

# The Bankers Know Best: How Regulatory Policy Shaped the Rise and Fall of the Credit Default Swap Market

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## Introduction:

At the most basic level, the American financial system contains two major markets -- a debt market in which investors can lend to government entities and companies and expect a fixed return; and a riskier equity market in which investors can share in the ownership of a company and claim a portion of its future profits. At the peak of the most recent upswing of the business cycle, in 2007, the size of the US equity market reached over \$22 trillion, while the corporate debt market was worth \$6 trillion.<sup>1</sup> The recent financial crisis, however, demonstrated that the financial markets are much more complex than they appear. Beneath the corporate debt market in that same year lurked the \$7.5 trillion mortgage backed security market, about \$1 trillion of which rested on subprime mortgages.<sup>2</sup> All of those numbers seem daunting enough, but they pale in comparison to a murkier set of markets—those for financial derivatives. At its apex in 2007 the credit derivatives markets alone had roughly \$62 trillion in notional value, not including the larger currency and interest rate swap markets.<sup>3</sup>

The global financial crisis, particularly in its beginning stages, was largely triggered by a collapse in the subprime mortgage market. But how did a decline in a \$1 trillion market send such powerful ripples throughout the world economy and require bailout packages amounting to sums far greater than that market itself? How did it cause such investor panic that the Dow Jones Industrial Average lost nearly half its value in under a year and investors flocked so heavily to treasuries that they were actually willing to accept losses in exchange for the security of cash? The explanation lies largely in this derivatives market that composes what many refer to as the “shadow banking system.” While stocks and bonds are largely visible to the public, a complex and unwieldy market of derivatives sat largely outside the oversight of formal regulatory bodies. This market allowed investors to place directional bets that far exceeded the size of the underlying market and resulted in crippling payouts for financial institutions. Warren Buffet famously labeled derivatives “financial weapons of mass destruction.” This paper will examine the governmental and private regulatory systems that aided the proliferation of these complex “financial weapons” and the ideological underpinnings that blinded users and regulators alike to their destructive power, focusing on credit default swaps (CDS), the most common credit derivative. Motivated by a desire to foster market growth and emboldened by their faith in financial innovation and the power of markets to self-regulate, public officials largely left the finance industry to its own devices. With that freedom the industry put in place structures that allowed the market to flourish. That is until an economic shock, in the form of a decline in housing prices, crippled an industry built on a foundation hollowed by its neglect of systemic risk.

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<sup>1</sup> Janet Morrissey. “Credit Default Swaps: The Next Crisis?” Time Online. Mar. 17, 2008 [http://www.time.com/time/business/article/0,8599,1723152,00.html].

<sup>2</sup> Eric Dinallo, Testimony Before Committee on Agriculture, Nutrition, and Forestry. Oct. 14, 2008

<sup>3</sup> ISDA Market Survey, Notional amounts outstanding at year-end, all surveyed contracts, 1987-present.

## Market Overview

Credit default swaps did not exist prior to the mid 1990s. Any understanding of how the American regulatory framework facilitated their growth to over \$62 trillion in notional value in just over a decade must begin with a discussion of how these financial products work, and how financial firms used them. Market growth was largely bolstered by external market events as well as internal product innovations that brought CDS to a much larger audience and helped establish user confidence.

Credit default swaps most closely resemble insurance contracts. Buyers are able to pay a small fee for protection in the case of a default on a corporate bond or some other debt obligation. When a company, municipality, or country defaults on its bond payments, the credit default swap holder receives payment from the protection seller. Financial analysts classify credit default swaps with other swaps, such as interest rate and currency swaps, because they quite literally “swap” the credit risk from the buyer to the seller. However, there is one important way in which CDS differ from insurance contracts – insurance buyers must have an insurable interest in the asset they are insuring. In other words, they have to be susceptible to loss. Unlike insurance contracts, buyers of credit default swaps do not need to own the underlying or “reference” asset that determines when there is a payout. Anyone, or any firm, can hold a CDS on Ford, or Jefferson County, Alabama, or the nation of Greece, without actually owning the underlying bonds.

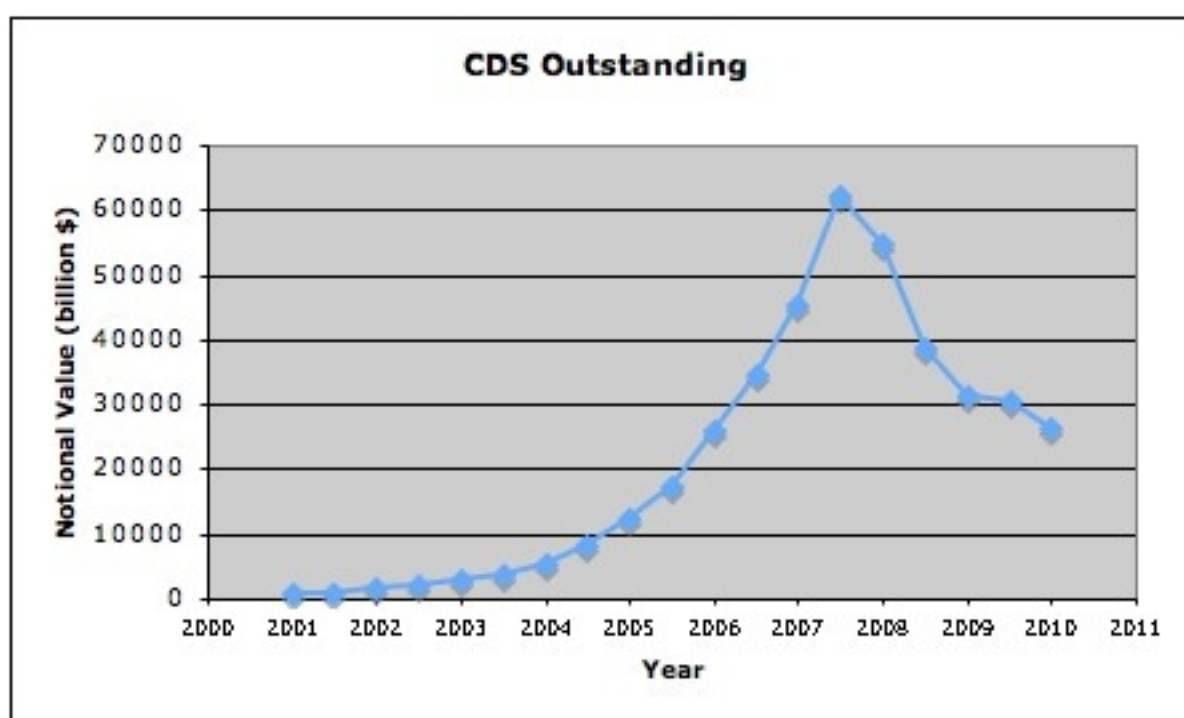
The beginnings of the credit derivative market date only to the mid 1990s. The idea for credit derivatives sprang out of the need for large financial institutions to unload credit exposure. If a bank makes a large loan to a corporation, then it is largely susceptible to the fortunes of that company. Loan syndication and securitization have long allowed banks to sell off chunks of loans to investors seeking a steady return as a means of reducing this risk. In 1994, however, several executives at JP Morgan thought up an additional means of hedging default risk. That year the bank extended a large loan to Exxon so that it could meet its legal obligations created by the Exxon Valdez disaster, but it did not want to hold on to the credit exposure. On a weekend trip to Boca Raton the JP Morgan bankers developed the first credit default swap.<sup>4</sup> JP Morgan would extend a \$5 billion loan to Exxon and then pay a small fee to the European Bank of Reconstruction and Development (EBRD). In the case that Exxon defaulted on their payments, JP Morgan would receive payment from EBRD.

The CDS market blossomed because CDS brought a number of benefits over the old securitization and resale model. First, they provided a less capital-intensive way of hedging credit exposure. Under the securitization model, when a bank wants to unload an exposure it essentially sells bonds that derive their cash streams from a pool of loans. However, the bank must keep those loans on its books and hold capital against them. Under the Basel Accord, an informal international agreement among banking regulators hammered out in 1988, financial institutions must hold 8% capital against the risk weight of their assets. Typical loans receive a 100% risk weight and so institutions must keep 8% of the size of the loan in reserve. Credit

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<sup>4</sup> John Lanchester. “Outsmarted: High Finance vs. Human Nature. The New Yorker Online. June 1, 2009. [[http://www.newyorker.com/arts/critics/books/2009/06/01/090601crbo\\_books\\_lanchester](http://www.newyorker.com/arts/critics/books/2009/06/01/090601crbo_books_lanchester)].

default swaps make those loans essentially “risk-free” under Basel rules and slide the risk weight down to 20%, enabling banks to hold only 1.6% reserve capital against them.<sup>5</sup> Essentially, the use of CDS freed up capital and allowed banks to put that capital to work rather than have it tied up in reserves. This accounting advantage explains why the CDS market took off. In theory, CDS allowed banks to reap risk-free returns on loans while at the same time freeing up capital for other investments. In 2000 the head of Asset-Backed Research at Goldman Sachs praised synthetic collateralized debt obligations (CDO), which are essentially bundles of credit default swaps, because they provided a “way to drastically shape up the balance sheet and operate with less capital.”<sup>6</sup> Furthermore, unlike securitized debt offerings, CDS were privately negotiated by financial firms and therefore skirted public scrutiny. Thus, JP Morgan could structure its deal with EBRD so that Exxon’s management did not realize that JP Morgan was unloading its exposure. The increased privacy allowed banks to maintain close client relationships while hedging their exposure to that client at the same time.



Source: ISDA market statistics

A succession of major economic events over the next decade, most of which involved high profile bankruptcies, propelled CDS towards their peak value of \$62 trillion in 2007. Although CDS started as tools primarily used by financial institutions to hedge their exposure on corporate loans, the near collapse of Long-Term Capital Management in 1998 brought credit derivatives to a much wider market. When LTCM required a private bailout by thirteen financial institutions in 1998, investors realized that banks were heavily exposed to hedge funds. Fearing widespread

<sup>5</sup> United States, Office of the Comptroller of the Currency. Capital Interpretations Synthetic Collateralized Loan Obligations. Nov 15, 1999.

<sup>6</sup> Anthony Thompson in, “European banks shed credit risk with new tool – Deutschebank, others use synthetic CLOs to free capital and lower costs.” By Joe Niedzielski. Wall Street Journal. Jul 31, 2000: P.1.

turmoil in the hedge fund industry and potential spillover into the stability of financial institutions, many large-scale institutional investors turned to CDS to protect themselves against potential defaults on bank debt.<sup>7</sup> “This (crisis) is what makes people aware of the need to protect” said Gavin Slater, then senior manager at Arthur Anderson, “once the interest has been sparked, they find new uses for them and trading will only escalate.”<sup>8</sup> If the collapse of LTCM alerted investors to CDS theoretical utility, it was the collapse of Enron in 2001 that gave them confidence in their practical application. Up to that point, CDS had remained untested instruments because there had not been a major corporate default since their introduction. Many were skeptical about how the market would perform during a significant default event. The performance of CDS contracts after Enron’s default gave investors confidence in the legal certainty of the contracts, as well as the robustness of the market.<sup>9</sup> John McEvoy, cofounder of the credit derivatives trading platform Creditex, praised CDS at the time. “Credit derivatives,” he observed in the winter of 2002, “earned their stripes in the aftermath of Enron filing for bankruptcy. The market did what it was supposed to do.”<sup>10</sup> The debacle also gave investors an additional reason to take credit derivatives seriously – as indicators of corporate strength or weakness.<sup>11</sup> Even as ratings agencies insured investors that Enron was stable, CDS spreads grew, alerting investors to the reality that savvy counterparties had begun to demand steeper premiums in exchange for protection against company default.

For roughly a year after Enron the CDS market grew rapidly and largely unhindered, until trouble hit the bond insurance market in 2002. The events of September 11<sup>th</sup> and the following economic downturn led to a wave of corporate defaults. The Municipal Bond Insurance Association (MBIA) and American International Group (AIG), who were also large writers of CDS contracts, experienced significant losses.<sup>12</sup> Trouble in the insurance sector led to some fears among investment analysts about spillovers into the energy and telecom sectors, marking the first time the popular press demonstrated concern over the potential damaging effects of CDS.<sup>13</sup> While the credit derivative market continued to grow rapidly, pieces about counterparty risk and the effects wide-scale default would have on systemic stability began to show up in newspapers such as the *Wall Street Journal*. Thus in December, the *Journal* ran a story about credit derivatives, raising the possibility that the instrument might actually foster market-wide instability. At the same time major public officials were praising the risk reducing benefits of credit derivatives, investors were worried that CDS allowed market players to magnify “potential

<sup>7</sup> Sabrina Ghani. “Fearful Investors Seek Protection for Derivatives – Long-Term Capital Crisis, Hedge-Fund turmoil raises anxiety level.” Wall Street Journal. Sep 28, 1998: P.1.

<sup>8</sup> Gavin Slater in, “Fearful investors seek protection for derivatives – Long-Term Capital crisis, hedge-fund turmoil raises anxiety level.” By Sabrina Ghani. Wall Street Journal. Sep. 28, 1998: P.1.

<sup>9</sup> Michael Mackenzie. “Credit derivatives survive a series of stress tests as demand for the hedging instruments grows.” Wall Street Journal. Jan 21, 2002: C13.

<sup>10</sup> *ibid*

<sup>11</sup> Henny Sender. “How to spot signs of Companies’ Distress.” Wall Street Journal. Dec 31, 2001: C1.

<sup>12</sup> Christopher Oster and Henny Sender. “Some bets may come back to haunt insurers.” Wall Street Journal. Oct 30, 2002: C.1.

<sup>13</sup> Henny Sender. “Backing Corporate Bonds can be Risky Business”. Wall Street Journal. Nov 5, 2002: C1.

credit problems far beyond the level they deserve...creating an ever-bigger sense of doom about an underlying company's prospects."<sup>14</sup> The fears focused on a potential feedback mechanism that could restrict a company's access to the capital markets. As CDS premiums go up, investors drive down bond and share prices because they see CDS spreads as an indicator of risk. Then, the lower prices cause investor panic and an increase in demand for, and the price of, CDS protection. The situation could escalate to the point where ratings agencies downgraded the debt, forcing institutional investors, legally restricted from carrying "junk" bonds, to sell their holdings. The downside to pricing efficiency, then, was that the market could react too fast.

After the widespread decline in corporate creditworthiness brought significant losses to the bond insurance divisions of major insurers, the credit derivatives market was relatively stable until 2005 when ratings agencies downgraded GM and Ford debt as a result of poor sales and declining market share.<sup>15</sup> By 2005 several hedge funds had developed the strategy of using credit derivatives as a means to place directional bets on companies rather than as a hedging instrument. These funds grasped that if they became bearish about a company's prospects, and many did so about American car manufacturers in the mid 2000s, they could bet against the companies by purchasing CDS against those companies' bonds. The notional value of CDS contracts on GM debt accordingly came to far exceed the value of the actual bonds, and so significantly amplified the effects of the downgrade on the market. 2005 marked the first time that investors experienced significant losses on CDS contracts as the value of those contracts ballooned in the aftermath of the GM downgrade.<sup>16,17</sup> Much like in 2002, this event produced a spate of news coverage about the risks associated with CDS. That May, the *Wall Street Journal* once again fretted about how credit derivatives might heighten risk. The increased risk, one article notes, was largely a result of the movement away from using CDS as hedging instruments towards using CDS as investment tools: "What started out to be a protection product for banks has turned out to be an opportunity to spin the roulette wheel."<sup>18</sup> Suddenly the market, which sprouted because of its hedging benefits and blossomed because of its investing opportunities, was crossing the muddied line into outright gambling. Even worse, however, was the increasing involvement of hedge funds, many of which adopted similar strategies and therefore could experience coordinated losses given a market reversal. Investors, including Janet Tavakoli, president of Tavakoli Structured Finance, expressed concerns about a potential "domino effect" because credit derivatives strengthened the links among financial players and left them susceptible to similar fates.<sup>19</sup>

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<sup>14</sup> Henry Sender. "Deals and Deal makers: A market backfires and investors pay—though Greenspan praised idea, credit derivative trading mutates; instead of stability –instability." *Wall Street Journal*. Dec 5, 2002: C1.

<sup>15</sup> Jennifer Bayot. "S&P cuts debt ratings for G.M. and Ford to junk status." *New York Times Online*. May 5, 2005. [[http://www.nytimes.com/2005/05/05/business/05cnd-auto.html?\\_r=1](http://www.nytimes.com/2005/05/05/business/05cnd-auto.html?_r=1)]

<sup>16</sup> Mark Whitehouse and Gregory Zuckerman. "The sky darkens for bondholders: backfiring bets on derivatives, corporate executive' allegiances are among worries raising risk." *Wall Street Journal*. May 12, 2005: C1.

<sup>17</sup> "Hedge funds stumble even when walking." *Wall Street Journal*. May 18, 2005: C1.

<sup>18</sup> Andrew Blackman. "In translation: derivatives spread – and heighten – risk." *Wall Street Journal*. May 29, 2005: P3.

<sup>19</sup> *ibid*

Beyond issues concerning market risk, the automakers' debt crisis also brought to light a set of infrastructural issues that banks were having with CDS trading. At this point, the CDS market was barely a decade old and had grown much more quickly than participants expected. Unlike more developed markets, traders of CDS confirmed deals by fax rather than through an electronic processing system. Most dealers had trade confirmation backlogs spanning multiple weeks. "A number of firms in the fast-developing credit derivatives market" noted an official within the Financial Services Authority (FSA) in England, "are failing to resource their back-office functions adequately to allow them to keep pace with the growth of the front-office business."<sup>20</sup> It seems the only constraint on market growth was the capacity of the banks themselves. The liquid nature of CDS contracts also brought forth a legal issue – assignment. When a party bought a CDS contract, he presumably evaluated the counterparty risk, assessing whether the seller would be likely to pay if the contracted credit event actually occurred. Then, when dealers traded the contracts, the counterparty changed with each transaction, often without the consent of the original buyer. The frequent pace of transactions made it difficult for the original buyer to know who held the opposite end of the contract and to adjust his counterparty exposure accordingly.

Largely bolstered by improvements in trading infrastructure and transaction procedures that sprang out of the automaker debt crisis, the CDS market continued to grow at an exponential pace, reaching its peak notional value of \$62 trillion in 2007. The composition of market participants also changed drastically over the course of the development of the CDS market, largely reflecting the changing uses of credit derivatives. In 1998, banks made up 66% of the demand for credit derivatives. That proportion had dropped to 44% by 2006. Hedge funds and asset managers grew the most over that span. Although hedge funds only accounted for 8% of the market in 2002, they grew to 32% by 2006. Similarly, insurers and asset managers went from 14% to 24% of the market over that same time span.<sup>21</sup> It is important to note that the change in market composition was not so much a decline in activity by banks but rather an increase in activity by investors, namely hedge funds and asset managers. Recall that while bank activity was declining from 66% to 44%, the market was also growing from under \$100 billion in notional value to over \$34 trillion in notional value. On an absolute basis, every major type of financial firm involved in the CDS market massively increased their reliance on credit derivative contracts.

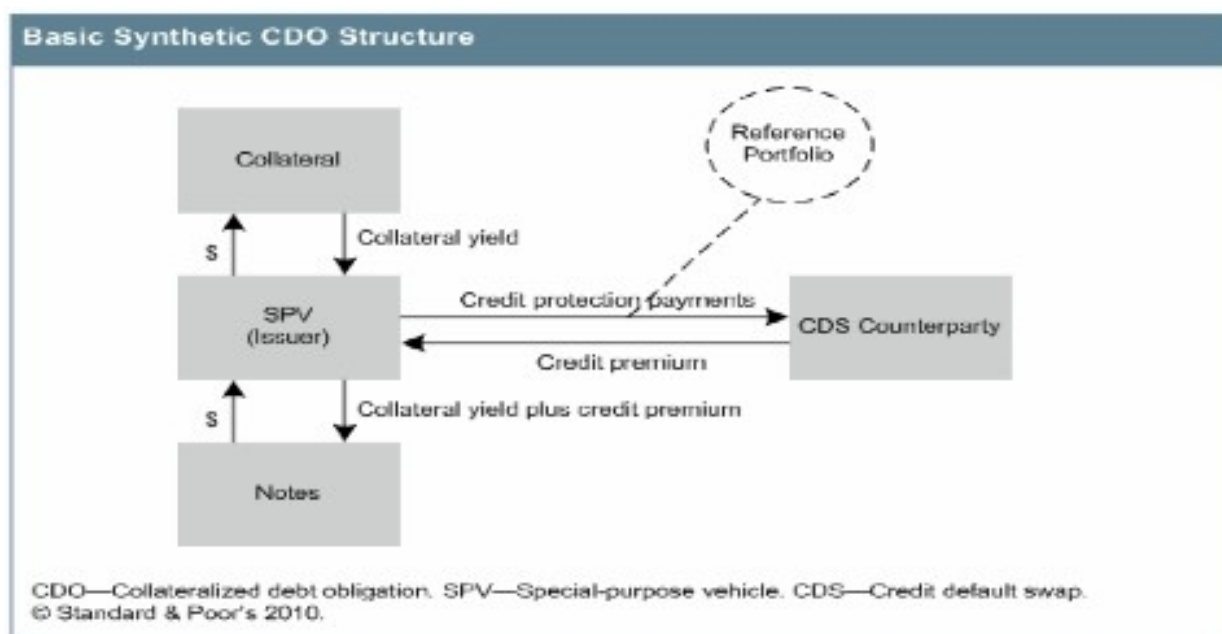
The increased activity by hedge funds and asset managers also helps us understand an important transition in the CDS market – the move from using CDS as purely hedging instruments to using CDS as largely speculative investments. Recall that JP Morgan used the first CDS to unload its loan exposure to Exxon Valdez. The relatively high market share for banks in 1998 suggests that the purchasers of most early CDS did so for a similar reason – to hedge actual loans. After the LTCM crisis investors also realized that they might deploy CDS to hedge against bank exposure; after Enron they realized they might use them to hedge against corporate debt. As early as 2004, however, the notional value of the credit derivatives market far exceeded the 6 trillion corporate debt markets, suggesting that investors were using CDS to place directional bets on the fortunes of a company rather than insuring bond holdings.

<sup>20</sup> Gay Huey Evans in "Credit Derivatives Stir Concerns for British Banks." By Tom Marshall. Wall Street Journal. Feb 23, 2005: C5.

<sup>21</sup> Michael Mackenzie. "Credit derivatives gain acceptance." Wall Street Journal. Nov 6, 2002.



The emergence of synthetic collateralized loan obligations (CLO) offered another measure of a shift in the CDS market from hedging purposes to speculative ones. In a standard CLO, a financial institution gathers a pool of loans and effectively sells them off to investors in different tranches, where each tranche has a different level of risk. A synthetic CLO uses CDS to create the same exposure. While synthetic assets are appealing from an economic standpoint because they require less capital, they also signal a movement away from hedging purposes. The first synthetic CLO was issued in 1997 and very similar instruments called synthetic collateralized debt obligations (CDO), which referenced pools of debt instrument rather than simply loans, also grew in popularity. The British Banking Association began tracking credit derivative product mix in 2000. Their original data segregated credit derivatives into single-name CDS, basket products, credit-linked notes, and credit spread options. Synthetic CDOs did not warrant a separate category until 2004, by which time they already made up 16% of the market. The absence of earlier data on synthetic assets informs us of the explosive growth in those products that largely took market observers by surprise.



In a synthetic CDO, investors buy notes issued by a Special Purpose Vehicle (SPV). These notes typically are ranked in order of seniority – with the least senior notes taking the first losses but also receiving the highest yield. The SPV then invests the cash received from investors by selling CDS on an agreed upon reference portfolio. The premiums received from the CDS go to the original investors. In a synthetic CDO, the reference portfolio can consist of any type of debt obligation. In a synthetic CLO, the reference pool consists of bank loans.

As the CDS market developed, so too did the complexity of available products. Originally privately negotiated contracts insuring a specific debt of a single reference corporation, CDS gradually expanded to cover corporate bonds, sovereign bonds, and asset-backed bonds, including mortgage-backed securities. CDO and CLO pooled CDS and their reference entities and then divided payouts into different seniority levels. A final development in the growth of the CDS market concerned indices. CDS indices, for which there are two major families, the Dow Jones CDX and the International Index Company iTraxx, derive their value from a bundle of

single name CDS. Indices introduced additional liquidity to the CDS market because unlike most OTC derivative contracts, the indices are standardized and traded on open exchanges. These indices made it even easier to hedge credit exposure or make a directional bet on credit.<sup>22</sup> A look at the breakdown of market share for different credit derivative products reveals how important index trades were. Not worth counting in 2002, index trades made up over 30% of the market by 2006 and stole significant market share from single-name credit default swaps, which dropped from 51% to 38% of the market between 2004 and 2006.<sup>23</sup>

Type	2000	2002	2004	2006
Basket products	6.0%	6.0%	4.0%	1.8%
Credit linked notes	10.0%	8.0%	6.0%	3.1%
Credit spread options	5.0%	5.0%	2.0%	1.3%
Equity linked credit products	n/a	n/a	1.0%	0.4%
Full index trades	n/a	n/a	9.0%	30.1%
Single-name credit default swaps	38.0%	45.0%	51.0%	32.9%
Swaptions	n/a	n/a	1.0%	0.8%
Synthetic CDOs – full capital	n/a	n/a	6.0%	3.7%
Synthetic CDOs – partial capital	n/a	n/a	10.0%	12.6%
Tranched index trades	n/a	n/a	2.0%	7.6%
Others	41.0%	36.0%	8.0%	5.7%

Source: BBA Credit Derivatives Report 2006

By 2006, then, the CDS market was humming along at an unprecedented pace, largely fueled by the increasing interest in the utility of CDS as investment products. This remarkable growth, however, eventually ran into the buzz saw of the global financial crisis of 2007-08, which was initially triggered by the collapse of the American investment bank Bear Stearns in the spring of 2008. Bear's problems stemmed mostly from the subprime mortgage market. Increasing default rates hurt asset prices and forced Bear to recognize large losses in two of its hedge funds. Concerned about the stability of the bank, overnight lenders were reluctant to extend Bear the short-term financing that it was so dependent on. Ultimately Bear ran out of capital to meet margin calls and the demands of investors pulling out their money. The fall of Lehman Brothers in September 2008 was similarly related to problems in the subprime mortgage market. Heavy exposure to mortgage backed securities meant that Lehman suffered significant losses when those assets began to decline in value. Investors exacerbated the problem by shorting Lehman stock and pulling money out of brokerage accounts.

<sup>22</sup> Mike Jakola. "Credit Default Swap Index Options: Evaluating the viability of a new product for the CBOE." Kellogg School of Management. June 2, 2006. P.1. [<http://www.kellogg.northwestern.edu/research/fimrc/papers/jakola.pdf>]

<sup>23</sup> Ross Barrett and John Ewan. "BBA Credit Derivatives Report 2006." British Bankers Association. 2006: P.6.

Widespread reliance on credit derivatives greatly amplified the systemic implications of such economic problems at key investment banks. Although significant, the mortgage backed security market was too small in itself to cause a truly global financial crisis. The problem was that there was an even larger market of synthetic CDO, composed of CDS, that referenced mortgage backed securities. These derivatives replicated the market “One hundred times over” said investor Steve Eisman, “That’s why the losses in the financial system are so much greater than just the subprime loans.”<sup>24</sup> A dramatic shift in value by a RMBS did not just mean losses for the holders of the actual asset but for parties involved in any CDS that referenced that asset as well. The mechanism through which credit derivatives wrought havoc on financial institutions was somewhat indirect. Contractually speaking, CDS do not require a payout until a credit event, such as a default, occurs. However, as is common practice for any leveraged product, buyers of CDS contracts required counterparties to post collateral. So if Goldman Sachs sold a CDS on Wal-Mart to Scion Capital, it would typically post a pre-arranged percent of the value of that contract. These amounts were adjusted continually as the value of the contract fluctuated with the market. Collateral protected investors against counterparty risk and infused a degree of security into the market. When the economy was booming, posting collateral did not raise any problems because prices remained relatively stable and investors, confident in the economy and their counterparties, did not insist on margin calls. However, once the economy started to falter and concerns over corporate solvency at reference entities and counterparties grew, the value of CDS contracts rose and investors demanded more collateral.

Many institutions, such as AIG, did not have adequate capital on hand and struggled to post collateral. This is when the systemic ramifications of credit derivatives trades became clear. Traditionally an insurance company, AIG had a Financial Products division (AIG FP) that was one of the biggest and earliest writers of CDS contracts. As the financial crisis began to take hold, the value of the CDS contracts to purchasers rose sharply, leading AIG’s counterparties to make collateral calls against the insurance company. When AIG FP originally started selling CDS contracts they believed that the premiums were essentially riskless, since the economy was going through a time of unprecedented stability and low corporate default rates. “The models suggested that the risk was so remote that the fees were almost free money,” noted Tom Savage, president of AIG FP, “just put it on your books and enjoy.”<sup>25</sup> The insurance giant’s managers never anticipated a widespread recession like the one that began in 2008. Unable to meet the demands of CDS holders, AIG required a number of bailouts that could potentially amount to roughly \$180 billion.<sup>26</sup> As many observers have noted, a large portion of that money went directly to other major financial institutions such as DeutscheBank and Goldman Sachs, whom were both large holders of AIG issued CDS contracts. The prospect of a failure by AIG, and the repercussions it would unleash throughout the financial system, gave people first hand evidence of the potentially devastating impact credit derivatives could have on systemic stability.

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<sup>24</sup> Steve Eisman in, The Big Short, by Michael Lewis. (New York: W.W. Norton & Company, 2010) p. 143.

<sup>25</sup> Tom Savage in, Bailout Nation, by Barry Ritholtz. (New Jersey: Wiley, 2009) p. 205.

<sup>26</sup> Reuters. “Timeline: AIG Developments Since U.S. Bailout.” Insurance Journal Online. March 16, 2009. [<http://www.insurancejournal.com/news/national/2009/03/16/98729.htm>].

## Early Recognition

Analysis of the recent financial crisis often highlights the absurdity of the government policy that fueled the housing boom, the complete misappraisal of risk by financiers, and the lack of a suitable regulatory policy by public officials. In her book *Econned*, Yves Smith attacks financial economics for miscalculating correlation risk, liquidity risk, and the probability of extreme events.<sup>27</sup> In *The Big Short*, Michael Lewis cynically attributes the rise of synthetic assets to the fact that “there weren’t enough Americans with shitty credit taking out loans to satisfy investors’ appetitive for the end product” so they “created them out of whole cloth.”<sup>28</sup> Joseph Stiglitz uses his book *Freefall* to criticize investors for neglecting counterparty risk.<sup>29</sup> Finally, in his book *Bailout Nation*, Barry Ritholtz takes the opportunity to attack the deregulatory movement that opened the door for greedy bankers and the chase for yield that led many to believe products could be both safe and deliver exceptional returns.<sup>30</sup> Amid all the extreme characterizations of incompetence and ignorance, it is easy to overlook the considerable evidence that governmental agencies and market participants grasped many of the risks at an early stage. This section takes a brief look at when credit derivatives first entered the radar of major news publications and governmental regulatory agencies. Bankers, regulators, and even academic scholars had some difficulty coming to terms with the full extent of the challenges credit derivatives introduced. But several influential officials and observers recognized the basic contours of those challenges well before the derivatives market grew to its crippling size. This early acknowledgement of risk and the need for supporting market structures and guidelines suggests that the regulatory problem surrounding CDS resulted not from outright ignorance but rather from a conscious regulatory policy of limited action, abetted by misplaced optimism about the possible scope of risks.

The first official documents relating to credit derivatives came in 1996 from the Office of the Comptroller of the Currency (OCC) in the United States and the Bank of England in Europe. The OCC, the federal agency responsible for supervising national banks, produced an “End-User Guide,” which outlined a number of risks associated with the products, including “credit risk,” “transaction risk,” “liquidity risk,” “compliance risk,” “price risk,” “strategic risk,” and “reputational risk.”<sup>31</sup> While the OCC seemed to have an early grasp on the risks associated with credit derivatives, it is interesting that the guidelines were aimed primarily at end-users (buyers) rather than at dealers (sellers). The Bank of England similarly made an early read on credit derivatives. In a document entitled “Developing a Supervisory Approach to Credit Derivatives,”<sup>32</sup> the Bank of England set out interim capital requirements for banks using credit derivatives.<sup>33</sup>

Within a few years news about credit derivatives as well as the risks they brought with them

<sup>27</sup> Yves Smith, *ECONned*, (New York: Palgrave Macmillan, 2010) p. 77.

<sup>28</sup> Michael Lewis, *The Big Short*, (New York: W.W. Norton & Company, 2010) p. 143.

<sup>29</sup> Joseph Stiglitz, *Freefall*. (New York: W.W. Norton & Co., 2010).

<sup>30</sup> Barry Ritholtz, *Bailout Nation*, (New Jersey: Wiley, 2009) Ch.9.

<sup>31</sup> United States, Office of the Comptroller of the Currency. *End-User Guide*. 1996.

<sup>32</sup> England, Financial Services Authority. “Credit Derivatives Introduction.”

[<http://www.fsa.gov.uk/pubs/policy/P09.pdf>]. P.1.

<sup>33</sup> *ibid*

made their way to the popular press. Articles as early as 1999 in the *Wall Street Journal* expressed concern over the inherent leverage associated with credit derivatives. “The credit derivative,” one 1999 article warns, “is the most dangerous instrument yet, and neither the risk controllers at the big banks nor the bank examiners seem to have any good ideas about how to handle them.”<sup>34</sup> The article primarily addressed the structure of CDS payoffs and called for a more sophisticated risk-management approach. A CDS is structured so that a very small fee can result in a large, though improbable, return. In a benign economic climate many institutions were willing to write numerous CDS contracts because they believed the contracted credit events would never occur. As a result, financial firms did not maintain much in the way of capital to make sure that they would be able to make good on their commitments. However, if the economy ever did turn, these firms would be on the hook for what would end up being crippling payoffs.

A number of academics similarly glimpsed the kind of dangers that credit derivatives might introduce. “The primary risk of derivatives” claims one 1995 journal article “is the same as the risk of the underlying asset – namely the market risk that the price of the underlying asset may go up or down.”<sup>35</sup> At its very beginning, credit derivatives were simply paired with other derivatives in most discussions of risk. Spectators did not seem to realize that they introduced unique problems because of their tendency to move in price all at once. Despite an initial misappraisal of risk, within a few years, which was well before the CDS market outstripped the underlying corporate debt market, a number of other scholars understood the amplifying effects derivatives could have on market movements. By 2000 legal scholars, such as Andre Scheerer, who had worked in structured finance at Fried, Frank, Harris, Shriver & Jacobson, had accepted many of the risks outlined by the OCC and included “interconnection,” “operational risk,” and an increased awareness of “systemic risk.”<sup>36</sup> As hedging instruments directly tied to real assets, the risks of derivatives were relatively smaller. Once scholars recognized the potential for a speculative market where movement in the price of an asset can cause losses for not just the holder of the asset but for hundreds of parties using derivatives to gamble on that asset, their appraisals of risk drastically increased.

In addition to market-related risks, further legal academics recognized that credit derivatives posed regulatory challenges. Some of those challenges were “typical of innovative financial products” including, “a lack of effective standard legal documentation,” “legal uncertainty,” “inconsistencies between the credit derivative agreement and the underlying asset agreement,” and “lack of publicly available market and product relevant information.”<sup>37</sup> Others presented jurisdictional issues, such as whether a swap contract falls under the umbrella category of a security or a futures contract.<sup>38</sup> From an early stage, then, governmental organizations, the

<sup>34</sup> Martin Mayer. “The Dangers of Derivatives.” *Wall Street Journal*. May 20, 1999: A20.

<sup>35</sup> Bernard Karol. “Regulation of Financial Derivatives: An overview of derivatives as risk management tools.” *Stanford Journal of Law*, Spring 1995: p. 479.

<sup>36</sup> Andre Scheerer. “Credit Derivatives: An overview of regulatory initiatives in the US and Europe.” *Fordham Journal of Corporate & Financial Law*. 2000: p. 296.

<sup>37</sup> *Ibid* p. 294.

<sup>38</sup> Willa Gibson. “Are swap agreements securities or futures? The Inadequacies of Applying the traditional Regulatory Approach to OTC derivatives Transactions.” *The Journal of Corporation Law*. Winter, 1999.

popular press, and academia all understood that new markets like those for credit derivatives do not arise seamlessly. With change and innovation there comes a period of uncertainty and a response, public and private, to that uncertainty.

### **Initial Public Regulatory Battles**

Over the last one hundred and fifty years, the federal government has created a complex network of regulatory bodies that regulate the finance industry by monitoring issues ranging from capital requirements to fraud. Several of these institutions considered the enactment of new regulations or the modification of existing regulations to respond to credit default swaps. Here it is important to recall that as the CDS market developed, hedge funds accounted for an ever-increasing proportion of CDS activity, and that hedge funds themselves already faced very loose regulation. As we will see, the CDS market remained a primarily unregulated market used predominantly by lightly regulated entities, despite the efforts of some regulators.

After the original OCC guidelines in 1996, the derivatives market received little government attention until a 1998-2000 battle among the Commodity Futures Trading Commission and the Department of Treasury, the SEC, the Fed, and the Finance industry over proposals to regulate over-the-counter derivatives. The Commodity Exchange Act (CEA) regulated standardized derivatives contracts and a 1993 amendment set out the terms by which more complex or “tailored” products could be exempt from those regulations. These more complex contracts were typically sold over-the-counter – meaning that they were privately negotiated between parties rather than sold on open exchanges. Since traders arranged the contracts outside the bounds of government oversight, nobody, not even the major dealers themselves, was aware of their true outstanding value, whom the counterparties were, or what the underlying reference assets even were. Without information about how big an impact an economic event could have on the derivatives market, the system was left extremely vulnerable to an external shock. Lawmakers at the time passed the exemption provision because they believed that these complex transactions should not be governed by standard rules. In their opinion, any attempt to impose rules on complex OTC derivatives would introduce unnecessary legal uncertainty and potentially cripple the market. “The exemptions taken as a whole” then SEC Chairman Richard Breeden praised, “move in the direction of promoting financial innovation and market development in U.S. markets.”<sup>39</sup> The exemption provision also potentially steered the market towards greater complexity by introducing a perverse incentive – more complex contracts would not be regulated.

At least one federal regulator, however, recognized the potential dangers in financial derivatives. In 1997 Brooksley Born took over as commissioner of the CFTC and was startled by the rapid growth in the over-the-counter derivatives market. At the beginning of her term, the OTC derivatives market was worth \$13 trillion, expanding to \$80 trillion by the year 2000.<sup>40</sup> As officials at the CFTC saw this rapid growth, they became concerned about the potential risks the market imposed. They were also driven to introduce regulation by another development – huge

<sup>39</sup> Lynn Hume and Vicky Stamas. “Futures Exchange Oppose Proposals to Exempt Swaps from CFTC Rules.” Bond Buyer. Jan 8 1993

<sup>40</sup> Michael Greenberger, Frontline Interview. Oct. 20, 2009.

[<http://www.pbs.org/wgbh/pages/frontline/warning/interviews/greenberger.html>].

loses on the part of naïve investors. In 1994 Orange County went bankrupt after some of their OTC derivatives bets went bad and a few years later a number of school boards suffered as well.<sup>41</sup> These events led the CFTC to raise concerns about the high potential for misrepresentation, exploitation of informational asymmetries, and outright fraud in the derivatives market.

In 1998 the CFTC issued a “concept release” concerning the issue of OTC derivatives. The release noted the rapid growth in the market as well as the potentially damaging effects of OTC derivatives, particularly for unsophisticated investors. It suggested that laws created in 1993 might require updating, given new developments in the market and the finance industry as a whole.<sup>42</sup> The CFTC released the document in the “hopes that the public comments filed in response... will constitute an important source of relevant data and analysis that will assist it in determining whether its current regulatory approach continues to be appropriate or requires modification.”<sup>43</sup> At the same time, the CFTC was cognizant that efforts to regulate could stifle growth and wanted to put in place a regulatory framework without “impairing the ability of the OTC derivatives market to continue to grow and the ability of U.S. entities to remain competitive in the global financial marketplace.”<sup>44</sup> Hardly an assault on the autonomy of the finance industry, the concept release was a rather cautious attempt to gather information about an evolving market. According to Michael Greenberger, then director of the Division of Trading and Markets at the Commodity Futures Trading Commission, the concept release was met with widespread disapproval from the financial industry and from other national organizations. Immediately after its May 1998 release, Treasury Secretary Robert Rubin, Fed Chairman Alan Greenspan, and SEC Chairman Arthur Levitt issued a statement denouncing the efforts of the CFTC to regulate OTC derivatives: “[we] seriously question the scope of the CFTC’s jurisdiction in this area, and we are very concerned about reports that the CFTC’s action may increase the legal uncertainty concerning certain types of OTC derivatives.”<sup>45</sup> The primary argument against CFTC action emanated from the impulse to support, rather than stifle, this new market.

The controversy between the CFTC and other prominent regulators suggests how the complexity of the financial system hindered regulatory efforts. Financial regulation in the 1990s and 2000s was split among a number of agencies including the Federal Reserve, the CFTC, the OCC, the FDIC, and the SEC. The CFTC’s original jurisdiction covered commodities and futures. The SEC had jurisdiction over securities and typically deals with issues concerning fraud and dissemination of financial information. The Fed was supposed to maintain the stability of the monetary and financial system and serve as a lender of last resort while the OCC’s mission is to “charter, regulate, and supervise all national banks.”<sup>46</sup> Finally, the FDIC oversaw bank deposits. The missions of these organizations were slightly ambiguous and contained significant overlap. As the pace of financial innovation picked up in the 1980’s and into the 1990’s, this ambiguity

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<sup>41</sup> *ibid*

<sup>42</sup> United States, Commodity Futures Trading Commission. Over-the-Counter Derivatives Concept Release. May 7, 1998. [<http://www.cftc.gov/opa/press98/opamntn.htm>]

<sup>43</sup> *ibid*

<sup>44</sup> *ibid*

<sup>45</sup> Robert Rubin, Alan Greenspan, and Arthur Levitt in “Prepared statement of Joseph Bauman.” House Subcommittee Risk Management and Specialty Crops. By Joseph Bauman. June 10, 1998.

<sup>46</sup> Office of the Comptroller of the Currency. April 2011. [<http://occ.gov/about/index-about.html>].

made it increasingly difficult to identify the appropriate regulator to deal with the newly emerging array of financial instruments. Many argued that the CFTC did not have jurisdiction over OTC derivatives because they were not commodities or futures contracts. The CFTC believed that it could regulate derivatives as futures contracts because, like futures contracts, derivatives typically called for an exchange of assets at a future date. The SEC was restricted by what it deems a “security.” Interestingly, there did not appear to be a turf war over who could regulate this new market. Instead, a pervading ideological belief in the power of free markets meant that many key officials pushed for deregulation rather than new regulation for new financial products. In fact, according to Greenberg, before the CFTC had even issued its concept release, Larry Summers called Brooksley Born and told her she was “going to cause the worst financial crisis since the end of World War II.”<sup>47</sup> The legal and political default was to maintain the status quo.

Ultimately Brooksley Born and her staff were unable to overcome the stiff ideological tide promoting deregulation and rapid market growth. Congress passed legislation preventing further action on the concept release for a year and in 2000 the Commodity Futures Modernization Act effectively ended the battle over OTC derivatives regulation. That bill prevented federal regulation of OTC derivatives on two fronts: first, they could not be regulated as futures by the CFTC; second, the SEC could not regulate them as securities. The CFTC battle dealt with the more general category of OTC derivatives and it is not clear the extent to which they were concerned with CDS. However, their failure was significant in terms of CDS regulation as well, since they invariably involved sophisticated contracts negotiated privately between two parties and sold over-the-counter. Although CDS were not the primary target of legislators in 2000, the CFMA effectively bared any future action by the CFTC and the SEC relating to credit derivatives too. The prevailing regulatory policy at the time for innovations coming from the finance industry, such as more complex derivative products that were sold over the counter, was one of conscious inaction. The hands-off approach would likely have applied to credit derivatives as well if they had been explicitly enumerated in the concept release because they, just like other OTC derivatives contracts, stood to benefit from the legal certainty that many officials believed regulatory exemptions infused in the market. At the time of the CFMA, officials did not see CDS as posing a unique set of risks but rather included them in the bucket category of “OTC derivatives.”

The next key moment in the regulatory treatment of credit derivatives occurred not at the federal level, but rather in the New York State Insurance Department (NYSID). To understand the regulatory debate that occurred within the NYSID, one must keep in mind the two primary uses of CDS. Credit default swaps were originally devised as hedging instruments that resemble insurance contracts. An owner of corporate debt in Best Buy, for example, might pay a regular fee in order to receive a predetermined payout if Best Buy defaulted on its bonds. In this case the CDS buyer had an insurable interest in the corporate bond for which the CDS offered protection. The second use of CDS, the one that allowed the market to become many multiples larger in size than anyone would have predicted, was as a speculative instrument. Recall that CDS are a less capital-intensive way of gaining the same exposure as a bond. As the CDS market developed, more and more investors sought CDS protection without holding the

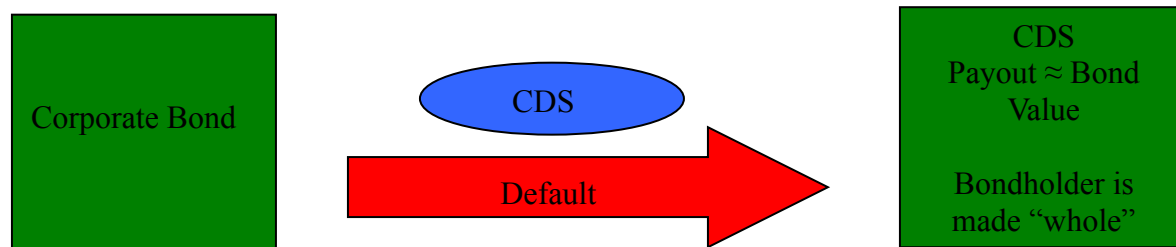
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<sup>47</sup> Michael Greenberger, Frontline Interview. Oct. 20, 2009.  
[<http://www.pbs.org/wgbh/pages/frontline/warning/interviews/greenberger.html>].



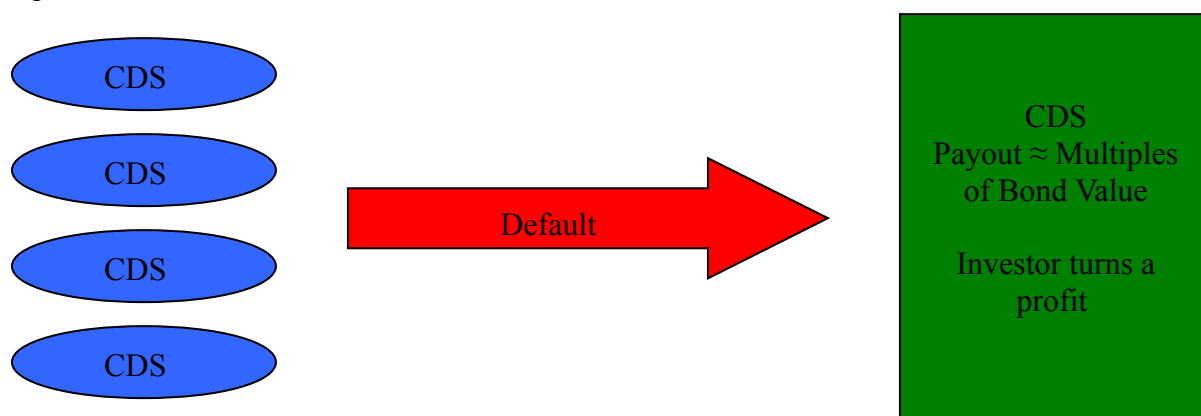
underlying asset, in order to bet against a company's solvency. Similarly, some investors sold CDS protection as a way to receive a fixed payment without having to front principal. These "speculative" CDS created risk rather than reduced it.

#### "Hedging" CDS



In a "hedging" CDS, an investor purchases CDS protection for his/her bond holdings. In the case of default, the CDS counterparty pays the value of the reference bond. The investor is "insured" against default.

#### "Speculative" CDS



In a "speculative" or "naked" CDS, an investor places a directional bet against the solvency of a company by buying any value of credit default swaps against that company's debt. If the company defaults, the investor can receive payment from the CDS counterparty many orders of magnitude greater than the underlying reference bond.

The distinction between "hedging" CDS and "speculative" CDS is an important one for the discussions that took place within the NYSID, since that agency is concerned primarily with protecting insurance policy holders. Their goal is to ensure that insurance holders receive a payout in the case of the contracted event (be it a death, fire, or car accident). The most common method of protecting policyholders involves the requirement that policy sellers hold capital reserves against those policies. According to Eric Dinallo, the NYSID Superintendent from 2007 to 2009, "In 2000, under a prior administration, the New York Insurance Department was asked to determine if certain credit default swaps were insurance and said no."<sup>48</sup> When the NYSID

<sup>48</sup> Eric Dinallo, Testimony Before Committee on Agriculture, Nutrition, and Forestry. Oct. 14, 2008

tackled the issue of CDS they examined the “speculative” version and concluded, rightfully so, that they were not insurance contracts. The department, however, did not inquire further into the other uses of CDS. It is not clear if that act of neglect was part of a conscious plan to avoid regulation or rather a lack of concern for the potential impact of “hedging” CDS. As Dinallo later reflected before Congress, “in sum, in 2000 as a society we chose not to regulate credit default swaps, whether as insurance, as a security or gaming.”<sup>49</sup>

So as early as 2000, well before the market reached its crippling size, key government officials had virtually eliminated CDS from every potential regulatory avenue. The CFMA declared that regulators could not treat OTC derivatives, of which CDS are a special subset, as futures or as securities. Also in 2000, the NYSID neglected to look at “hedging” CDS and instead applied their ruling on “speculative” CDS to all CDS contracts. The last potential regulatory category for these “speculative” CDS would be under anti-gaming laws. Dinallo noted that laws preventing bucket shops (the term for late-nineteenth and early twentieth century commodities and stock brokerages that lacked membership in leading exchanges, and often accepted speculative investments without actually executing purchases on those exchanges) would have at least presented an interesting legal case against these “speculative” CDS. However, the CFMA included a preemption provision for all state anti-bucket laws to eliminate the “legal uncertainty as to whether certain kinds of derivatives, including credit default swaps, violated state bucket shop and gambling laws.”<sup>50</sup> Thus, CDS were not regulated as insurance by the NYSID, were not regulated as futures by the CFTC, were not regulated as securities by the SEC, and were not regulated as gaming by state and local laws already in place against directional bets on reference assets. The regulatory failure is a good example of how federal agencies can be hampered by tunnel vision. The NYSID likely had a legitimate case for regulating “hedging” CDS. However, even if the NYSID had chosen to take action, the majority of the CDS market, the “speculative” portion, would still have existed outside their jurisdiction.

Any discussions about the formal regulation of CDS or their dealers were effectively closed by 2000 and did not reoccur in any significant form until 2005, when, as mentioned in section one, the CDS market encountered several shocks. Recall that investors experienced significant losses for the first time in 2005 as a result of downgrades on GM and Ford debt. Prices for CDS moved erratically during this period, in ways that analysts could not completely explain by credit events at the reference entities. In addition to the recognition of risks prevalent in the popular press at the time, the relative turmoil in the market alerted federal regulators to another pressing issue – trading infrastructure. Since the CDS market grew at a pace far faster than anyone could have imagined, dealers did not have the proper trading infrastructure in place. They often completed trades over the phone with handwritten notations rather than electronically. Many dealers also built up a backlog of trades spanning over thirty days. Demand was outpacing supply.

Eager to increase trading capacity and facilitate market activity, the banks and the NY Fed joined in a coordinated effort to update trading infrastructure at the major derivatives dealers. On September 15, 2005 the NY Fed hosted a meeting with 14 major financial institutions and 15 supporting groups to discuss “a range of issues regarding the processing of OTC derivatives, particularly credit derivatives, and the risk management and control issues around these

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<sup>49</sup> *ibid*

<sup>50</sup> *ibid*

instruments.”<sup>51</sup> While the stated purpose of the meetings was to examine infrastructural as well as risk-related issues, ultimately, as the New York Fed noted in its press release, “discussions focused on market practices with regard to assignments of trades and operation issues associated with confirmation backlogs. Industry participants outlined a number of concrete steps to achieve these goals.”<sup>52</sup> The NY Fed statement reinforces the basic dynamic underlying most consideration of credit derivatives regulation before 2007. First, despite a stated desire to look at risk management, the NY Fed involvement in the credit derivatives market would focus primarily on facilitating market activity. Again, any public efforts to focus on the risk aspect of credit derivatives were dead by 2000. Second, the industry itself would play a large role in the process. In other words, public agencies relied heavily on the private sector to self-regulate and solve infrastructural issues with only minimal formal guidance.

These two goals for limited regulation of derivatives run throughout the correspondence between the NY Fed and the finance industry between 2005 and 2008. After the initial meeting in September of 2005, the participant banks met and formed private working groups to tackle the issues of greatest concern. Those groups met independently and set specific goals for improving credit derivative settlement and confirmation processes, trade assignment, as well as yardsticks with which to measure progress. Future involvement by the NY Fed included loose monitoring and the occasional meeting to check the industry’s progress. For the most part, the banks consistently hit their targets for improving trading backlogs and transferring operations to electronic platforms. After each meeting the banks made a progress report available to the press. The one from March 2006 typically opened with the statement that “We are please to update you on our continued progress toward improving Credit Derivatives industry practices. The fourteen industry participants present... are committed to achieving a stronger steady state position for the industry.”<sup>53</sup> The banks dictated the pace of progress and, not surprisingly, were able to keep up with their stated goals.

The ongoing dialogue between banking regulators and financial firms over the treatment of credit derivatives also partially discredits comparisons between that market and the “wild west.” Although federal authorities shied away from ongoing oversight of derivatives trading, a look at the banks’ frequent progress reports to Tim Geithner reveals the existence of a complex system of private organizations that gave the market a degree of orderliness. In order to make improvements on the credit derivative settlement process, the group of banks enlisted the help of private organizations such as the ISDA, the CDS IndexCo LLC, and the International Index Company. For issues concerning the rapid growth of the market and maintaining market flexibility, the banks turned to groups of investors such as the Managed Funds Association and the Asset Managers Division of the Bond Market Association. In order to create a central industry trade information warehouse and support infrastructure, the banks turned to the Depository Trust & Clearing Corporation. Players within the market did not operate in an uncontrolled environment but rather under a set of evolving industry established guidelines.

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<sup>51</sup> Federal Reserve Bank of New York. “Statement Regarding Meeting on Credit Derivatives.” Sep. 15, 2005. [[http://data.newyorkfed.org/newsevents/news\\_archive/markets/2005/an050915.html](http://data.newyorkfed.org/newsevents/news_archive/markets/2005/an050915.html)]

<sup>52</sup> *ibid*

<sup>53</sup> Participants Letter to Tim Geithner. March 10, 2006. [[http://data.newyorkfed.org/newsevents/news\\_archive/markets/2006/industryletter2.pdf](http://data.newyorkfed.org/newsevents/news_archive/markets/2006/industryletter2.pdf)]

Much like the intermittent involvement of public regulators, this “private” regulatory system also focused on facilitating market growth rather than preserving systemic stability.

### **Private Regulatory System**

Although public oversight of credit derivatives remained quite limited in its goals and methods, there was a clear effort within the industry to make sense of these new products and how best to structure the burgeoning market. Perhaps the largest private regulatory effort centered on establishing legal certainty with regards to credit derivatives. The first credit default swap contract was not written until the mid 1990s, and there was not a significant, widespread test on the legal viability of those contracts until the collapse of Enron in 2001. The three major legal issues with credit derivative contracts regarded 1) the confirmation of trades, 2) the details governing the settlement of those contracts given a credit event and 3) the transferability of contractual obligations. Settlement ensures that a CDS holder actually receives a payoff if the necessary credit event occurs. The possibility of assigning CDS injected vital liquidity into the market, which came to dwarf the liquidity of the underlying bond market. This liquidity also made CDS spreads a good indicator of corporate creditworthiness (so good, in fact, that Greenspan began using a CDS index as one of his key indicators about the health of the economy). However, when the holder of a CDS sold the instrument, the counterparty to the deal changed. For institutions to properly manage their counterparty risk, they needed to know who owned the other side of the CDS contract.

The ISDA took charge of the efforts to fashion a set of standards and guidelines on these three issues and regulation in general. In 1998 the ISDA issued a document titled “Proposals for the Regulation of Credit Derivatives.” The industry group’s preferred regulatory framework focused on two key principles. First, they argued, credit derivatives were similar to existing derivatives and therefore were adequately addressed by existing capital rules. The second principle involved the “encouragement of good credit risk management techniques by full recognition of the hedging benefits of credit derivatives.”<sup>54</sup> The approach failed to predict the rise of credit derivatives as speculative instruments and instead assumed that they were fundamentally beneficial from a risk perspective. A set of credit derivatives definitions in 1999 was another early effort by the ISDA to reinforce the burgeoning market. The goal of the definitions, which were later amended in 2003, was to “assist the smooth and efficient functioning of the credit derivatives market by providing a common set of terms for parties to use in preparing Confirmations for privately negotiated credit derivative transactions.”<sup>55</sup> The document dedicated an entire section to defining credit events to aid in the settlement process. With a clearer understanding about different types of credit events, such as bankruptcy, obligation default, and failure to pay, contracted parties could more easily determine whether an event warranted a payoff and develop expectations about future payoffs.

The ISDA similarly took charge in 2005 when issues surrounding assignment arose out of

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<sup>54</sup> ISDA, “Proposals for the regulation of Credit Derivatives.” April 29, 1998. Executive Summary. [<http://www.isda.org/press/pdf/osfi.pdf>].

<sup>55</sup> ISDA, “Introduction to the 1999 ISDA Credit Derivatives Definitions.” 1999. [<http://www.isda.org/publications/intro/1999cddefs-2.pdf>].

industry meetings with the NY Fed. With the 2005 Novation Protocol the ISDA provided market participants a standardized process by which a party could transfer its interests in a credit derivative to another party. The protocol included an adherence letter and a process by which the transferring party could gain consent from the non-transferring party. The ISDA later altered the adherence process in the ISDA Novation Protocol released in February of 2006. The NPIL, as it was later termed, included a limited right to revocation that the ISDA believed would be more attractive to investing funds, acknowledging the changing composition of CDS users.<sup>56</sup> The ISDA also provided market support during major default events and legal disputes. For example, in 2006 the ISDA filed an amicus curiae brief to the US Court of Appeals that helped successfully reverse a prior decision that could have made CDS counterparties liable for their trading partners mistakes.<sup>57</sup><sup>58</sup> In 2008 the ISDA furnished a protocol for the Lehman bankruptcy that included an adherence letter and described an auction system to determine the payouts for CDS holders.<sup>60</sup>

In addition to international organizations, industry journals disseminated information about many of the issues involved in the growth of the new market. One such publication, *Derivatives Week*, closely followed the internal issues associated with derivatives. Articles in the late 1990's of *Derivatives Week* highlight settlement issues, how turmoil in emerging markets revealed flaws in derivatives contracts, information about ISDA definitions and the problems they failed to solve, and how to risk weight derivatives based on German banking rules.<sup>61</sup> Similar journals such as *Asset Securitization Report* and *High Yield Report* gave more industry specific news such as trends in the market, what new products were coming out, and a discussion about the narrow set of reference entities that the market focused on.<sup>62</sup> Although support and regulation from the public sphere was very limited, the industry itself produced a significant amount of literature as parties tried to make sense of this new market.

Behind the industry-wide efforts to establish legal certainty and disseminate important market information, each bank's internal risk management division adopted an institution-specific

<sup>56</sup> ISDA, "Details Relating to the ISDA Novation Protocol II. Accessed April 2011.

[<http://www.isda.org/isdanovationprotII/docs/NPILbriefexp.pdf>].

<sup>57</sup> "ISDA Challenges court 'misunderstanding' of CDS contracts." *Euroweek*, May 19, 2006.

<sup>58</sup> US 2<sup>nd</sup> Court of Appeals. Amicus Curiae in support of Defendant-Appellant.

[<http://www.isda.org/speeches/pdf/ISDA-Amicus-Curiae-Brief05-08-06.pdf>].

<sup>59</sup> Aon Financial Products Inc. v. Societe Generale. US Court of Appeals, 2<sup>nd</sup> Circuit, August 2006. [[http://www.isda.org/press/pdf/cv\\_opn.pdf](http://www.isda.org/press/pdf/cv_opn.pdf)].

<sup>60</sup> ISDA. "2008 Lehman CDS Protocol." Accessed March 2011.

[<http://www.isda.org/2008lehmancdsprot/2008lehmancdsprot.html>]

<sup>61</sup> "Dealers and Banks Tussle over Credit Swap Settlements." *Derivatives Week*. Vol. 8 issue 45. Nov. 8, 1999: P.4.; Sarah Yavorsky. "Default swap glitches take center stage." *Derivatives Week*. Vol. 7 issue 43. October 26, 1998. P. 1.; "Dispute Resolution Debate Stalls ISDA Booklet Release." *Derivatives Week*. Vol. 8 issue 23. June 7, 1999: P. 2.; "German Credit Derivative Rules." *Derivatives Week*. Vol. 8 issue 27. July 5, 1999: P. 8.

<sup>62</sup> Allison Pyburn. "Lots More Action for CDOs in 2006." *High Yield Report*. Vol. 17 issue 6. Feb. 13, 2006: P. 2-9.; "Hybrid CDO structures satisfy market need." *Asset Securitization Report*. Vol. 5 issue 44. Nov. 11, 2005: p. 12.; Associated Press. "Name concentration up within U.S. CDS Sector." *Asset Securitization Report*. Vol. 6 issue 15. April 17, 2006: p. 7.

approach to risk. While it is difficult to get a clear picture of what senior management was thinking during the rapid growth of the derivatives market, there are some clues about the conceptual framework used by CDS dealers within financial institutions. In 1999, as a reaction to the Long-Term Capital Management hedge fund failure, a number of high-ranking officials within major banks formed the first Counterparty Risk Management Group. Their work focused primarily on the risk that hedge funds brought to the financial system and the potentially detrimental effect of high leverage. A second group formed in February of 2005 under very different circumstances. Before the GM downgrade sent minor shocks through the credit derivatives market, the overall market environment had appeared to be incredibly benign, reflecting the generally positive economic environment for corporations. During 2004 and early 2005, the spreads between corporate bonds and treasuries became historically thin, indicating a low level of risk. The group believed that the economic climate could not remain favorable forever, however, so they decided to examine the potential ramifications of a market reversal. With support from the NY Fed, the group set out to examine the systemic impact of a turn in the credit cycle, the potential risks of new financial products, the interconnected nature of the financial system, and lingering issues related to leverage.<sup>63</sup>

The most interesting aspect of the resulting report, which was addressed to Hank Paulson as an effort to improve the stability of the financial system, involved not the individual recommendations for issues such as trading infrastructure and disclosure, but rather the general framework that the group adopted. While acknowledging that “rules have their place,” the group believed that the “fundamentals of managing financial risks in today’s complex environment are not to be found in excessive reliance on a rules-based framework for risk management.”<sup>64</sup> The report favored the “time-honored basics of managerial competence, sound judgment, common sense and the presence of a highly disciplined system of corporate governance.”<sup>65</sup> Industry insiders, then, had at least some grasp of the inherent risks engrained in the quickly evolving financial system. They fully recognized that the rapid pace of innovation and increasing complexity of the financial markets created new challenges. At the same time, these elite insiders had no doubts about whom they believed was in the best position to tackle those new challenges. In their view, the banks themselves, and not government regulators, were in the best position to regulate. Their argument rested largely on the belief that the banks had more experience with managing risk and greater understanding of the financial markets than outside regulators could ever manage.

One would expect industry insiders to recommend self-regulation, especially considering the degree of confidence, supported by economic results, that the banks had in themselves at the time. However, the degree to which the group trusted the banks to manage themselves is noteworthy. There seems to be little concern for global issues that would require a level of coordination and restraint that might not arise naturally if each bank looked out only for its own interest. This confidence in internal risk management bordered on arrogance and suggests a key reason that even top executives within the industry failed to see the financial crisis coming.

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<sup>63</sup> Henny Sender. “Street Sleuth: Risk Watchers, Part 2: Peering over the hedge.” Wall Street Journal. Feb 25, 2005: C1.

<sup>64</sup> “Toward Greater Financial Stability: A Private Sector Perspective.” Counterparty Risk Management Policy Group II. July 27, 2005: P. 10.

<sup>65</sup> *ibid*

Michael Greenberger criticized the general sentiment within the banks and among important regulatory officials during his battle to pass OTC derivative regulation within the CFTC. In his mind, the CFMA decided “the market will be limited henceforth to 'sophisticated investors,' not the widow and orphan. [They] won't be able to invest in it. But companies with names like Lehman Brothers, Bear Stearns, AIG, Merrill Lynch -- they're savvy -- will take control of these markets.”<sup>66</sup> Complexity gave major financial institutions more regulatory leeway. Complexity also limited the scope of regulatory concerns by confining the market to sophisticated players. In the eyes of many regulators, sophisticated investors knew what they were doing and did not need the same protections against fraud and counterparty risk that “simpler” investors might require.

## Ideology

The relative preference for private regulatory structures over public oversight, driven by a confidence in the industry to manage its own risks, fits well within the ideological context governing policy-making at the time. Simply put, the 1980's and 1990's was a time of extensive government deregulation supported by a strong belief in the power of free markets. Hand-in-hand with the free-market ideology dominating policy making was a high level of confidence in the benefits of innovation in general and financial innovation in particular. Investors and politicians alike believed that these innovations brought real improvements to the economy and made the financial system more resilient than ever before. There is one additional important fact to consider that gave credence to the prevailing ideology of the time: after a deep recession in the early 1980s, the American economy boomed for much of the next quarter century, with the exception of brief recessions in 1991 and 2000-01. While foreign countries experienced crisis after debilitating crisis, the US economy experienced rapid growth, low unemployment, and low volatility. In 1999 confidence in US economic policy was so high that *Time* magazine labeled Alan Greenspan, Robert Rubin, and Larry Summers “the committee to save the world.”<sup>67</sup> The policies of America's top financiers and bankers appeared to work, while the new, complex financial products performed impressively in a favorable economic climate.

Endemic inflation and stagnating growth in the mid 1970s brought the issue of regulation and the burden those regulations can impose on the economy to the forefront of American politics.<sup>68</sup> When Jimmy Carter assumed the presidency in 1977, he began a period of regulatory reform by deregulating the airline and trucking industries. These actions served only as a prologue to the Reagan Administration's assault on the size and power of the state. “Government,” Reagan boldly proclaimed, “is not a solution to our problem, government is the problem.” Reagan's approach to regulatory questions was largely shaped by the Chicago School of economics, which gave academic credence to the movement for deregulation. Alan Greenspan, an acolyte of free-markets and minimal government regulation, came to embody the Chicago School approach, using his great influence to vigorously apply its intuitions to the United States economy. “The

<sup>66</sup> Michael Greenberger, Frontline Interview. Oct. 20, 2009.

[<http://www.pbs.org/wgbh/pages/frontline/warning/interviews/greenberger.html>].

<sup>67</sup> Joshua Ramo. “The Three Marketeers.” *Time Online*. Feb. 15, 1999.

[<http://www.time.com/time/world/article/0,8599,2054093,00.html>].

<sup>68</sup> Thomas McCraw, *Prophets of Regulation*, (Cambridge: Belknap Press of Harvard University Press) p. 259.

self-interest of market participants,” he argued in a typical 1997 speech, “generates private market regulation. Thus, the real question is not whether a market should be regulated. Rather, the real question is whether government intervention strengthens or weakens private regulation.”<sup>69</sup> Greenspan provided the answer to that question for the banking industry: “Market participants usually have strong incentives to monitor and control the risks they assume in choosing to deal with particular counterparties. In essence, prudential regulation is supplied by the market through counterparty evaluation and monitoring rather than by authorities. Such private prudential regulation can be impaired--indeed, even displaced--if some counterparties assume that government regulations obviate private prudence.”<sup>70</sup> There are two important points here. First, Greenspan believed that the private regulatory system governed by market incentives mitigated counterparty risk. Second, he believed that government intervention would actually decrease market stability by introducing moral hazard – participants would lose the incentive to self-regulate because they would believe the government had everything under control. By staying out of the way, Greenspan assumed, government would furnish incentives for firms to look out for themselves.

In addition to fears surrounding moral hazard, there was an even stronger ideological current that encouraged deregulation – the belief that government involvement hindered markets and reduced American competitiveness abroad. In 2000 John Hawke, the Comptroller of the Currency, described the regulatory dilemma: “how do we balance our responsibility under the law for ensuring the safety and soundness of the banking system, on the one hand, with the burdens of supervision on the other -- burdens that, if not carefully contained, can actually undermine safety and soundness?”<sup>71</sup> In that same speech Hawke confidently asserted that “few would deny that the burdens of supervision have contributed to the erosion of the banking industry’s market share and competitive strength over the years.”<sup>72</sup> It is noteworthy that as of 2000, just as efforts to regulate OTC derivatives were failing, key regulatory officials, such as Hawke, still believed that banking regulation had become too stringent. In fact, regulatory concern about the growth and competitiveness of the credit derivatives market emerged as early as 1998. In a speech to the ISDA, Fed Governor Susan Phillips argued, “the growth of credit derivatives also has been constrained by the lack of hedging instruments... I am surprised that this profit opportunity has not yet been exploited. It illustrates, no doubt, the difficulty of overcoming the impediment of data availability and of pricing credit risk.”<sup>73</sup> While Phillips’ comments do not explicitly refer to the burden regulation can place on markets, in particular fledgling markets, it does illustrate a general concern for the growth and productivity of the industry. Officials who focused particularly on supporting the expansion of financial markets were unlikely to put in place policy

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<sup>69</sup> Alan Greenspan, “Government Regulation and Derivative Contracts.” Remarks at Financial Markets Conference of the Federal Reserve Bank of Atlanta. February 21, 1997 [http://www.federalreserve.gov/boarddocs/speeches/1997/19970221.htm].

<sup>70</sup> Alan Greenspan, “Corporate Governance.” Remarks at 2003 Conference on Bank Structure and Competition. May 8, 2003. [http://www.federalreserve.gov/boarddocs/speeches/2003/20030508/default.htm]

<sup>71</sup> John D. Hawke, “Remarks before the American Bankers Association.” Sep. 17, 2000. [http://www.occ.gov/static/news-issuances/speeches/2000/pub-speech-2000-71.pdf].

<sup>72</sup> *ibid*

<sup>73</sup> Susan Phillips. “Remarks before the ISDA.” March 26, 1998. [http://www.federalreserve.gov/boarddocs/speeches/1998/19980326.htm]



measures that could potentially constrain that growth.

Even efforts to tighten financial regulation indicate the dominance of competitiveness as an abiding theme of regulatory debates. The proponents of such initiatives invariably expressed concerns over the negative economic impact those regulations could have. Thus the concept release by the CFTC, perhaps the key step in the largest effort to regulate OTC derivatives, asked “how best to maintain adequate regulatory safeguards without impairing the ability of the OTC derivatives market to grow and the ability of U.S. entities to remain competitive in the global financial marketplace.” The Counterparty Risk Management Policy Group II report states the problem in nearly identical language: “thus, we are left with a classic dilemma – that is, how do we design programs...without undermining the substantial societal benefits generated by the contemporary global financial system?”<sup>74</sup> Public officials inevitably face dilemmas when deciding between competing policy objectives. With each regulatory framework, there is an implicit ranking of those policy objectives. Over the past few decades in the finance industry, market growth and global competitiveness came out at the top of the hierarchy.

Industry insiders and government regulators alike were reluctant to give other countries a competitive advantage by imposing ostensibly unnecessary and burdensome regulation on the financial services industry. Most financial elites viewed the industry as having made great strides over the past few decades, progress that they attributed to innovation. Derivatives represented perhaps the greatest innovation during Greenspan’s time at the Fed, and in 2003 he praised their utility in particularly fulsome language: “Derivatives,” he proclaimed, “have permitted financial risks to be unbundled in ways that have facilitated both their measurement and their management. Because risks *can* be unbundled, individual financial instruments now can be analyzed in terms of their common underlying risk factors, and risks can be managed on a portfolio basis.”<sup>75</sup> To Greenspan, such unbundling was not simply good for its own sake. Instead, Greenspan believed that the development of increasingly complex financial instruments made a “far more flexible, efficient, and hence resilient financial system than the one that existed just a quarter-century ago. After the bursting of the stock market bubble in 2000, unlike previous periods following large financial shocks, no major financial institution defaulted, and the economy held up far better than many had anticipated.”<sup>76</sup> Derivatives were not just enormously profitable; Greenspan also saw them as the catalyst of progress and the cause of American financial and economic dominance. Up until the mid 1990s derivatives were flourishing but bankers were still unable to manage one of the greatest risks in the industry – credit risk. Then credit default swaps hit the scene and suddenly banks had the means to unload their large credit exposures and spread risk in new and creative ways.

The confidence in the benefits of financial innovation led many observers to believe that the industry had entered a period of increased stability and improved profitability. Industry executives and outside investors alike believed that the increases in profitability were a permanent result of legitimate efficiency-enhancing innovations in the industry rather than wildly

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<sup>74</sup> “Toward Greater Financial Stability: A Private Sector Perspective.” Counterparty Risk Management Policy Group II. July 27, 2005: P. 2.

<sup>75</sup> Alan Greenspan, “Corporate Governance.” Remarks at 2003 Conference on Bank Structure and Competition. May 8, 2003.

<sup>76</sup> *ibid*

risky and speculative bets. Investors seemed to agree, becoming so confident in the fortunes of major financial institutions that total market capitalization of financials in the S&P 500 grew from under 10% of the index in the early 1990s to over 21% at the peak of the industry in 2007.<sup>778</sup> In 2008 the Comptroller of the Currency, John Dugan, looked back at the obsession with one such innovation, collateralized debt obligations (CDO), and observed that: “there was perceived to be increased diversification benefits resulting from having multiple pools of subprime mortgages reflected in the CDO pool, rather than having a single pool.”<sup>79</sup> In the minds of industry insiders as well as government regulators, the banks were safer than they had ever been in the past, since new products allowed “banks of all sizes to disaggregate the risks that are found in financial instruments and services, and to transfer those risks to parties who are more willing, or better suited, to assume or manage them.”<sup>80</sup> Given the context of a benign economic climate, belief in the power of free-markets to self-regulate, a rapidly growing financial services industry that grew from just 4% of GDP in the 1960s to double that by 2006, and new products that seemed to shore up market stability, there seemed little need for regulators to introduce new constraints.<sup>81</sup>

## Risk Awareness

Despite a general confidence in the powers of the free-market and the abilities of bankers to manage risk, many, if not most, officials grasped some elements of the risks associated with the changes in the financial system. As mentioned earlier, many of those risks were identified as early as 1995. Throughout the rapid expansion of the market, even after the “results had spoken for themselves” so to speak, key officials continued to express concerns. Although regulators largely underestimated those risks up until the fall of AIG, it is important to recognize that any regulatory shortcomings were not due to complete ignorance but rather a general distaste for government involvement in a booming economy. Rather than view those risks as a problem best solved by government regulation, officials believed that the industry itself was in the best position to manage risk. Leaving a \$1 trillion market to its own devices in 2001 could be an oversight. Maintaining that same regulatory framework once that market had reached \$62 trillion in 2007 suggests a conscious policy of inaction.

Fears over the potentially damaging effects of derivatives were not confined to a few

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<sup>77</sup> Jeremy Siegel and Jeremy Schwartz. “The Long-term Returns on the Original S&P 500 Firms.” Rodney L. White Center for Financial Research. Draft on Dec. 5, 2004. [<http://finance.wharton.upenn.edu/~rlwctr/papers/0429.pdf>].

<sup>78</sup> “The financial services industry is still the largest S&P 500 Sector – Even after the Collapse of its stock values.” Personal Investment Management and Financial Planning Blog Directory. Accessed April 2011. [<http://www.theskilledinvestor.com/wp/the-financial-services-industry-is-still-the-largest-sp-500-sector-even-after-the-collapse-of-its-stock-values-255.htm>].

<sup>79</sup> John Dugan, Comptroller of the Currency, “Remarks before the Global Association of Risk Professionals.” Feb. 27. 2008.

<sup>80</sup> John Dugan, Comptroller of the Currency, “Remarks before the New York Bankers Association.” Nov. 10, 2006.

<sup>81</sup> Gross Domestic Product By Industry Data. “Historical Data.” Bureau of Economic Analysis. [[http://www.bea.gov/industry/gdpbyind\\_data.htm](http://www.bea.gov/industry/gdpbyind_data.htm)].

“naysayers” but were rather vocalized by key regulatory officials. In 2004 Tim Geithner, then head of the NY Fed, recognized that the rise of broker-dealers and hedge funds as well as the movement away from traditional banks meant “there are a larger number of non-bank financial intermediaries operating outside the supervisory safety and soundness framework established for banking organizations.”<sup>82</sup> Several years before the onset of the financial crisis, then, Geithner acknowledged the existence of a shadow banking system largely outside of regulatory oversight. In the same speech, Geithner recognized that financial innovation improved the system but did not leave it invulnerable: “Financial innovation has brought about a dramatic increase in the opportunities for diversification and risk transfer and in the sophistication of risk management, but it is unlikely to have brought an end to the periodic tendency of markets to experience waves of mania and panic.”<sup>83</sup> Geithner, however, remained confident in the capacity of private regulatory mechanisms to ward off any systemic dangers. The existence of systemic risk, he maintained, “makes it important that **management** of these large firms maintain an ample capital cushion over and above the high regulatory thresholds (emphasis added).”<sup>84</sup> Rather than introduce regulation to control for the possibility of a rare but severe crisis, Geithner suggested that management should bear the responsibility.

In addition to systemic flaws, various officials were able to pinpoint very specific risks relating to credit derivatives. Had regulators addressed these issues more completely, the United States would likely have avoided many of the more crippling affects of the financial crisis. In a 2006 speech the head of the OCC, John Dugan, identified three major risk categories associated with CDS: operational, pricing, and credit.<sup>85</sup> Yet his comments focused not on the potential dangers of insufficiently measuring these risks, but rather the likelihood that some economic analysts were overstating them. With regard to operational risk, Dugan cited the progress in the settlement of trades and the movement towards electronic trading platforms. In terms of price risk, he noted that with 100 data points for quarterly trading returns, only four showed losses at the time. “The infrequent incidence of such losses,” he argued in a 2006 speech before the New York Bankers Association, “reflects in part the internal limits that dealer banks use to keep price risk exposures at relatively small percentages of earnings and capital, and in part the substantial stream of revenue generated from dealer spreads on individual derivatives transactions.”<sup>86</sup> Finally, for credit risk he insisted that margin and collateral requirements protected market participants from extreme changes in credit quality. Dugan also pointed out a fundamental error in how many media skeptics evaluated risk. Rather than look at notional value outstanding, which is an enormous sum, he argued that analysts should look at net credit exposure -- the amount the banks would owe if all derivatives contracts were liquidated. In comparison to the total notional value of \$119 trillion, net credit exposure only amounted to \$199 billion at the time of Dugan’s speech.<sup>87</sup> Finally, Dugan addressed market concentration. In his view, intense concentration of

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<sup>82</sup> Timothy Geithner. “Changes in the Structure of the U.S. Financial System and Implications for Systemic Risk.” Remarks before the Conference on Systemic Financial Crises at the Federal Reserve Bank of Chicago. Oct. 1, 2004.

<sup>83</sup> *ibid*

<sup>84</sup> *ibid*

<sup>85</sup> John Dugan, Comptroller of the Currency, “Remarks before the New York Bankers Association.” Nov. 10, 2006.

<sup>86</sup> *ibid*

<sup>87</sup> John Dugan, Comptroller of the Currency, “Remarks before the New York Bankers

derivatives trading among a few key players was the natural and harmless result of the resource and information intensive nature of the market. Beyond this “natural oligopoly” of sorts, Dugan maintained that the OCC was ensuring that banks were “well capitalized and have the necessary expertise, personnel, and resources to manage their derivatives effectively.”<sup>88</sup> Human capital, then, was as essential to bank regulation as financial capital.

Even Greenspan himself recognized some of the inherent risks in the system including inaccurate models and an under-estimation of tail events. In a 2003 speech he stated that “[I do] not wish to suggest, however, that I am entirely sanguine with respect to the risks associated with derivatives.”<sup>89</sup> Specifically, he listed market concentration and disclosure as two key issues that concerned him. Again, the key point is that although Greenspan acknowledged the existence of systemic risks, he failed to take specific public action to mitigate them. In line with the prevailing ideology, regulators believed that banks had significant comparative advantages in managing their risks and that the derivatives market, which was comprised mainly of sophisticated players, would not prove particularly susceptible to fraud. In fact, the faith in private regulatory efforts spread to the ratings agencies as well. In 2008 the head of the OCC acknowledged that “the triple A rating (on CDO) sent a very powerful signal to the investor **and regulatory** community that the senior tranche was truly low risk (emphasis added).”<sup>90</sup> Here we can see a general deferral on the part of regulators to “more experienced” players. Financial institutions and ratings agencies could control their own market and did not need the help of government bureaucrats.

Nor did it take a degree of separation to appreciate the mounting risks. There is evidence that the banks themselves understood the risk that increased complexity and interconnectivity brought to the system. Although the Counterparty Risk Management Policy Group report ironically did not suggest implementing capital requirements, historically one of the major checks against counterparty risk, it did signal that industry insiders largely recognized the major risks facing the industry. The report touched on the potential dangers of “tail events,” counterparty risk, a sudden decrease in market liquidity, and inaccurate models. More specific to credit derivatives and similarly complex financial products, the group acknowledged the need to improve trade processing and settlement, increase disclosure, and prevent fraud.<sup>91</sup> As of 2005, then, the key regulatory debates about credit derivatives did not involve so much a general ignorance of the risks associated with these complex financial products and inherent in such an interconnected financial system (although surely the group did underestimate these risks) but rather discussion about how best to handle these issues. While Brooksley Born, and to a lesser degree certain members of the NYSID, believed that public oversight was necessary, industry insiders believed outside intervention would only burden the industry. The CPRMG report called for a “systemic review and approval process” for new products, but insisted that the review process should be

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Association.” Nov. 10, 2006. P.3.

<sup>88</sup> *ibid* p. 11

<sup>89</sup> Alan Greenspan, “Corporate Governance.” Remarks at 2003 Conference on Bank Structure and Competition. May 8, 2003.

<sup>90</sup> John Dugan, Comptroller of the Currency, “Remarks before the Global Association of Risk Professionals.” Feb. 27, 2008.

<sup>91</sup> “Toward Greater Financial Stability: A Private Sector Perspective.” Counterparty Risk Management Policy Group II. July 27, 2005.

carried out by a “senior level committee or similar group” rather than a neutral, expert public entity, such as an FDA-like financial agency, with the power to license new financial instruments.<sup>92</sup> Similarly, the report recommended that each bank have a “dedicated and fully independent group of professionals who are fully responsible for all aspects of model verification.”<sup>93</sup> This group would monitor the development of risk models, ensuring that they remained sensibly prudent. To deal with systemic risk, financial firms need only tend to sound practices within the firm. They did not need any national oversight.

The ultimate effect of the prevailing ideology of the time was that government regulators deferred to the banks and the banks had complete confidence in their ability to manage risk. In many highly technical economic domains, regulation requires an incredible degree of expertise. In the field of finance, regulators and industry insiders alike believed that the banks could regulate better than any outside agency. Furthermore, the banks could presumably self-monitor without stifling growth. As bankers developed ever-more complex products, moreover, public officials’ confidence in their ability to regulate may have declined. With each new innovation, the imbalance between industry knowledge and regulator knowledge only widened. After all, banks were supposed to be professional risk-managers. Surely they could manage the risk of their own industry, especially with these fancy new derivative products available. It should come as no surprise that an industry left to its own devices self-regulated in a way to promote its growth. Any controls, monitoring, or involvement of private agencies such as the ISDA aimed at facilitating market growth, not at preserving systemic stability. This lax regulatory regime led to remarkable prosperity within the financial world, at least for a time. The finance industry moved from the boring and relatively simple task of taking in deposits and extending loans to the more lucrative business of dealing derivatives and investing firm capital. American debt products, as represented by the ever-growing capital account surpluses and capital inflows, became one of the United States’ largest exports.<sup>94</sup> There was little reason to doubt the financiers. Then Bear Sterns collapsed and there was a big reason to doubt them.

## Conclusion

In retrospect, there is a great temptation to describe a \$62 trillion market that collapsed to under half that value in less than two years as an unruly episode in which regulators had no idea of looming risks, and in which market participants had government officials completely under their control. However, such a superficial analysis would ignore key events in the regulatory history of the credit derivatives market. It would ignore the failed effort by the CFTC to update the regulatory framework for OTC derivatives. It would ignore conversations within the NYSID to regulate CDS as insurance. It would ignore statements by key officials, including Greenspan and Geithner, that demonstrate general awareness of the risks credit derivatives brought to the system. It would ignore the plethora of internal supporting structures including the ISDA and internal risk management divisions. It would ignore statements by major industry participants that predicted, almost perfectly, how a crisis would unfold in a world ruled by derivatives and

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<sup>92</sup> *ibid*

<sup>93</sup> *ibid* p. 31

<sup>94</sup> “The U.S. Capital Account Surplus.” *Economic Report of the President*. P. 126, 143. [<http://usa.usembassy.de/etexts/econ/eop/2006/2006-6.pdf>].

high leverage.<sup>9596</sup>

Given the breadth of understanding about potential systemic risks posed by credit derivatives, why did public and private interests adopt the regulatory framework that they did? Eric Dinallo characterized the failure of the adopted regulatory approach well with his discussion of AIG: “When we were dealing with finding a solution for AIG, we knew the company had written almost half a trillion dollars in swaps, but we had no idea how much in swaps had been written on AIG itself or by whom. That meant we did not know what the broader effect of an AIG bankruptcy would be.”<sup>97</sup> At least a few regulators, such as Brooksley Born, looked into the darkness of the shadow banking system and saw a market growing way too fast for its own good. In addition to standard concerns about capital requirements and fraud protection, these officials worried that neither public officials nor internal players even knew the true size of the market. Regulations would have meant that “this multitrillion market would now have to be traded transparently” Michel Greenberg argued, “with capital reserves, with fraud and manipulation requirements, with the regulation of intermediaries, and organized exchanges rather than this private little gamesmanship where it was.”<sup>98</sup> Instead, the market was left in the shadows where the big dogs could play.

Here is where ideology met economic agenda. In the eyes of economic and regulatory policymakers, external regulation would stifle growth and American competitive advantage in its keynote industry – finance. And if there was ever an industry that could govern itself, that would adhere to the self-regulatory principles endorsed by free-market economists, that was motivated by incentives, it was finance, the industry that ostensibly embodied the capitalist ideal. Regulators knew that the financial markets needed checks and they thought there was nobody better positioned to provide those checks than the industry itself. To be fair, for the most part internal regulation seemed to be effective. Industry groups such as the ISDA handled major legal challenges facing the market. In a world where growth is also a measure of market integrity, the bankers made a market grow to 100 times its original size in just over 6 years. Greenspan believed that the free market would steer away from shady practices and dangerous products. There was no other way to explain the rapid growth in the CDS market than with the utility of

<sup>95</sup> “Toward Greater Financial Stability: A Private Sector Perspective.” Counterparty Risk Management Policy Group II. July 27, 2005: P.7.

<sup>96</sup> A deeper look into internal documents, both within key financial institutions and regulatory agencies, would likely reinforce the point that key players were aware of both the potential for growth and for destruction that the credit derivatives market brought. Financial institutions, one would assume, were heavily concerned with establishing themselves within a brutally competitive industry. The lure of profit, while it brought forth market-based issues, largely pushed aside systemic concerns. A closer look at documents within key regulatory industries would help pin down exactly when officials recognized the great potential that an American led CDS market held. It would also reveal the arguments officials used, likely derived from free-market ideological undercurrents, for placing market growth at the top of their regulatory agenda.

<sup>97</sup> Eric Dinallo, Testimony Before Committee on Agriculture, Nutrition, and Forestry. Oct. 14, 2008

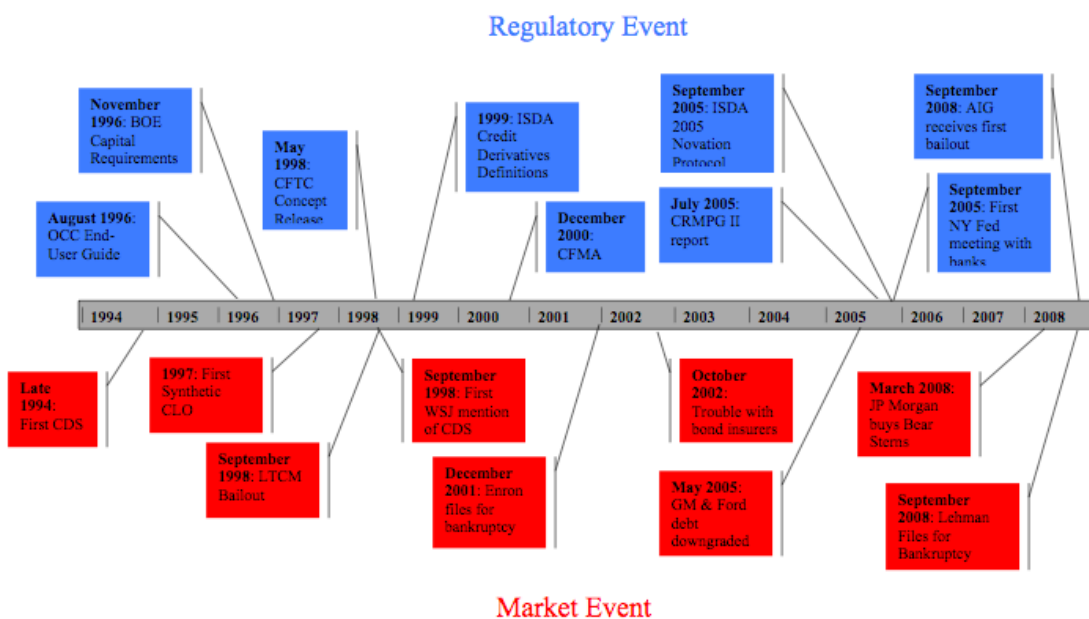
<sup>98</sup> Michael Greenberger, Frontline Interview. Oct. 20, 2009.

[<http://www.pbs.org/wgbh/pages/frontline/warning/interviews/greenberger.html>].

the products.

Once one considers who was regulating the market – mainly the industry itself – the regulations that did come to govern the market make intuitive sense. The ISDA helped establish legal certainty to facilitate market activity. Their involvement centered on solidifying the procedural steps necessary for getting deals done. Credit derivative definitions helped parties confirm (create) contracts. Novation protocols help parties transfer (re-sell) contracts. Settlement protocols help parties settle (close out) contracts. The banks, with the organizational skills of the Fed, put in place electronic trading systems to help facilitate market activity. Trade publications alerted dealers to new areas of growth and potential contractual flaws that could arise. There were no capital requirements because drains on capital stifle market activity. There were no disclosure requirements because fraud was only supposed to happen to unsophisticated players. There were no exchanges because any standardization of the process would limit the flexibility of market participants and potentially limit growth.

That is not to say that officials were completely knowledgeable about the ramifications a large derivatives market would have on the financial system and simply made a tactical error on who was best positioned to regulate it. To be sure, everyone involved, financiers, government officials, and investors alike, underestimated the extent to which concentrated losses in an interconnected system would send ripples throughout the world economy. Here ideology plays an important role. Bankers and public officials knew about tail risk, they knew about counterparty risk, and they knew about the amplifying effects of leverage. But they did not know about the true size and composition of the CDS market. They also could not fathom a complete market reversal after years of growth that they believed was grounded in fundamental technological and financial innovations. Basically the main players in government and within the banks wanted to, and did, believe that the boom in finance was supported by strong fundamentals. Call it a confirmation bias, but up through 2007 policy makers only saw evidence to support their economic beliefs. Regulation was a tool to reinforce that economic agenda -- let it grow.



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