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# A PRIMER ON CREDIT DEFAULT SWAPS

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The recent financial crisis and resulting government bailouts have led many people to search for someone, or something, to blame. Some people have even decided to cast as villain credit default swaps—a kind of derivative financial instrument of which virtually no one outside Wall Street had heard this time last year. But are credit default swaps really “financial weapons of mass destruction,” as Warren Buffet alleges? Or are they efficient contracts that in fact reduce risk and contribute to the stability and flexibility of the American economy, as Alan Greenspan argued when he was Chairman of the Federal Reserve?<sup>1</sup>

## I. Credit Default Swaps: What They Are and What They Do

Imagine that a person owning a bond issued by IBM with a face amount of \$1 million is worried that IBM will default and not pay the interest or the principal on the bond as these become due. To guard against this risk, the bondholder can enter into an agreement, usually with a bank, to, in effect, buy protection against this risk. In such an agreement, the bondholder (the *buyer*) agrees to pay the counterparty (the *seller*) a specified percentage, say 2%, of the \$1 million face amount of the bond. The seller on the contract agrees that, if IBM fails to pay interest or principal when due, the seller will make a one-time payment to the buyer, either by buying the bond from the buyer at face value (this is known as *physical settlement*) or by making a cash payment to the buyer for the difference between the face value of the bond and its then current market value (this is known as *cash settlement*). Either way, the buyer of the contract has been made whole for his loss on the bond.

This kind of contract is a credit default swap (CDS). The underlying debt obligation—in our example, the bond issued by IBM—is known as the *reference obligation*, and the obligor on that obligation is known as the *reference entity*. The amount of the reference obligation for which credit protection is purchased is known as the *notional amount*, and the price of the CDS—the percentage of notional amount that the buyer pays the seller—is known as the *spread*. Obviously enough, the better the credit of the reference entity, the lower the spread; the worse, the higher. CDSs thus transfer the credit risk associated with the reference obligation from the buyer to the seller, the seller receiving a fee in exchange for accepting the risk. The CDS is thus something like an insurance policy—insurance against a default on the underlying security.

CDSs can be used for many purposes. The most obvious of these, as in our example above, is hedging. Such hedging is not limited to corporate bonds, however. For virtually any debt obligation of any entity, it is possible to buy a CDS on that obligation. For example, suppose that a commercial bank makes a five-year loan for \$5 million at 8% to an industrial company. The bank may then buy a \$5 million CDS from a third party in order to hedge the bank’s credit risk. In return

for this credit protection, the bank will pay the third party a percentage of the notional value of the CDS, say 2% of the \$5 million (\$100,000), per annum in quarterly payments. This, of course, reduces the bank’s return on the loan from 8% to 6%. But, if the company defaults on the loan after three years, the bank will lose money on the loan but make money on the CDS because the seller of the CDS will pay the bank \$5 million, thus returning the bank’s principal on the loan. The buyer would then assume the loan from the bank, recovering what it may. In effect, the bank will have made a \$5 million loan for three years at 6% and have been repaid in full. Conversely, if the reference entity does not default on the loan, the bank will pay the seller the agreed upon amount for the five year term (\$500,000), thereby reducing the bank’s profit on the loan but eliminating the bank’s risk of loss due to default.

Although CDSs initially were designed and used for hedging against defaults, the buyer need not actually hold the reference obligation, but can instead enter into a CDS to speculate, or bet, on whether a *credit event*, such as a change in a reference entity’s credit quality, will occur. Since CDS spreads generally decrease as credit quality increases and increase as credit quality decreases, an investor may use this spread information to purchase a CDS on a company the investor speculates will soon default. For example, suppose that a hedge fund believes that the industrial company in our example above will soon default on the five-year loan. The hedge fund can purchase a \$5 million CDS from a bank, with the industrial company as the reference entity. Like the commercial bank above, the hedge fund will also pay the bank that issued the CDS a percentage of the notional value of the CDS, again say 2% of the \$5 million (\$100,000) for a CDS term of, say, two years. If the industrial company defaults after one year, the hedge fund will have paid the bank \$100,000, but will receive the CDS contract’s notional amount (\$5 million) less the remaining value of the loan, thereby making a large profit. Conversely, if the industrial company does not default, the hedge fund will pay the full amount on the CDS contract (\$200,000), will receive nothing in return, and so suffer a loss. The hedge fund, however, can mitigate its potential losses. If after the first year, the industrial company’s CDS spread has decreased, meaning that the company is less likely to default, the hedge fund can sell the bank a one-year \$5 million CDS at this lower spread, say, 1%. Thus, if the industrial company does not default, the hedge fund will pay the bank the full two-year CDS contract (\$200,000) and receive a payment for the one-year CDS contract from the bank (\$50,000). In effect, the hedge fund has reduced its losses from \$200,000 to \$150,000. These *naked* credit default swaps do not mitigate risk or even transfer risk. Instead, the contract allows the buyer in effect to bet on, and profit from, a downturn in the financial condition of the reference entities, e.g., issuer of the underlying securities.<sup>2</sup> A buyer that has purchased naked credit default swaps thus has an incentive to use its position affirmatively to destroy value and ensure default.<sup>3</sup> (Of course, market participants can make the opposite bets—that is, bet on and profit from an improvement in the financial condition

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of the reference entity—by *selling* CDS contracts, and market participants who do so have opposite incentives, i.e., incentives to see the reference entity avoid defaults.) On the other hand, naked CDSs are not necessarily bad. Like short-selling of a company's stock, buying CDSs sends a signal to the market about the state of the issuer of the underlying obligation, and that information may be valuable information that helps the market more accurately price the issuer's securities.

CDSs are also used to engage in a strategy known as capital structure arbitrage. Such arbitraging begins from the assumption that a company's stock price and its CDS spread are negatively correlated. For instance, when the company's stock price increases, the CDS spread decreases, resulting in the company's credit quality increasing since the company is less likely to default. Sometimes, a capital structure arbitrageur can exploit the spread between a company's CDS spread (debt) and stock price (equity) in an effort to capitalize on market inefficiencies that misprice these different parts of the same company's capital structure. For example, if a company's stock price has decreased but its CDS spread remains unchanged, the arbitrageur will assume that the CDS spread will subsequently increase. In this situation, the arbitrageur would buy a CDS contract with the company as the reference entity, while simultaneously buying the company's stock. Taking a long position on the CDS, the arbitrageur is short on the company's debt, but has hedged this position by being long on the company's stock. If, as expected, the CDS spread widens relative to the equity price, the arbitrageur will profit. For instance, if the stock price remains the same but the CDS spread increases, then the arbitrageur will sell an offsetting CDS at a higher spread, eliminating all this risk on the original CDS, and then sell the stock too, closing out the whole position at a profit equal to the difference in the spreads on the CDS contracts.

Through its various uses, a CDS allows the holder of a risky asset to shift the potential credit risk to someone else willing to bear it for a fee the CDS buyer is willing to pay. Now, contractual risk-shifting is generally efficient. That is, for various reasons, some parties are more efficient risk bearers than others—e.g., because they have superior information and know the expected cost of the risk to be low, because they can diversify in ways other people cannot, because they can pool risks and in effect self-insure them.<sup>4</sup> Moreover, CDSs allow parties to shift risk without having to sell the reference obligation—e.g., selling the bond, syndicating the loan, etc. CDSs thus increase the buyer's liquidation. With their risks from lending reduced, banks using CDSs are more willing to lend more money to more businesses, thus reducing the costs of credit for everyone.

Nevertheless, if the buyer of a CDS owns the reference obligation, the risk that the value of the reference obligation will decrease due to market forces (i.e. market risk) stays with the CDS buyer. For example, if the reference obligation is a bond paying 6%, the value of the bond will drop if interest rates increase. This is not a credit event, and so nothing at all happens under the CDS. The CDS provides insurance against *credit risk*, not market risk or other forms of risk.

While CDSs and similar instruments have been around for decades, it was only in the mid-1990s that JP Morgan built a "swaps" desk to create an active market in CDSs.<sup>5</sup> Within a

few years, the CDS became the safest way to parse out credit risk while maintaining a steady return, and the CDS market thus experienced massive growth. CDSs were written on virtually every kind of debt instruments available—corporate bonds, municipal bonds, asset-backed securities, structured investment vehicles, and even U.S. Treasury securities.<sup>6</sup> Credit default swaps were used to encourage investment in emerging markets by insuring the debt of developing countries. During the housing boom, when mortgages were pooled together and sliced into mortgage-backed securities, many financial institutions purchased CDSs to protect against default in these securities too.<sup>7</sup> By the end of 2000, the notional value of the CDS market totaled approximately \$900 billion.<sup>8</sup>

By the early 2000s, the CDS market had changed in three substantive ways. First, numerous new parties became active in the CDS market through the development of a secondary market, where these speculative investors would buy and sell CDSs from the sidelines without having any direct relationship with the reference entity. Second, CDSs were increasingly issued for asset-backed securities (ABSs) and mortgaged-backed securities (MBSs), as well as the obligations of structured investment vehicles that often owned ABSs and MBSs. Third, naked CDSs became extremely common. Eventually, the CDS market had a notional value of more than \$45 trillion.<sup>9</sup> The notional value of CDSs written on corporate bonds, municipal bonds and structured investment vehicles totaled approximately \$25 trillion, while the notional value of naked CDSs, speculating on numerous reference obligations, totaled approximately \$20 trillion.<sup>10</sup> The estimated notional value of these credit default swaps was thus almost four times the United State's Gross Domestic Product<sup>11</sup> and approximately five times the national debt.<sup>12</sup>

In interpreting the significance of these numbers, however, it is crucial to keep in mind that they refer to the aggregate *notional value* of all the existing CDS contracts in a given moment. Since only a small percentage of reference obligations will ever go into default, the vast majority of the CDS contracts by dollar value will be settled without the seller having to pay the buyer a penny. The cash flow on such agreements, therefore, will always be vastly less than the aggregate notional amount. Recall that the CDS is something like an insurance policy. If one buys a \$100,000 insurance policy, it is not actually worth \$100,000. The true value of the insurance policy is probably closer to zero—probably a little less than the premiums paid on the policy. Comparing the amount insured by CDSs (notional value) to the actual value (i.e. what someone would pay for it) of the stock market or the real value of any other real asset is thus misleading; it is to compare two quite different things.

The notional value of the CDS market is further increased because in many cases the same investor both buys and sells CDSs on the same reference obligation. The reason for this should be obvious. Sometimes, the investor is hedging, and having assumed some credit risk on the reference obligation, the investor then protects against that risk by buying protection in the form of another CDS. Compare how insurers reinsure risk: by reinsuring risks they have insured, insurers can both spread risks out over a large group of insurers and allow each such insurer to obtain a more diversified portfolio of risks. No

one would think, however, that reinsurance was bad because it increases the notional value of insurance policies. For example, if there is an office building in Manhattan worth \$100 million, and the owner insures it for the full value, and the insurer then reinsures \$90 million of the risk, and the reinsurer reinsures \$80 million of that \$90 million, and so on down the line, the total amount of “insurance” sold will total \$550 million. But it would be ridiculous to think that there was something amiss here because the \$550 million number so greatly exceeds the value of the building. The notional value of all the insurance and reinsurance policies has no relationship to the real value of the insured property—and this is just as it should be. Or again, in other cases, the notional value of CDS contracts is inflated because investors are engaged in capital structure arbitrage, and as market conditions change, they will attempt to profit sometimes by buying CDSs and sometimes by selling them, all with respect to the same reference obligation or reference entity. It is impossible to know how much of the CDS market represents such hedging or arbitraging, but the amount is certainly very significant, and the result is that the actual value of the CDS market is surely only a small fraction of that of the stock market.

The CDS market has remained essentially unregulated. One might think that CDSs would be regulated under the federal securities laws, especially the Securities Act of 1933 because Section 2 thereof defines “security” to include any “security future” or “investment contract,” which could reasonably be thought to include CDSs.<sup>13</sup> This is not the case. Instead, Section 2A of the Securities Act provides that “swap agreements,” as defined by the Gramm-Leach-Bliley Act of 1999, which includes credit default swaps, are exempt from the Securities Act. The Gramm-Leach-Bliley Act, also known as the Financial Modernization Act of 1999, amended not only the Securities Act, but also repealed parts of the Glass-Steagall Act of 1933.<sup>14</sup> Following the motivation of the Gramm-Leach-Bliley Act, in 2000 Congress passed the Commodity Futures Modernization Act (CFMA), which specifically removed CDSs and other derivative instruments from the scope of the Securities Acts. The CFMA does provide that CDSs are subject to the anti-fraud and anti-manipulation provisions of the Securities Acts as “security-based swap agreements,” but prohibits the SEC from taking preventative measures against fraud or manipulation with respect to security-based swaps.

Through the CFMA, credit default swaps are also excluded from the jurisdiction of the Commodity Futures Trading Commission (CFTC), which regulates certain other kinds of derivatives. Under the Commodity Exchange Act, CDSs are excluded because they are either (a) made between eligible contract participants, are subject to individual negotiation by the parties, and are executed over-the-counter, or (b) involve credit risk, credit measure, or an occurrence out of the parties’ control that is associated with a financial consequence.<sup>15</sup> CDSs are generally excluded from CFTC regulation because they are not considered “futures” under the Commodity Exchange Act, which requires that, unless a statutory exclusion applies, all futures contracts must be traded on a CFTC regulated exchange.<sup>16</sup> With the steady conversion of exchange-traded and over-the-counter (OTC) derivative

instruments, and the increasing volume of OTC derivative transactions, fear that these OTC instruments would not be enforceable, and ultimately illegal, created pressure for enacting regulatory exemption of OTC instruments.<sup>17</sup> Since these OTC derivative transactions were between sophisticated investors in directly negotiated transactions, it was argued that contract law provided adequate protection against fraud and additional regulatory oversight by the CFTC was unnecessary.<sup>18</sup>

Thus, since CDSs are neither “securities” under the Securities Act nor “futures” under the Commodity Exchange Act, they are essentially unregulated. Perhaps the most important consequence of this absence of regulation is that the market for credit default swaps is opaque. There is no easy way for anyone to know the total value of the CDSs written on any particular reference obligation or who holds long and short positions on any such obligation. In addition, since virtually anyone can buy or sell a CDS, each market participant has to make its own decision regarding counterparty risk—i.e., the risk that the counterparty to a CDS will be unable to perform its obligations thereunder as they come due.

## II. CDSs and the Current Financial Crisis

The current financial crisis was the product of policy mistakes by various government entities, including the Federal Reserve, as well as complex market failures and market forces, and to provide a full description of all the causes and effects of the financial crisis is well beyond this article.<sup>19</sup> This article will attempt, however, to explain the very minor role that CDSs have played in the crisis.

The interconnectedness of large financial institutions creates one kind of systematic risk. That is, because of the numerous and complex transactions between major financial institutions, there is a risk of a wide spread breakdown in the financial system (e.g., one financial institution after another becoming insolvent) resulting from a series of correlated defaults among financial institutions over a short period of time, perhaps being triggered by a single major event.<sup>20</sup> The theory is that, because of the web of obligations among large financial obligations, if one financial institution experiences a significant loss, the losses could spread to other financial institutions and ultimately undermine the stability of the entire financial system. Obviously, CDS contracts are one kind of obligation linking financial institutions together.

On one common interpretation, one cause of the current financial crisis was the materialization of such a systematic risk. Banks and mortgage companies issued subprime mortgages, which required little or no downpayment and were often issued to households with low incomes, few or no assets, and troubled credit histories.<sup>21</sup> Once sold to secondary buyers such as investment banks, these subprime mortgages were pooled and sliced to create MBSs.<sup>22</sup> Rating agencies, paid by the issuers, rated these securities, often declaring them to be extremely safe.<sup>23</sup> Sometimes the securities were securitized again—a second level of securitization. All these securities were either sold to final buyers or held on the balance sheets of the banks and brokerages.<sup>24</sup> In some cases, people created instruments derivative on the MBSs. Finally, many people wrote CDSs on these MBSs and securities derivative on them or on the

securities of entities (such as structured investment vehicles) that held such securities.

Now, CDSs written on these securities were generally a good thing, both for the parties that entered into these agreements and for the economy as whole. CDSs spread, and often even reduced, the risk associated with these instruments. This is a very important point. CDSs allow not just the transfer of risk but its actual reduction or even elimination. That is, when someone comes to an investment bank and asks the bank to write a CDS and the bank agrees, usually the bank has gone out and hedged the risk it just took on. Meaning, sometimes the bank acts as intermediary between two other market participants who have opposite positions on the reference obligation. The person wanting the CDS is long on the security; someone else is short. By writing the CDS the bank took a long position on the security, and then hedged it out by taking, in a transaction with the other person, a short position. The bank makes its money on the fees from doing this, not by actually taking an investment position on the underlying securities. That bank is, as it were, a middleman in the hedging market.

So the CDSs written on the MBSs and instruments derivative from them in part reduced the risk of such instruments and in part spread it out among a wider class of market participants. This is a wholly good thing because, by eliminating and spreading risk, it reduces the cost of capital. So far, so good.

But, if a market panic should start on the underlying mortgages, the panic—i.e., the irrational under pricing by the market—can spread through the financial structure, from the mortgages to the MBSs backed by them, to derivative securities based on the MBSs, and finally to the CDSs written on the MBSs and other securities. This is exactly what happened.

When housing prices started unexpectedly to decline in 2006-2007, mortgage delinquencies soared, and the securities backed by these subprime mortgages lost some of their value. As mortgage defaults rose, the likelihood that the parties who issued CDSs related to MBSs would have to pay their counterparties increased. Sellers of CDSs thus faced potential losses if the reference obligations on which they sold CDSs went into default and the sellers had to pay out on the CDS contracts. The value of the CDSs held on their books thus declined.

Now, under FAS 157, adopted by the Securities and Exchange Commission and Financial Accounting Standards Board, companies must determine the “market price” of certain types of assets, including at least some CDSs<sup>25</sup> and record such values on their books on a quarterly basis,<sup>26</sup> even if the company has no intention of selling the assets. Thus, if a bank makes a loan or buys a security and in the next quarter, that loan or security is only worth 50 cents on the dollar as revealed in market transactions, then the bank has to write down the value of the loan on its balance and recognize a loss on its income statement equal to half the value of the loan. Adopted in response to the Savings and Loans crisis and expanded after the Enron scandal, this “mark-to-market” system was intended to keep the financial system healthy and honest. But, in the context of a market panic, when market participants start pricing assets irrationally low, mark-to-market only exacerbates the panic. In a distressed market, where assets cannot be readily

sold, companies are forced to declare values at fire-sale prices, even though they have suffered no real losses, intend to hold the obligations to maturity, and will very likely be paid in full in accordance with the terms of the security.

This is exactly what happened to companies holding CDSs. Despite the fact that most of the reference obligations on the CDSs were not in default and were not likely to go into default, mark-to-market accounting rules required the CDS sellers to book accounting losses since the reference obligations were being traded at steep discounts or not traded at all. Many large financial institutions were forced to value assets at unrealistically low levels and take charges against their earnings accordingly. This has important ripple effects: if, for mark-to-market reasons, a financial institution has to recognize losses, then its own financial position appears to deteriorate, which will cause the value of its own debt obligations to decrease, which will cause CDSs written on those obligations to decrease in value, which will cause other market participants to have to recognize losses under mark-to-market rules—and so a vicious cycle can begin.

### III. What Happened to AIG

AIG is a global financial services holding company doing business in 130 countries.<sup>27</sup> It owns 71 U.S. based insurance companies and 176 other financial services companies.<sup>28</sup> State insurance departments regulate only AIG's U.S. insurance subsidiaries. AIG owns the largest commercial and industrial insurance company in the U.S. and the world's largest life insurance company.<sup>29</sup>

Through its non-insurance operations, especially a unit of AIG known as AIG Financial Products (AIGFP), AIG sold hundreds of billions of dollars of credit derivatives, particularly CDSs, on obligations ultimately backed by home mortgages.<sup>30</sup> AIG's policy was for AIGFP to conduct business on a “hedged” basis—that is, whatever risk AIGFP took on by selling a CDS, it would offset by a hedging transaction on the market, thus making its net exposure zero. Its profit would stem from the difference between the fees earned from selling the CDS and the cost of offsetting or hedging the risk in the market.

Approximately \$70 billion of AIGFP's CDSs were on “multi-sector” bonds, that is, bonds backed by student loans, credit card receivables, and residential mortgages.<sup>31</sup> Additionally, AIGFP wrote CDSs only on what AIG referred to as “super senior” bonds, which were viewed as extremely safe and better than AAA rated bonds.<sup>32</sup> These CDSs were listed on AIG's books at “par value” meaning that after analyzing them, AIG did not expect any losses.

When the financial crisis began, the reference obligations of the CDSs that AIG had sold plunged in value. As with other financial services companies, AIG was forced to mark-to-market the CDSs on its books, writing down their value not because of actual defaults on subprime mortgages or securities backed by them, but because of default fears and a dried up market, resulting in very depressed market prices for these reference obligations, especially collateralized debt obligations (CDOs)—derivative instruments based on MBSs on which AIGFP had written CDSs. In effect, AIG was forced to mark CDS positions at fire-sale prices as if AIG owned the reference securities, even

though a majority—probably a very large supermajority—of the reference securities did not default and probably never would default, meaning that AIG’s swap positions had value, even their full value, if held to maturity.

As AIG’s reported losses rose, there was a domino-like series of repercussions. AIG’s stock price fell dramatically. As the value of the reference obligations declined, the CDS contracts gave the buyers of the swaps the right to demand that AIG post collateral for its obligations under the swap should the reference obligation ever actually default. Typically, this collateral was cash or highly-rated securities such as treasury securities or municipal bonds. Further, as AIG recognized more and more mark-to-market losses, the credit rating agencies decided to downgrade AIG, and under the CDS contracts, AIG then had to post even more collateral in favor of the CDS counterparties. As CDS values continued to deteriorate, AIG was obliged to take more write-downs, requiring AIG to post more and more collateral each day. AIG’s counterparties on other, non-CDS transactions (such as counterparties in its securities lending program) also demanded that AIG post additional collateral or return investments. As a result, counterparties eventually demanded AIG post approximately \$35 billion in collateral.<sup>33</sup> While AIG easily had assets of the required value, including its insurance companies, the assets were not liquid, which meant that AIG could not immediately convert those assets to cash or cash-equivalents in order to satisfy the collateral calls. AIG was not short of capital, but it was short of cash because it could not turn most of its assets into cash quickly enough.

Recognizing AIG’s peril, New York Governor David Paterson worked with AIG to develop a proposal to stabilize the company while protecting policyholders. The plan would have allowed AIG to temporarily access about \$20 billion in excess surplus assets currently in its insurance companies by effectively selling some of the life insurance companies stock to AIG’s property insurance companies for certain liquid assets, especially certain municipal bonds.<sup>34</sup> AIG would have used the municipal bonds to provide the needed collateral. This exchange would give AIG access to the high quality assets needed to meet the collateral calls. The plan further provided that the amount of securities remaining in the companies be sufficient to pay all claims, meet statutory risk-based capital requirements, and still leave surplus capital. This is important because insurance companies are required to keep reserves to pay future claims, which depends on the type of insurance.

Eventually, when it became clear that AIG needed even more money than Governor Paterson’s plan could provide, the Federal Reserve and the Treasury Department attempted to identify private-sector approaches to raise the necessary funds. With no commercial private sector rescue to be found in time, and worried that an AIG default would trigger subsequent defaults leading to a global financial system meltdown, the Federal Reserve, with the support of the Treasury, provided an emergency credit line to AIG to allow it to meet its obligations. The Federal Reserve initially proposed an \$85 billion facility. The two-year loan would have an interest rate of LIBOR plus 8.5% and effectively grants the U.S. government a 79.9% equity stake in AIG in the form of warrants called equity participation notes.<sup>35</sup> The loan would facilitate a process under which AIG

could sell certain subsidiaries in an orderly way, not at fire sale prices, meet all its obligations, and minimize disruption to the financial and insurance markets.

In taking this extraordinary action, the Federal Reserve determined that an AIG collapse could add to already significant levels of financial market fragility and lead to substantially higher borrowing costs, reduced household wealth, and materially weaker economic performance. The purpose of the bailout was to assist AIG in meeting its obligations and facilitate a process under which AIG can sell certain subsidiaries, with the least possible disruption to the overall economy. But because they were concerned that the bailout would exacerbate moral hazard and encourage inappropriate future risk taking by other financial institutions, the Federal Reserve and the Treasury Department imposed on AIG certain onerous terms in addition to the merely financial ones noted above. The loan from the Federal Reserve is secured by all of the assets of AIG and of its primary non-regulated subsidiaries, giving the Federal Reserve some protection even if markets continue to collapse. Furthermore, the Federal Reserve has certain control rights, including the right to veto any dividend payments to common and preferred shareholders. And, of course, the shareholders of AIG were massively diluted by the 79.9% equity stake given to the government.

Unfortunately, even the initial \$85 billion bailout failed to stabilize AIG because the company’s financial condition continued to deteriorate as the credit crisis continued. AIG was burning through cash and was saddled with difficult-to-value, mortgage-related securities that had fallen sharply in value and continued to deteriorate. The federal government thus decided to restructure the bailout to provide additional relief. While AIG will retain the initial \$85 billion emergency line of credit, under the new plan AIG will receive supplement help from the New York Federal Reserve Bank in the form of two new lending facilities, each focusing on a particular portfolio of mortgage-related securities—residential mortgage-backed securities and multi-sector CDOs. In one facility, the New York Federal Reserve Bank will lend up to \$22.5 billion to a newly formed limited liability company to finance the purchase of residential MBSs held by an AIG subsidiary, AIG Securities Lending Corp., under AIG’s U.S. securities lending program. AIG will make a \$1 billion subordinated loan to the LLC and bear the risk for the first \$1 billion of any losses on the portfolio. The loans will be repaid from the cash flows produced by these assets, as well as proceeds from any sales of these assets. The New York Federal Reserve Bank and AIG will share any residual cash flows after the loans are repaid. In the second new facility, the New York Federal Reserve Bank and AIG will provide \$30 billion and \$5 billion, respectively, to fund the purchase of multi-sector CDOs on which AIGFP had written CDS contracts.<sup>36</sup> AIG will bear the risk for the first \$5 billion of losses among the securities purchased. The CDS counterparties will retain the collateral received from AIG and will sell the CDO reference securities to the new company at market prices averaging 50 cents on the dollar.<sup>37</sup> Any counterparty that does not participate will bear the risk that AIG will not be able to meet its obligations under the CDS. This buy-back proposal will allow AIG to unwind the CDSs it previously wrote and prevent any additional collateral

calls on those swaps. Any increase in the CDOs' value or pay off over time will be apportioned between the Federal Reserve and AIG, with most going to the Federal Reserve.

#### IV. Should Credit Default Swaps Be Regulated?

Developing a stronger, more resilient financial system requires extensive analysis and not mere quick regulation. Indeed, in some cases, it is clear that government regulation—such as FAS 157's mark-to-market rules—*exacerbated* the financial crisis, and even played a significant role in causing it. To their credit, the SEC and Congress have recognized the unintended consequences of FAS 157 and are further examining mark-to-market accounting to prevent accounting-based failures of financial institutions when markets freeze or otherwise go into panics.<sup>38</sup> Thus, while the impulse of Congress may be to regulate, the lesson to be drawn from the financial crisis, at least with respect to CDSs, is far from clear. Congress must be cautious of quick *panic* regulation, which ignores the benefits of market flexibility and, therefore, impedes future market innovation.<sup>39</sup>

In light of the recent financial crisis, many are pressuring Congress to repeal the swaps exclusion included in the Commodity Futures Modernization Act of 2000 and regulate CDSs in order, it is said, to protect investors and prevent destabilization of the financial markets. Still others, a minority, argue against CDS regulation. These people say that the real financial crisis issue was not CDSs, but over-leveraged balance sheets, poor management decisions, and flawed business plans. While CDSs neither caused nor, in any important way, exacerbated the financial crisis, it seems that CDS regulation is inevitable. Still, the *right kind* of CDS regulation would likely do little harm and much good.

The magnitude and importance of the CDS market have led to proposals for a formalized CDS exchange with standardized contracts. An open and transparent market for CDSs could reduce confusion regarding valuation. Standardizing the terms of CDS contracts would reduce their opaque nature and reduce systemic risk because the nature of the obligation and amount of the obligation would be better known. Additionally, it is argued that exchange trading of credit default swaps would eliminate the counter party risk, as the solvent exchange-clearing corporation would be the responsible party.<sup>40</sup> The exchange would also be able to better monitor the risks undertaken.

On the other hand, this system could itself introduce new risks. For, in the exchange-clearing house proposals, all exchange participants guarantee the clearing house, and so each becomes potentially liable for the failure of the weakest members, and the weakness of the credit of such members may be unknown. Nevertheless, the CDS market is already moving toward centralized clearing and settlement. In recent months, Citadel and the CME Group have partnered to build a clearinghouse for credit default swaps.<sup>41</sup>

Believing that the unregulated use of CDSs contributed to the Wall Street meltdown, New York Governor David Paterson declared that New York would regulate certain aspects of the CDS market beginning January 1, 2009. As proposed, the New York regulation would have only regulated about a fifth of the

sprawling CDS market, i.e., only CDSs within the jurisdiction of New York State.<sup>42</sup> Under the plan, the state's insurance department would regulate CDSs as insurance products in situations where the buyer of the swap also owns the reference security. Only licensed insurers would be able to issue a CDS. New guidelines would also increase financial institutions' minimum capital requirements and reserves. The regulation was aimed at preventing financial institutions from engaging in exorbitant amounts of CDSs and at guaranteeing that the CDS issuer was solvent. The New York state regulation was delayed "indefinitely," however, due to the progress made by federal regulators in creating a regulated, central clearinghouse.

State-by-state regulation, as suggested by New York, would be impractical. Financial markets work best when they are competitive, fair, transparent, and stable. Even if financial crises are unavoidable due to the unfettered ability to innovate, compete, and evolve, their disruptive effects can be significantly reduced through greater transparency. For the most part, Alan Greenspan was right: CDSs are efficient contracts that reduce risk; however, opaque naked CDSs can be somewhat problematic, and they can exacerbate other problems in a financial panic. Although these speculative naked CDSs serve a purpose and should not be outright prohibited, requiring institutions to disclose their CDS positions if they reach certain values, e.g. more than 5% of the value of the class of securities, would expose the magnitude of risks parties are assuming and, by putting more information in the market, would allow other parties to price securities and obligations more efficiently. Particularly since these CDSs are sold and resold among financial institutions, an original buyer may not know that a new, potentially weaker entity has taken over the obligation to pay a claim. Regulating these CDSs by requiring verification that parties to the CDS can meet its obligations will create greater transparency and help prevent systemic risk.

#### Endnotes

- 1 Frank Partnoy & David A. Skeel, Jr., *Debt as a Lever of Control: The Promise and Perils of Credit Derivatives*, 75 U. Cin. L. Rev. 1019, 1022 (2007).
- 2 *The Causes and Effects of the AIG Bailout: Hearing Before the H. Comm. on Oversight and Government Reform*, 110th Cong. (Oct. 7, 2008)(statement of Eric Dinallo, Superintendent, N.Y. State Insurance Department).
- 3 Partnoy, *supra* note 1, at 1036.
- 4 Richard Posner & Steven Rosenfield, *Impossibility and Related Doctrines in Contract Law: An Economic Analysis*, 6 J. LEGAL STUD. 83 (1977).
- 5 Matthew Philips, *The Monster that Ate Wall Street*, NEWSWEEK, Oct. 6, 2008, available at <http://www.newsweek.com/id/161199>.
- 6 CDSs written on U.S. Treasury securities may seem odd since it amounts to taking someone else's credit as being better than the U.S. government's.
- 7 *Id.*
- 8 Gretchen Morgenson, *Arcane Market is Next to Face Big Credit Test*, N.Y. TIMES, Feb. 17, 2008, available at [http://www.nytimes.com/2008/02/17/business/17swap.html&OQ=\\_rQ3D2Q26pagewantedQ3D1&OP=7f2f569dQ2FcJzTcQ5DYDxiYYnlc\\_oorcolcCscTQ5ExeQ5CzxcCxsJVFQPQ24nQ239](http://www.nytimes.com/glogin?URI=http://www.nytimes.com/2008/02/17/business/17swap.html&OQ=_rQ3D2Q26pagewantedQ3D1&OP=7f2f569dQ2FcJzTcQ5DYDxiYYnlc_oorcolcCscTQ5ExeQ5CzxcCxsJVFQPQ24nQ239).
- 9 Richard R. Zabel, *Credit Default Swaps: From Protection to Speculation*,

PRATT'S JOURNAL OF BANKRUPTCY LAW (Sept. 2008), available at <http://www.rkmc.com/Credit-Default-Swaps-From-Protection-To-Speculation.htm>.

10 *Id.*

11 *Hedge Funds and the Financial Markets Hearing Before the H. Comm. on Oversight and Government Reform*, 110th Cong. (Nov. 13, 2008)(statement of Kenneth Griffin, CEO, Citadel Investment Group).

12 *Hedge Funds and the Financial Markets Hearing Before the H. Comm. on Oversight and Government Reform*, 110th Cong. (Nov. 13, 2008)(statement of George Soros).

13 Section 2 of the Securities Act, codified in 15 U.S.C. §77a et seq.

14 Under the Glass-Steagall Act, bank holding companies were prohibited from owning other financial companies. The main purpose of the Glass-Steagall Act was to separate the commercial banking and investment banking industries, to restore order to the American commercial banking system after a large portion of it collapsed in early 1933. With the commercial banking system restored and most financial services companies already offering both saving and investment opportunities, many of the largest banks, brokerage firms, and insurance companies desired the Gramm-Leach-Bliley Act. The purpose of the Gramm-Leach-Bliley Act was to enhance competition in the financial services industry by providing a framework for the affiliation of banks, securities firms, insurance companies, and other financial service companies, which had been prohibited under the Glass-Steagall Act.

15 Noah L. Wynkoop, *The Unregulables? The Perilous Confluence of Hedge Funds and Credit Derivatives*, 76 *FORDHAM L. REV.* 3095, 3099 (May, 2008).

16 Dean Kloner, *The Commodity Futures Modernization Act of 2000*, available at <http://www.stroock.com/SiteFiles/Pub134.pdf>.

17 *Id.*

18 Shadow Financial Regulatory Committee, *Statement of the Shadow Financial Regulatory Committee on The Regulation of Derivative Instruments*, Sept. 25, 2000, available at [http://fic.wharton.upenn.edu/fic/Policy%20page/20051114\\_ShadowStatement163%5B1%5D.pdf](http://fic.wharton.upenn.edu/fic/Policy%20page/20051114_ShadowStatement163%5B1%5D.pdf).

19 For a more in-depth analysis see Charles R. Morris, *The Trillion Dollar Meltdown* (PublicAffairs 2008); see also MARK ZANDI, *FINACIAL SHOCK: A 360° LOOK AT THE SUBPRIME MORTGAGE IMPLOSION, AND HOW TO AVOID THE NEXT FINANCIAL CRISIS* (JIM BOYD ED., PEARSON EDUCATION, INC. 2009).

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21 MARK ZANDI, *FINACIAL SHOCK: A 360° LOOK AT THE SUBPRIME MORTGAGE IMPLOSION, AND HOW TO AVOID THE NEXT FINANCIAL CRISIS* (JIM BOYD ED., PEARSON EDUCATION, INC. 2009).

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23 *Id.*

24 *Id.*

25 *The Causes and Effects of the AIG Bailout: Hearing Before the H. Comm. on Oversight and Government Reform*, 110th Cong. (Oct. 7, 2008)(statement of Martin Sullivan, former President and CEO, AIG).

26 *Id.*

27 *The Causes and Effects of the AIG Bailout: Hearing Before the H. Comm. on Oversight and Government Reform*, 110th Cong. (Oct. 7, 2008)(statement of Eric Dinallo, Superintendent, N.Y. State Insurance Department).

28 *Id.*

29 *Id.*

30 *Id.*

31 *The Causes and Effects of the AIG Bailout: Hearing Before the H. Comm.*

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32 *Id.*

33 Serena Ng and Liam Plevin, *New AIG Rescue is Bank Blessing*, *WALL STREET JOURNAL*, Nov. 12, 2008, available at [http://online.wsj.com/article/SB122644992998319181.html?mod=googlenews\\_wsj](http://online.wsj.com/article/SB122644992998319181.html?mod=googlenews_wsj).

34 *The Causes and Effects of the AIG Bailout: Hearing Before the H. Comm. on Oversight and Government Reform*, 110th Cong. (Oct. 7, 2008)(statement of Eric Dinallo, Superintendent, N.Y. State Insurance Department).

35 Matthew Karnitschnig, et al., *U.S. to Take Over AIG in \$85 Billion Bailout; Central Credit Dries Up*, *WALL ST. J.*, Sept. 16, 2008, available at <http://online.wsj.com/article/SB122156561931242905.html>.

36 Ng, *supra* note 23.

37 *Id.*

38 *The Causes and Effects of the AIG Bailout: Hearing Before the H. Comm. on Oversight and Government Reform*, 110th Cong. (Oct. 7, 2008)(statement of Martin Sullivan, former President and CEO, AIG)(stating that the week prior to the hearing the SEC and Congress recognized the effect of FAS 157 and the unintended consequences for financial institutions when markets seize up); see also Report and Recommendations Pursuant to Section 133 of the Emergency Economic Stabilization Act of 2008: Study on Mark-To-Market Accounting, Securities Act Release No. 2008-307 (Dec. 30, 2008), available at <http://www.sec.gov/news/studies/2008/marktomarket123008.pdf> (recommending improvements to existing practice which include reconsidering current accounting impairments and developing additional guidance for determining an investment's fair value in inactive markets, including situations where market prices are unavailable).

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40 *Hedge Funds and the Financial Markets Hearing Before the H. Comm. on Oversight and Government Reform*, 110th Cong. (Nov. 13, 2008)(statement of David S. Ruder, Professor of Law Emeritus, Northwestern University School of Law, Former Chairman, U.S. Securities and Exchange Commission (1987-1989)).

41 *Hedge Funds and the Financial Markets Hearing Before the H. Comm. on Oversight and Government Reform*, 110th Cong. (Nov. 13, 2008)(statement of Kenneth Griffin, CEO, Citadel Investment Group).

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