



JAMES R. THOMPSON

CREDIT DEFAULT SWAPS: WHAT ARE THEY?

After the fall of Lehman Brothers and AIG, credit default swaps (CDS) became a household term. AIG in particular sold massive amounts of credit default swaps that essentially became worthless to the buyer before the US government stepped in. In this article I will demystify and discuss some relevant issues related to credit default swaps, and focus mainly on the potential problems of CDS contracts. It is important to point out, however, that there are many potential benefits of CDS investment, so one should not look at this article as advocating for their ban.

The notional size of the CDS market grew from 180 billion dollars in 1996 to 41 trillion in 2008.¹ CDS contracts have traditionally traded in over-the-counter markets, dominated by a handful of large dealers. Regulation of these contracts has been relatively light; however, that is fast changing.

Credit default swaps resemble insurance contracts. The buyer purchases protection against default of an underlying debt from a seller. A CDS contract can be compared to a standard insurance contract where the buyer is like a home owner, the seller like an insurance company, and the default of an underlying debt like that associated with a house fire. There are, however, differences. There is no stipulation that the buyer of a CDS contract must own the underlying debt. Fitch Ratings Agency finds through survey data that roughly half of all buyers use the contracts purely for speculation. We can draw an analogy to insurance in 18th century England. For a period of time, insurers allowed people to purchase policies on many things, with no restriction that the buyer must own the



“ALTHOUGH CREDIT DEFAULT SWAPS HAVE RECEIVED BAD PRESS SINCE THE CREDIT CRISIS, WE CANNOT CORRECT INEFFICIENCY UNTIL WE UNDERSTAND WHAT THAT INEFFICIENCY IS.”

underlying risk (in insurance jargon: have an insurable interest). A particularly perverse contract at that time was for merchants to purchase an insurance policy on another merchant's ship. Not surprisingly, insurers started to realize that there were more ships sinking than pure chance would allow. Imagine the situation from the perspective of the policy owners. They could profit from sinking the ship referenced in the policy in two ways: first, through a claim to

the insurer, and second, by knocking out one of their competitors. It is this type of reasoning that has been used by Germany and France in an attempt to ban the practice of purchasing any CDS, written on sovereign debt without being an owner of that debt.²

The differences between the CDS and insurance can be taken even further. Contrary to ordinary insurance, many CDS contracts can be traded in a very

active secondary market. It is this fact that has led many players to speculate on CDS investments, as opposed to speculating on the underlying bonds. The lack of liquidity in many bonds can make the CDS a low priced way to bet on the credit worthiness of a firm. A very important difference of CDS lies with the seller. In ordinary insurance, one usually thinks of an insurance company as well diversified, able to cede risk to re-insurers when necessary. In the CDS market, banks, insurers and hedge funds are the most active players on the sell side. The latter group can be particularly troublesome as many of them are undiversified by choice. This can make counterparty risk considerably more important in the CDS than in insurance. When a person purchases auto insurance for example, it is unlikely that they think too hard about the probability that their insurer will not be able to pay them. Although many CDS contracts are collateralized, they are rarely completely collateralized with risk-free assets and so buyers must consider counterparty risk, or they may find themselves on the wrong end of a deal gone bad.

To drive the point home about CDS sellers not performing the traditional role of insurers, the Wall Street Journal (June 12, 2009) reported an over-the-top story on a trade gone horribly wrong for many major banks at the hands of a small brokerage firm.³ The assets were mortgages on homes located mainly in California that, as of March 2009, were

becoming quickly worthless. Anticipating this, the big banks were actively buying insurance in the form of CDS contracts which were to pay off as the housing market sank. One of the firms from which they purchased protection was Amherst Holdings, a relatively small brokerage house. The protection was written on a bundle of pre-defined mortgages. Precisely as the banks had predicted, the housing market deteriorated further and their contracts quickly became in the money. However, they were shocked to learn that the mortgages that were referenced in the CDS contracts with Amherst had all been paid off in full by another company which appeared to have a relationship with Amherst. The problem was that the banks did not own the mortgages in which they insured, so they had nothing to gain when they were paid off, and thus they were left holding worthless contracts.

Stories like the one above might give us pause as we try to uncover the true economic role that CDS contracts play in the economy. In their infancy, there was little doubt that they were used mainly as a tool for banks to hedge credit risk. With the market size growing every year, it is clear that speculation plays an important role in the modern CDS market. Although these instruments have received considerable bad press since the credit crisis, we cannot correct inefficiency until we understand what that inefficiency is. This requires a deeper understanding of CDS contracts; an understanding which we currently lack.

¹Stulz, Rene M. "Credit Default Swaps and the Credit Crisis," Finance Working Paper N. 264, ECGI (2009)

²<http://dealbook.nytimes.com/2010/05/19/germany-bans-naked-shorts-and-c-d-s-s/>

³<http://online.wsj.com/article/SB124468148614104619.html>

BIOGRAPHY

DR.

JAMES R. THOMPSON

is an Assistant Professor of Finance

at the University of Waterloo where he has taught Managerial Finance since 2009. Currently he is a visiting Assistant Professor of Finance at the Wharton School, University of Pennsylvania where he teaches corporate finance in the MBA program. His research is centered on the issue of counterparty risk, with particular focus on credit default swaps. He has published his work in the Quarterly Journal of Economics and has presented his research at many conferences, Universities and Central Banks/Government institutions including the Bank of England, the German Bundesbank, the Bank of Canada and the Federal Deposit Insurance Corporation. He holds a Ph.D. degree from Queen's University.

TESTIMONIAL

THE FUNDING I RECEIVED FROM THE CSIRF WAS INSTRUMENTAL TO MY WORK.

My research requires interaction with many academics, government agencies and industry practitioners around the world. It is important to interact with these individuals so that my papers are relevant both inside and outside of academia. The CSI grant allowed me to do such traveling. In addition, my work requires me to seek assistance from graduate students to help keep on top of the literature and media coverage of such issues. The CSI grant allowed me to hire two Ph.D. students to assist me.