Credit Default Swaps: Risk Management Tools or Fuel for the Fire?

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One of the most innovative creations in modern finance, the credit default swap, made its debut in the bull market of the 1990s under the watchful eyes of the world and under the supervision of none. The securities market, at its heart made up of stocks and bonds, became ever more complex during this era of financial excess, as new products were invented and sold long before any regulative body could evaluate their value in and effect on the market. It was the rampant deregulation of the 1980s and 90s that allowed these products, creating the finance heydays that would ultimately cause the crisis of 2008. Banks and investment firms have always looked for new tools to gain higher yields while carrying less risk, but this new lax oversight gave them the freedom to use these new tools without ever considering externalities. And credit default swaps proved to produce heavy externalities.

There exist two kinds of credit default swaps, which both address the problem of potential loss in the event that a security decreases in value. The first, a standard credit default swap, works as an insurance policy against a security in one's portfolio. The second, a so-called "naked" credit default swap, is an insurance policy against a security in someone else's portfolio. This seemingly small, one-step removal from the underlying security makes all the difference, transforming the swap from a loss-prevention tool into a gambling strategy; a gambling strategy that, in 2008, meant foreclosed homes made investors a lot of money. While standard credit default swaps attempt to offer a solution to a problem, naked credit default swaps aim to exploit a problem. It is this exploitation that debases naked swaps, as they serve no real purpose except to profit those who exacerbate problems in the financial world, and it is for this reason that naked credit default swaps must be prohibited.

To properly understand the issues with credit default swaps and their role in modern finance, it is necessary to first understand the financial world of the past. Finance is a unique

field which requires the interworking of many separate yet incredibly interconnected industries in the hope of turning some money into more money. When working properly – that is, when everyone thinks they are making enough money – the financial sector is more or less left alone. But when the financial façade begins to crack and investors stop making money or even begin to lose it, regulation pushes its way into the financial world with or without invitation.

Only a few short years after the stock market crash of 1929, still in the throes of the Great Depression, President Roosevelt signed into effect the Banking Act of 1933. Along with establishing the Federal Deposit Insurance Corporation (FDIC), the law also included four provisions referred to as the Glass-Steagall Act which required the separation of commercial and investment banks (Carpenter and Murphy 5-6). In essence, the act stated that banks could either hold public money (usually in the form of checking and savings accounts), or could speculate in the securities market, but could not do both. At the time, there was widespread belief that banks had been using public money to play the stock market, leaving the American public to pick up the tab when those stocks plummeted. Desperate to restore public faith in the banking system, Congress believed that "separation between bankers and brokers would reduce the potential conflicts of interest that were thought to have contributed to the speculative stock frenzy before the Depression" (Labaton 1). The ultimate goal of this act was to prevent banks from wagering with the public's money. Now, those who wanted only a savings and checking account could feel that their money was safe in a commercial bank, and those who wanted to invest their money could give it directly to an investment firm specifically for that purpose, and bank customers were no longer unwittingly tangled up in the stock market.

Though it did take some time, investors did eventually renew their trust in the financial sector. From the 1970s onward, the financial service industry grew almost exponentially; rising

from only 10 percent of national corporate profits in the early 1980s to 40 percent by 2007. And a profit increase that drastic required something more than just an increase in customers; it required an increase in products (Quiggin 46). New innovations were being made every day and sold to customers as the must-have finance product of the season at a premium. But this new source of titanic profit was coming from investments and trading, and the Glass-Steagall Act severely hampered the ability of banks to use these innovations, as they were – technically – barred from most forms of trading. Thankfully for the banks, no law is free of loopholes, and by 1990, most American banks had found – and slipped through – that loophole. No law banned U.S. banks from using public funds to make investments in a foreign country. This meant that more and more money that used to go through the U.S. was now being diverted elsewhere. The banks "had gotten back into the trading business, except that they did it from London instead of New York […] as banking changed, U.S. policy had to change, too, or it would risk losing its most profitable operations to the City of London" (McLean and Nocera 54). And that was a risk no one seemed willing to take. So while the government pondered how to keep a tidal wave of funds from flowing overseas, American-based financial institutions continued to beef up their legally questionable finance operations.

One of the most profitable of these operations was the mortgage-backed security. Thirty-year mortgages carried a lot of risk, risk that banks did not want on their books, and in 1970, Ginnie Mae figured out how to offload that risk. Ginnie Mae was not a bank, but was instead a government-sponsored enterprise (GSE) meant to buy up mortgages from commercial banks and savings and loans (known as "thrifts") to free up capital so that the banks and thrifts could make more loans. But doing so tied up all of Ginnie Mae's capital, capital that the GSE wanted to use for investing, and the way to fix that was to create the mortgage-backed security (MBS)

(McLean and Nocera 7). What all mortgage underwriters disliked was the inconsistency of interest payments; interest rates were bound to change over a 30-year period, and homeowners would refinance, changing their interest payments to the lowest amount possible. If a homeowner either prepaid their mortgage or defaulted on it the interest payments dried up entirely. So what Ginnie Mae did was sell the interest payments off to investors, getting rid of the fluctuating payments but still holding the risk if the borrower defaulted. These packages were generally viewed as incredibly low risk, as Ginnie Mae, a government-sponsored enterprise, had an unspoken guarantee backed by the United States government, and investors ate them up. It was these MBSs that drove banks to petition the repeal of Glass-Steagall:

> Firms like Bank of America and Citibank saw that fees for putting together these packages [made up of MBSs] ended up with investment banks, and they too wanted access to this lucrative business. Similarly, investment banks looked to secure upstream supply of mortgages by taking over originators so they could apply their deal structuring expertise on a larger scale. (Fligstein and Goldstein 45)

But for the highly popular MBS to work, it necessarily involved both banks and investment firms. To those in the industry, it seemed only logical that the need for separation between the two had run its course, and, in 1999, Glass-Steagall was overturned and a new law was adopted. The new legislation, called the Gramm-Leach-Bliley Act, was an attempt to update U.S. banking laws to avoid obsolescence. If the rest of the world was innovating in ways that required collusion between commercial banks and investment firms, the U.S. had to do the same or become irrelevant.

The idea was that by keeping up with overseas investments, the U.S. would maintain its hold on the financial sector, whereas preserving outdated legislature would stunt U.S. finances and the funds directed at American investments would quickly be diverted to foreign markets. Senator Phil Gramm, one of the three congressmen for whom the act was named, stated, "The world changes and we have to change with it […] Glass-Steagall, in the midst of the Great Depression, came at a time when the thinking was that the government was the answer. In this era of economic prosperity, we have decided that freedom is the answer" (Labaton 2). This idea was shared by many, and the Gramm-Leach-Bliley Act was approved by a landslide in both the House and the Senate. President Reagan's deregulation policies had led to what – at the time – was the longest peacetime economic expansion, while President Clinton's focus on free trade led to an even longer economic boom. It seemed an invisible hand could guide the markets better than the U.S. government. Yet that same invisible hand had caused the worst economic catastrophe in American history; the prosperity of the 1980s and 1990s led not only to freedom, but also to mass amnesia about why these freedoms had been reined in in the first place. By forgetting the past, the U.S. had doomed itself to repeat it in a constant cycle of economic booms and busts, and failure to curtail complex financial schemes made the next cycle all the more violent.

After the passing of Gramm-Leach-Bliley, financial activities began to grow exponentially. To stay one step ahead of competitors, banks pressured their trading desks to come up with ever more innovative concepts, which meant increasingly more complex dealings. These dealings came not only from newfound freedom, but also newfound opacity. The new banking regulations had left little in the way of oversight; no one seemed to be watching the financial sector, and it seemed no one wanted to.

In the wake of this new regulation, the already flourishing financial sector branched into ever more complex commodities. Young geniuses – called "quants" in reference to their quantitative abilities – from the fields of economics, math, and computer science were brought in to think up new products which the bank managers immediately sold to customers. The banking system barely resembled its former self:

> Its increasing complexity stemmed from the rise of large, diversified financial institutions, often with operations spanning the globe. These organizations created specialized entities to pursue new products and markets. In many cases, they located the divisions far away from corporate headquarters, in places friendly to innovation. […] This specialization of roles meant that nobody had a coherent view of the rising complexity of the overall set of activities in which each financial institution was engaged in. (Guillen and Suarez 265)

These products took many forms, but they all served two purposes: to generate new revenue streams for the bank, and to diminish the capital the bank had at risk. By breaking simple transactions into bits and pieces, the "quants" were separating the risky aspects of a trade from the (relatively) safe ones. The bank then kept the safe pieces for themselves and sold the risky pieces to investors, either by promising high return because of the riskiness, or by convincing the investors that the new security did not carry any risk at all.

It was J.P. Morgan that took the most care in crafting these new products, with a near obsession to manage risk. The "quants" they employed – some of whom were actual rocket scientists – were capable of constructing complex models that they turned into saleable products. These products were "designed to shift risk from one firm's books to another's […] the original security remained on the first firm's book, but the risk it represented had moved. These new

products were called derivatives, because they were 'derived' from another security" (McLean and Nocera 52-53). Similar to the MBS, derivatives did not make an asset less risky, but instead distributed the risk across more players.

Since these derivatives were designed with the intent to minimize the potential loss to any one investor, banks believed that this reduced risk deserved reduced capital. Capital requirements instruct that for every dollar outstanding (used to fund a loan or investment), banks have to hold a certain percentage in reserve, to be kept in the bank and not used. As it stood at the time, a relatively safe loan required as much capital as an incredibly risky loan, and banks wanted to change that. This idea of risk-based requirements was beginning to gain support worldwide, leading to the formation of the Basel Committee who had the task of setting up global capital requirements for what was becoming an increasingly global economy, requirements they named Basel I:

> Prior to Basel I, every asset on a bank's books, no matter how risky, required the same amount of capital. Yet as banks broadened into derivatives and other areas that went well beyond commercial lending, it became increasingly clear that different assets had different risk […] Basel's solution was to adopt what it called risk-based capital requirements. That is, the amount a bank had to put aside in capital would depend on the riskiness of the asset. (McLean and Nocera 59)

To the layman, Basel I looked like regulation – rules banks had to play by that would make the financial world more stable for everyone. But to those who understood what derivatives could do, this was just one more way the big banks had convinced the powers that be that they could do what none could: negate risk. By getting lowered capital requirements because using derivatives supposedly offset the risk, the banking world was essentially granted

an increased allowance and extended curfew by tricking its dimwitted parents. And what no one bothered to look at was where the risk was really going. Prior to the invention of risk management products, if Bank A put $100 million into a security that went bust, Bank A lost $100 million and then borrowed from Bank B until profits were back up. With derivatives, if Bank A had a $100 million security that it then sold to Bank B, Bank B would then sell a $50 million derivative of that security to Bank C, and Bank C would sell a $20 million derivative of their derivative back to Bank A.. If the underlying security went bust, all three banks would lose money. The risk was never mitigated, it was multiplied. Derivatives had shifted risk from individual banks to the entire financial system; one collapse could bring down the entire system, and the economy with it.

One of the most popular of these derivatives came about almost as proof-of-concept that risk could be reduced completely. As the godfather of risk management, it's no surprise that J.P. Morgan created the world's first credit default swap (CDS). The problem was that, as large corporations found new ways to fund their day-to-day operations, they were using bank loans less and less. Instead, they turned to banks only for large loans in times of emergency. The banks hated these loans not only because they were low interest, but also because the lump sum payout required large amounts of capital to be tied up in fulfilling the Basel requirements. Though Basel now adjusted capital requirements based on risk, it had very limited categorical definitions of risk, a decision the banks took issue with. The problem was that "although Basel may have viewed all commercial loans as equally risky, J.P. Morgan certainly did not. Was a loan to Walmart really as risky as a loan to Kmart?" (McLean and Nocera 61). If they wanted to free up capital, J.P. Morgan needed a way to demonstrate that they could offset the risk of a corporate loan, and the CDS was that way.

In 1994, J.P. Morgan got the chance to test their credit default swap, led by derivatives saleswoman Blythe Masters. That year, Exxon went to J.P. Morgan for a credit line of $4.8 billion after the catastrophic oil spill of the *Exxon Valdez*. This was exactly the kind of loan the bank hated to make, as it would require hundreds of millions of dollars to be held up in reserves. But Masters saw an opportunity. With an idea in mind, "she convinced the European Bank for Reconstruction and Development (ERBD) in London to participate in a swap deal where it assumed the default risk for the loan, with J.P. Morgan paying it steady fees for doing so" (McLean and Nocera 63). ERBD loved the deal, because, as there was virtually no risk of Exxon defaulting, it felt like free money. J.P. Morgan never really expected Exxon to default, but simply wanted the peace of mind that came from knowing they would not be left holding the bag if a default did occur. But more than anything, J.P. Morgan loved the deal because it proved there was a market for credit default swaps. What made this different from later CDSs was the knowledge and motives of the parties involved. ERBD was a sophisticated financial body, and understood that, though unlikely, if Exxon did default, they would have to pay J.P. Morgan millions, if not billions, of dollars. For that reason, J.P. Morgan was paying a very high premium to cover that possibility. And J.P. Morgan felt confident that Exxon would repay the loan; they had no hopes of cashing the CDS, they simply wanted to be able to claim that they had mitigated the risk so they could lower their capital reserves as per Basel I. To the extent that it was possible, the first credit default swap had nothing but the most honorable of intentions.

It is these standard credit default swaps which have a use that can play a valid role in the world economy, but not so with their redheaded stepbrother, the naked credit default swap. The only valid use of naked credit default swaps is to make money from the misfortune of others. The idea behind the first credit default swap was simple: J.P. Morgan wanted to buy insurance to

lower their capital requirements and to protect against loss in the unlikely event that Exxon defaulted on their loan, and that was the premise on which all subsequent CDSs were built. But when investors began using naked CDSs to buy protection against securities they did not own, they were building on unsolid ground.

A credit default swap most often begins with one party who owns a security and, because they wish to offset the risk of their security, they look for someone to offer them risk protection. The owner of the security – called the protection buyer – pays a quarterly premium to a protection seller, and in return the protection seller agrees to make a payment of a predetermined amount – called a contingent payment – in the event that they security goes into default. In the terminology of a CDS agreement, a default is defined as any one of eight "credit events." These credit events are very specific events that deteriorate the value or credit quality of a security (Anson, Fabozzi and Choudhry 50-58). These events refer to the issuer, which is the entity (person, corporation, or sovereign nation) that issued the original security; e.g., if an investor buys a CDS for 100,000 shares of GM, the issuer is General Motors. In order for the protection buyer to collect a contingent payment, General Motors must experience a credit event.

Credit default swaps are known as over-the-counter (OTC) derivatives, which means they are not traded in a market and are instead individually negotiated. There is no forum, no New York Stock Exchange, for swaps, but over the years many OTC derivatives have risen in addition to CDSs, and so, in 1985, the International Swaps and Derivatives Association (ISDA) was formed to produce a standard format for derivatives deals. One of their most important publications was the *1999 ISDA Credit Derivatives Definitions*, which delineates the eight incidents that qualify as credit events (Anson, Fabozzi and Choudhry 57-58).

Many of these credit events are difficult to understand and even more difficult to prove, often requiring outside experts. But there are two types of credit events which are often the most public and the most devastating: bankruptcy and downgrade. Bankruptcy is fairly straightforward; the issuer must either file bankruptcy with the court, or have private action taken which mirrors a court-directed bankruptcy. A downgrade is a credit event wherein the issuer has its credit rating reduced, or is simply no longer rated by a recognized rating agency (Anson, Fabozzi and Choudhry 60-61). In both cases, the issuer will likely see a drop in the value of its securities, which will mean losses for any investors holding those securities. In theory, should an issuer suffer a credit event, a credit default swap will allow investors to recoup some of their losses. In practice, should an issuer suffer a credit event, a credit default swap will trigger a chain reaction of payouts and losses.

Though it sounds like a complete financial meltdown, these payouts most often produce a fairly stable market. The idea behind a credit default swap is not to retain full value of a security, but to minimize loss, so protection buyers buy protection for only a percentage of the security's face value. This means that the value must drop by a certain percentage before they can even discuss a contingent payment, and in the meantime, they are making significant premium payments to the protection seller. Combine these factors with the fact that most CDSs have a cap on their contingent payments, and what results is a market wherein the protection sellers never, as a whole, pay more than the protection buyers pay in premiums. Just like home owners' insurance, the total money paid out is rarely more than the premiums collected; credit default swaps work. It is their naked counterparts that do not.

More than perhaps any corporation, AIG learned the hard lesson about naked credit default swaps. AIG was an insurance corporation, but, like everyone else, they wanted to enter

the fast-money world of derivatives, so they started their own investment branch, named AIG Financial Products, or AIG-FP (McLean and Nocera 72-74). AIG-FP owned some mortgage-backed securities, but it mostly sold protection against those and other MBSs in the form of both standard and naked credit default swaps, meaning they sold insurance to people who owned a security they didn't want to lose money on, and to people who were willing to pay a quarterly premium on a security they didn't own in the hopes of a large insurance payout when that security lost money. None of this was particularly unusual at the time. What was unusual was that AIG was not buying any CDSs, but only selling. The company viewed a CDS like any other insurance policy, and the company was in the business of selling insurance, not buying it. This meant that if, somehow, all the swaps came due, AIG would have a lot of money going out and no money coming in. And then, in July of 2007, the financial world reeling after the collapse of Bear Stearns, panic began to invade CDSs. As is common in finance, the collapse of one branch causes a sudden fear that the entire institution is crumbling, and AIG had no plan for a run on the bank. Almost no one at AIG-FP saw themselves in any real risk if the market began to crash, and those who did believed it to be a long time off, so everyone was shaken when, on July 31, Goldman Sachs claimed that AIG-FP owed them $1.8 billion due to a downgrade in $20 million of underlying securities. Goldman was claiming that the securities AIG had insured had dropped in value enough to trigger a contingent payment. As the value of the underlying securities continued to drop, Goldman increased its contingent payment, and other counterparties joined on the band wagon. By November, Bank of Montreal was demanding $41 million, UBS $40 million, Merrill Lynch $610 million, French bank Societe Generale $1.7 billion, and Goldman's demand had risen to $3 billion (McLean and Nocera 324-331). These demands were

coming from counterparties holding both standard and naked CDSs, but it was not these demands that ultimately brought down AIG.

After months of arguing and not being paid, Goldman Sachs came up with a Plan B. Frustrated with AIG, Goldman – an investment firm whose published valuations of other corporations were widely read within the industry – began aggressively marking down securities owned by its competitors. Unfortunately, not everyone reading these publications knew that Goldman was deliberately attacking competitors, and believed the valuations of one of the most respected investment firms in the county, the result of which was that many of their tactics succeeded as others followed suit and began downgrading theses securities as well. In addition, the investment firm began attacking AIG specifically when their insurance analyst, Tom Cholnoky, issued a report entitled "Don't Buy AIG." In a review of the report, *Institutional Investor* magazine accused Cholnoky of publishing it with the hope that it would result in rating downgrades that would lose their competitors money. But what no one at the time knew was that Goldman wasn't simply trying to make others lose money, it was trying to make itself money: "Concluding that it [Goldman Sachs] could no longer trust AIG to pay off its swap contract in full if the triple-A tranches [the least risky MBSs] started to default, Goldman began buying protection on AIG itself" (McLean and Nocera 325-326). While, originally, Goldman's goal was to recoup their losses on the CDSs (both standard and naked) they took with AIG, they had enough money protected through other derivatives that writing off the AIG losses would not be significant. Instead, they saw AIG's unwillingness to immediately make the contingent payment as a sign of weakness, and bet that the insurance giant would fall under financial hardship. They made this bet by buying "protection" on AIG in the form of naked credit default swaps – naked because Goldman didn't actually own any securities issued by AIG itself – and then exploiting

their power as an investment firm to guarantee that this bet would pay off. In essence, Goldman Sachs used the market to rig a game.

The naked credit default swap has been allowed to exist based on the belief that ingenuity deserves financial gain. And while the concept of legalizing gambling under the guise of insurance is certainly ingenious, and did create enormous financial gain, it's hard to say any of that gain was deserved. In this instance, ingenuity does not even offer a tangible product, but increases losses in the financial sector exponentially; creating far more harm than good, but that is not even a factor when the CFTC or any other governing body determines the validity of a new security. This failure of financial regulation stems from the Veblenian dichotomy inherent within institutions.

Economist Thorstein Veblen proffered that all institutions are made up of two parts: an instrumental part which exists for its proven effectiveness and constantly adapts to improved technology, and a ceremonial part which offers no proven effectiveness, but, rather, exists for the sake of tradition. The ceremonial aspects of an institution continue as a preservation of the status quo, and "the sense in which these behavior patterns are habitual is that they are used but not questioned" (Waller 760). They serve as proof that humans cling to the status quo, fighting change whether it hinders or helps. To this end, the belief that ingenuity deserves profit is a ceremonial aspect of the American financial institution; it serves no purpose and exists only because it is the way it has always been done. Ultimately, "in the process of social change, institutional function [ceremony] plays a negative part. It resists change" (Waller 763). Resist it might, but change is coming, and in a very big way.

Because ceremonial behaviors are habitual, they are much harder behaviors to break than their instrumental counterparts. Instrumental behaviors are rooted in constantly changing

technology and they embrace novelty, knowing it will produce an improved product. But ceremonial behaviors can only be changed through strong and determined oversight. In his paper on institutional adjustment, J. Fagg Foster explained the only way ceremonial behaviors can be overcome:

> [T]he new pattern of behavior must be specified in conceptual form before it can emerge into the new pattern of behavior. However unwillingly the persons involved accept the new pattern and however little discretion they may have in specifying the adjustment, they must recognize their actual relationships as specified in the new pattern. Otherwise, the pattern simply does not eventuate into action. No one can perform a new activity without deliberately directing his efforts in the novel activity. (933)

In essence, Foster is saying that breaking a long-standing habit requires not only that those changing the habit understand how they are to change it, but that they are actively forced to perform the new habit. In most cases, no one is going to force themselves to change a habit, but are going to be forced to change that habit by the action of some outside party. To "deliberately direct" the financial sector to stop selling any product that creates revenue, the sector must be directed by someone other than itself.

The Great American Experiment was not simply an experiment in democracy, but in capitalism, as well. And capitalism decrees that selfishness in the business world is ultimately best for all. But capitalism is an idea, not a natural law; its strong roots in the founding of the United States have turned it into an authority in and of itself. Foster argues that authority can, at times, deter positive change, as it is a form of justification separate from proven effectiveness. When defended in the present, "the ceremonial functions of institutions are, at bottom, validated

on some assumption of authority, whereas the instrumental functions are validated on the evidences of contribution to the efficiency and continuity of the social process" (Foster 930). But the Department of Labor was formed when aggressive businesses let their selfishness exploit their fellow citizens and lower the living standard of the entire country. And the formation of the Environmental Protection Agency came about because selfish businesses were degrading the environment and diminishing the health of American citizens. Throughout the history of the United States, federal regulation has been necessarily brought in to temper business selfishness. And now it must be brought into the financial sector.

In 2012, the European Union made the decision to ban naked credit default swaps on sovereign debt. This regulation came in response to both the global economic crisis of 2008 and the Greek debt crisis of 2009. In both cases, the use of naked credit default swaps was viewed as a way that uninterested third parties were able to reap huge rewards by betting against corporations that were putting their funds into maintaining the markets and preventing a crisis. In this way, the naked CDSs exacerbated the situations by multiplying the funds being withdrawn, funds that brought these markets crumbling down. Though it remains undeniable that naked CDSs do exploit a weakness, neither by American nor European law are they illegal. However, when deciding whether or not to preserve these derivatives, the E.U. looked not at standing law, but at whether the swaps did more harm to the economy than good. By this yardstick, the E.U. determined that naked CDSs were far too harmful to be allowed near sovereign debt, and is currently debating the future of the naked CDS altogether. It is a yardstick they urge the U.S. to use, as well (Murdoch 137-138).

Though it took years, the European Union was able to change its ceremonial behaviors upon realizing those behaviors were holding back the institution. It will take many more years

for European financial institutions to break their own ceremonial behaviors, and that is why the E.U. will be the "deliberate director" in effecting permanent change. The ceremonial aspect of American finance, the belief that innovation deserves profit, requires a fundamental reconfiguration if American finance is to exist at all. The American financial institution is a 19th century creation that is inharmonious with its 21st century setting. This institution is "a non-dynamic factor in cultural development. More specifically, changing technological circumstances force institutions to change; institutions do not generate changes within a culture" (Waller 761). An outside force is necessary to bring about change to American finance, and, as with most failures of capitalism, government regulation is that outside force. By perpetuating a system that is inherently flawed, the U.S. government is guaranteeing that the financial institution will eventually fall, and there is no telling how many other institutions it will take with it. In the immortal words of Herbert Spencer, "now more than ever, in the history of the world, are they doing all they can to further the survival of the unfittest."

Works Cited

Anson, Mark J.P., Frank J. Fabozzi and Moorad Choudhry. Credit Derivatives: Instuments, Applications, and Pricing. Hoboken, New Jersey: Wiley, 2004.

Carpenter, David A. and M. Maureen Murphy. Permissible Securities Activities of Commercial Banks Under the Glass-Steagall Act (GSA) and the Gramm-Leach-Bliley Act (GLBA). Report. Washington: Congressional Research Service, 2010.

Fligstein, Neil and Adam Goldstein. "The Anatomy of the Mortgage Securitization Crisis." Markets on Trial: The Economic Sociology of the U.S. Financial Crisis: Part A (Research in the Sociology of Organizations). Ed. Michael Lounsbury and Paul M. Hirsch. Vol. 30. Bingley, U.K.: Emerald Group Publishing Limited, 2010. 20-30.

Foster, J. Fagg. "Syllabus for Problems of Modern Society: The Theory of Institutional Adjustment." Journal of Economic Issues December 1981: 929-935.

Guillen, Mauro F. and Sandra L. Suarez. "The Global Crisis of 2007-2009: Markets, Politics, and Organizations." Markets on Trial: The Economic Sociology of the U.S. Financial Crisis (Research in the Sociology of Organizations). Ed. Michael Lounsbury and Paul M. Hirsch. Vol. 30. Bingley, U.K.: Emerald Group Publising Limited, 2010. 257-279.

Labaton, Stephen. "Congress Passes Wide-Ranging Bill Easing Bank Laws." The New York Times 5 November 1999.

McLean, Bethany and Joe Nocera. All the Devils Are Here: The Hidden Story of the Financial Crisis. New York: Portfolio/Penguin, 2010.

Murdoch, Charles W. "Credit Default Swaps: Dubious Instruments." Harvard Business Law Review 30 March 2013: 133-141.

Works Cited

Quiggin, John. Zombie Economics: How Dead Ideas Still Walk Among Us. Princeton: Princeton University Press, 2010.

Waller, William T. Jr. "The Evolution of the Veblenian Dichotomy: Veblen, Hamilton, Ayres, and Foster." Journal of Economic Issues September 1982: 757-769.