credit default swap" provided the means by which that toxicity could permeate the global financial system. Let's explore it a bit.

## OPTION ARMS — THE 'VIRUS'

### BAD LOANS BREWING FOR DECADES

Although the sub-prime credit problem took center stage in 2007, its roots reach back at least two decades. In the mid-1980s, would-be borrowers were typically forced to conform to certain lending standards. For instance, lenders generally approved mortgage loans only to the extent one's monthly payments consumed no more than 28% of one's gross monthly income. When one's other ongoing obligations were considered, banks typically drew the debt-to-income line at 36%. In those days, a loan commitment actually suggested the borrower could service the debt.

Over time, competitive pressures induced lenders to hunt for ways to not only underwrite larger loans, but to extend credit to marginal borrowers. After all, greater loan volumes appeared to simultaneously serve the interests of buyers, builders, Realtors®, Wall Street, and lenders alike. Enter the option adjustable rate mortgage loan (the "Option ARM").

### FLEXIBLE, BUT COMPLEX

Unlike traditional adjustable rate mortgage loans, Option ARMs afforded borrowers some latitude to choose how much to pay each month. In essence, borrowers were given the ability to disassociate their monthly payments from the underlying economics of their loans. Not surprisingly, borrowers often chose payments that were insufficient to amortize their loans. Consequently, their loan balances would necessarily *rise* over time — just the opposite of the manner in which traditional loans work. Of course, rising loan balances make it impossible for borrowers to build equity in their homes unless real estate values appreciate even more rapidly.

Since homeowners with no equity in their homes lack an economic incentive to make loan

payments, they represent something of a moral hazard. Lenders know this, so in promoting Option ARMs lenders were essentially betting that real estate prices would rise faster than borrowers' loan balances. As Option ARMs became ever more popular, lenders effectively planted little moral hazard seeds all over the country.

The real estate bet paid off for a couple of decades, but when real estate values did eventually soften, we experienced a moral hazard 'bloom' as people walked away from their homes and mortgages in meaningful numbers. Loan delinquencies and foreclosures skyrocketed and a vicious cycle of bad loans, foreclosures, massive write-downs, and tumbling real estate values ensued.

## CREDIT DEFAULT SWAPS — THE 'SNEEZE'

### UNREGULATED INNOVATION

A credit default swap ("CDS") is nothing more than a contract whereby some third party agrees to guarantee the repayment of some debt to a creditor. In essence, CDSs are insurance policies purchased by creditors who have some misgivings about a debtor's ability to repay its debt. In exchange for issuing a debt guarantee, the third-party guarantor receives a fee from the creditor. That fee is equivalent to an insurance premium. The size of that insurance premium tends to vary with the creditworthiness of the debtor.

### CALL THEM ANYTHING BUT INSURANCE

Since a well-capitalized insurance industry is one that has the financial wherewithal to pay its claims, it would have been squarely in the public interest for regulators to impose capital standards on those who participated in the CDS market. However, because CDS participants were generally large, sophisticated entities, regulators were mollified into allowing the CDS market to operate without any such standards. In fact, to help ensure that the CDS market would remain outside the purview of insurance regulators, CDS agreements were typically drafted without ever mentioning the term "insurance" — even though they clearly were.

### OPTION ARMS FIND THEIR WAY INTO THE CDS MARKET

While the CDS market was established to satisfy the needs of those who wished to mitigate the credit risks associated with investing in plain-vanilla municipal, corporate, and mortgage bonds, the market later evolved to include complex investment vehicles — many of which were created using billions of dollars of Option ARMs. Because the payment patterns of Option ARMs depend upon a host of complex variables, they are difficult to analyze and therefore

pose great risk to those entities that sought to guarantee their performance in the CDS market.

**THE CDS MARKET BECOMES PERVERTED**

In the early days of the CDS market, credit defaults were relatively scarce. Therefore, the profits earned by CDS guarantors were attractively high. While the CDS market was initially intended to allow creditors to transfer credit risk to some third-party guarantor, the prospect of little regulation, attractive profits, and the lack of capital standards attracted speculators. Over time, the basic premise of creditors transferring credit risk to third-party guarantors became overshadowed by speculators who simply wanted to place bets as to whether a given debtor or financial instrument would pay as agreed. Since these speculators had not actually purchased any debt, they had no real stake in the game. They simply wanted to bet. As speculators eventually came to dominate the CDS market, its original purpose became perverted.

**CREDIT DEFAULT SWAPS...MURDER FOR HIRE**

Academicians would note that speculators lack an important element that must ordinarily exist before a traditional insurance contract can be issued. The missing element is a so-called "insurable interest." Similar to the manner in which having equity in one's home creates an incentive to honor the terms of one's loan, the presence of an insurable interest helps overcome the economic incentive to destroy that which is insured.

If, for example, insurers were to allow people to purchase life insurance on the lives of others in which they had no insurable interest, the murder rate would undoubtedly rise as "insurance speculators" angled to kill the very people they had insured. Such a system would obviously run contrary to public policy, yet this is exactly the manner in which the CDS market evolved. The pervasive existence of a speculative moral hazard in the CDS market contributed greatly to the demise of Lehman Brothers and Bear Stearns.

**MURDERERS EVERYWHERE**

No one knows precisely how large the CDS market is. This is a problem in itself, but if estimates of $60 *trillion* are accurate, the CDS market would be many times larger than the underlying credit markets upon which it is based! When one stops to consider that a substantial portion of the credit markets consist of Treasury securities (which, of course, require no credit insurance), the speculative nature of the CDS market becomes painfully clear. The CDS market has not only evolved as a place to bet on exotic financial instruments, it has become infested with speculative moral hazards.

**WHO'S INSURING MY DEBT?**

As CDS sellers guaranteed increasing volumes of debt, they became increasingly wary of their credit exposure to a given debt issuer. An efficient way for a guarantor to limit its credit exposure is to *purchase* one or more CDS contracts on the very same debt it previously guaranteed. In essence, CDS guarantors often reduce their exposure to a given debt issuer by taking offsetting CDS positions. Because the CDS market is essentially unregulated and private, this "netting" process makes it difficult to determine which entity might ultimately be responsible for guaranteeing a given debt.

So, not only do the lack of capital standards increase the probability of weak guarantors, the practice of netting makes it difficult to determine who ultimately guarantees a given debt. Of course, one can't evaluate the health of one's insurer if one can't determine who one's insurer is!

**THE CDS MARKET...LIKE AN OLD STRING OF CHRISTMAS LIGHTS**

When a CDS guarantor does fail, it not only defaults on any credit guarantees it may have issued directly to debt holders, it also defaults on any netting transactions into which it may have entered with other CDS participants. Since netting is so prevalent within the CDS market, the failure of a CDS guarantor is certain to reverberate throughout the CDS market.

Due to the opaque nature of the CDS market, it is difficult to divine how the failure of one entity might impact any other entity. However, if the failed entity is large, the resultant shockwave can easily overwhelm other counterparties. Even if the remaining counterparties don't fail, they tend to become spooked because they know there's risk in the system, but they can't necessarily tell how large the risk is or where it might lurk. As financial institutions around the world have reeled from losses on mortgage loans and bad CDS bets, their capital cushions have eroded forcing them to become increasingly wary of dealing with one another. The end result is frozen credit markets.

Do you remember when Christmas lights were designed in such a way that one burned out bulb would cause the entire string to go dark? Better design eventually allowed the rest of the string to remain lighted. Unfortunately, through a lack of regulation and the unforeseen manner in which the CDS market developed, the global financial system now operates just like an obsolete string of Christmas lights. Judging from the coordinated actions of central bankers and policymakers around the world, however, deeply embedded structural flaws and moral hazards are now being addressed at their roots. So, tomorrow could be brighter.