

What risks and challenges do credit default swaps pose to the stability of financial markets?

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Credit default swaps (CDSs) pose a number of risks to institutions and markets, many of which are not unique. These risks include counterparty credit, operational, concentration, and jump-to-default risks. CDSs also pose other risks and challenges. For example, CDS markets generally lacked transparency, which may have compounded market uncertainty about participants' overall risk exposures, the concentration of exposures, and the market value of contracts during the recent crisis. Further, regulators note that the potential existed for market participants to manipulate certain CDS prices to profit in other markets that CDS prices might influence, such as the equity market, and that the lack of transparency could contribute to this risk. Others also raised concerns about the use of CDSs for speculative purposes, including concerns about uncovered or "naked" CDS positions – the use of CDSs for speculative purposes when a party to a CDS contract does not own the underlying reference entity or obligation. While regulators and market participants note that over-the-counter (OTC) derivatives, to varying degrees, pose some similar risks, particularly equity derivatives, the US regulatory structure for CDSs does not provide any one regulator with authority over all participants in the CDS market, thereby making monitoring and managing potential systemic risk difficult.

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Credit default swaps (CDSs) offered the most recent example of the challenges of regulating financial markets in the 21st century. Like many other over-the-counter (OTC) derivatives, CDSs pose a variety of risks and challenges to financial institutions and the stability of the financial system. In the months leading up to the most recent crisis, CDSs became a major focus when CDS spreads widened in the days leading up to the bankruptcy of Bear Stearns as more CDS buyers sought credit protection, concerns were raised around the settlement of CDS contracts on Lehman Brothers following its bankruptcy, and the likelihood of a bankruptcy increased at American International Group, Inc. (AIG) as a result of losses generated by the company's sale of CDSs. The unfolding crisis led many to question the opacity of the CDS markets and how best to manage their risks. While the recent crisis has prompted reconsideration of the current regulatory structure to better enable it to address systemic issues that may arise, it has also prompted regulators to push for and several major banks to commit to clear OTC derivative trades, including CDSs, through a clearinghouse.

1 | CDS POSE FOUR MAIN RISKS TO FINANCIAL INSTITUTIONS AND MARKETS

The main risks to financial institutions and markets from credit default swaps include counterparty credit risk, operational risk, concentration risk, and jump-to-default risk. However, the degree of risk associated with CDS varied depending on (1) the type of CDS, (2) the reference entity for the CDS, and (3) how the CDS was used. In simple terms, counterparty credit risk is the risk to each party in an OTC derivatives contract that the other party will not fulfill the obligations of the contract. Banks and other financial institutions that have large derivatives exposures use a variety of techniques to limit, forecast, and manage their counterparty risk, including margin and collateral posting requirements. In particular to CDS, besides potentially not receiving contractual payments, a purchaser of CDS whose counterparty fails would suddenly be left without protection and could either

have to replace the CDS contract at current, higher market values or go without protection.

Regulators, market participants, and observers identified several challenges in managing CDS counterparty credit risk. First, although margin and collateral posting serve as a primary means of mitigating the risk of loss if a counterparty does not perform on its contractual obligations, calculating margin and collateral amounts can be difficult because of the challenges associated with determining the actual amount of counterparty exposure and the value of the reference asset. Specifically, agreeing on the valuation of CDS contracts on asset-backed securities (ABS) and collateralised debt obligations (CDOs) may be difficult for market participants. Second, margining practices are not standardised and vary depending on the counterparty. For example, market participants and observers suggested that institutions with high credit ratings, for which exposures were considered to pose little credit risk, were not initially required to post collateral. These firms included bond insurers and AIG Financial Products, a noninsurance subsidiary of AIG. However, when some of these institutions' ratings were downgraded, the institutions had difficulty meeting collateral calls. Third, the CDS market lacks comprehensive requirements for managing counterparty credit risk. Finally, bilateral collateral and margin requirements for OTC derivatives do not take into account the counterparty credit risk that each trade imposes on the rest of the system, allowing systemically important exposures to build up without sufficient capital to mitigate associated risks.

The second type of risk is operational risk. This is the risk that losses could occur from human errors or failures of systems or controls. With CDSs, there are several operational steps that are required to process trades, such as trade confirmation, which were not automated until recently and thus created backlogs in the system. In a report issued in 2007, Government Accountability Office (GAO) reported that these backlogs were largely due to a decentralised paper-based system and the assignment of trades to new parties without notifying the original dealer – a process known as novation. For instance, in September 2005, some 63 percent of trade confirmations (or 97,650) of the 14 largest credit derivatives dealers had

been outstanding for more than 30 days. These large backlogs of unconfirmed trades increased dealers' operational risk, because having unconfirmed trades could allow errors to go undetected that might subsequently lead to losses and other problems. Potential problems also existed in the operational infrastructure surrounding physical settlement, novation, and valuation of CDS.

The third type of risk, concentration risk, refers to the potential for loss when a financial institution establishes a large net exposure in similar types of CDS. For example, AIG presented concentration risk because it sold a significant amount of CDS protection on related reference entities without also holding offsetting positions and did not sufficiently manage this risk. This risk tends to be greater for dealers that sell CDS protection because no margin and collateral requirements exist to help ensure that the selling firm will be able to meet its potential obligations. Also, the potential exposures are greater and more uncertain than the fixed premium payments of a purchaser of CDS protection. Additionally, if a market participant decides to hold a large concentrated position, it could experience significant losses if a credit event occurred for one or more reference entities. But concentration risk can create problems for market participants even without a credit event involving the reference entity. For example, a market participant may face obligations to post collateral on a large net exposure of CDSs if its financial condition changes, potentially resulting in financial distress for the dealer. AIG is a well-known example of this problem. When its credit rating was downgraded, the contracts required that it post collateral, contributing to the company's liquidity crisis.

Market participants suggested that the degree of risk from concentrated net exposures was tied to the nature of the reference entity or obligation. For example, a concentrated position in CDSs on mortgage-related CDOs may present more risk than CDSs on a highly-rated corporation or US government bonds. Further, concentration risks at one firm may also present challenges to other market participants and the financial system. According to a regulator and an observer, the lack of clear information on the net CDS exposures of market participants makes informed decisions about risk management difficult, a situation that becomes increasingly problematic

when a credit event occurs. A regulator also testified that because the CDS market was interconnected, the default of one major participant increased the market and operational risks faced by more distant financial market participants and impacted their financial health. The near-collapse of AIG illustrates the risk from large exposures to CDSs.

Finally, jump-to-default risk, as it relates to the CDS market, is the risk that the sudden onset of a credit event for the reference entity can create an abrupt change in a firm's CDS exposure. Such a credit event can result in large swings in the value of the CDS and the need to post large and increasing amounts of collateral and ultimately fund the settlement payment on the contract. The default of a reference entity could put capital strain on the CDS seller from increased collateral and payment obligations to settle the contract. For example, because CDSs generally are not funded at initiation, a CDS seller may not have provided sufficient collateral to cover the settlement obligations.

2 | CDSs CAN ALSO POSE A NUMBER OF OTHER RISKS AND CHALLENGES, INCLUDING LACK OF TRANSPARENCY, POTENTIAL FOR MANIPULATION, AND SPECULATION

Other risks and challenges from CDS include a lack of transparency in the CDS market, the potential for manipulation related to the use of CDS as a price discovery mechanism, and the use of CDS for speculative purposes. According to some regulators, market participants, and observers, limited transparency or disclosure of CDS market activity may have resulted in the overestimation of risk in the market. Such a lack of transparency may have compounded market uncertainty about participants' overall risk exposures, the concentration of exposures, and the market value of contracts. For example, some have noted that uncertainty around how bankruptcy of Lehman Brothers would affect market participants contributed to a deterioration

of market confidence. More specifically, according to some reports, up to USD 400 billion of CDSs could have been affected, but the Depository Trust and Clearing Corporation (DTCC) later stated that its trade registry contained USD 72 billion of CDS on Lehman Brothers, and this amount was reduced to about USD 21 billion in payments after bilateral netting. The actual number was reported to be even lower. Some market participants suggested that concerns about transparency were even more prevalent with customised CDS products because the contracts were not standardised and their prices were determined using estimates rather than prices from actual transactions.

Some suggested the potential existed for market participants to manipulate prices to profit in other markets that CDS prices might influence, such as the equity market, and that the lack of transparency could contribute to this risk. CDS price information is used by some market participants as an indicator of the market's perception about a company's financial health. Market participants use spreads on CDS contracts to gauge the financial health and creditworthiness of a firm. However, two regulators and an industry observer suggested that whether CDS prices accurately reflected creditworthiness was unclear because the market was largely unregulated and the quality of data is questionable in an opaque market. According to testimony by a Securities and Exchange Commission (SEC) official in late 2008, the lack of transparency in the CDS market also created the potential for fraud, in part because the reporting and disclosure of trade information to SEC was limited. More specifically, the official testified that a few CDS trades in a relatively low-volume or thin market could increase the price of the CDS, suggesting that an entity's debt was viewed by the market as weak. Because market participants may use CDS as one of the factors in valuing equities, this type of pricing could adversely impact a reference entity's share price. One market observer we spoke with offered the following hypothetical example: if the CDS price moves up and the equity price moves down, an investor could profit from holding a short position in the equity by buying protection in the CDS market. The SEC official testified that a mandatory system

of record keeping and reporting of all CDS trades to SEC should be used to guard against the threat of misinformation and fraud by making it easier to investigate these types of allegations. However, another regulator suggested that the price discovery role was not a unique role to CDS and that exchange-traded derivatives such as foreign exchange and interest rate derivatives also served a price discovery function.

Another challenge identified by regulators and market participants was the frequent use of CDS for speculative purposes, an issue that has raised some concerns among some regulators and industry observers. Some have suggested that the practice should be banned or in some way restricted. However, other regulators and market participants disagree and note that speculators in the CDS market provide liquidity to the market and facilitate hedging. Many of the concerns stem from uncovered or "naked" CDS positions or the use of CDS for speculative purposes when a party to a CDS contract does not own the underlying reference entity or obligation. Because uncovered CDS can be used to profit from price changes, some observers view their function as speculation rather than risk transfer or risk reduction. For example, one regulatory official stated that these transactions might create risks, because speculative users of CDS have different incentives than other market participants. In addition, one regulator stated that when participants used CDS for speculative purposes, there was no direct transfer or swap of risk. Instead, the transaction creates risk from which the participant aims to profit. Market participants also noted that the risks associated with CDS did not stem from their use for speculation but from a failure to manage the risks, particularly CDS of ABS (asset backed securities). Market participants and an observer also explained that a restriction on uncovered CDS would create a market bias in favor of protection buyers, because it is easier for them to hold a covered position. This bias could impact the liquidity of the market, because trading would be confined to those with an exposure to the referenced entity. Finally, market participants noted that firms used CDS to manage risks from many economic exposures in addition to risks such as counterparty credit exposures that arise from holding the underlying reference obligation.

3 | CDSs OVERSIGHT HIGHLIGHTS THE CHALLENGES OF AN OUTDATED REGULATORY SYSTEM

The current regulatory structure for CDSs and other OTC derivatives does not provide any one regulator with the authority over all market participants, making potential systemic risk hard to monitor and manage. In the United States, federal oversight of CDS trading is largely conducted through the banking regulators' safety and soundness oversight of the supervised banks that act as dealers in the market. Unlike equities or futures markets that are regulated by SEC and the Commodity Futures Trading Commission (CFTC) respectively, CDSs are not regulated broadly as financial products because SEC and CFTC lack authority to do so. Federal financial regulators, namely the banking regulators, generally monitor activity in the CDS market through information obtained from their supervised entities, but comprehensive and consistent data on the overall market have not been readily available.

Regulators have sought to address potential systemic threats arising from CDS activities mainly through collaborative efforts with other US and foreign supervisors and key market participants. However, the extent to which regulators routinely monitored the CDS activity of unregulated market participants is unclear. While US federal financial regulators do not have authority over CDS as a product, in the United Kingdom, the Financial Services Authority (FSA) has authority over most CDS products and can collect information on those products. Despite this broader authority, FSA has pursued most of its regulatory efforts in collaboration with US regulators.

Financial regulators and the industry have initiated several efforts to begin addressing some of the most important risks posed by CDS and similar products, particularly operational and counterparty credit risks. These efforts include improving the operational infrastructure of CDS markets, implementing a clearinghouse or central counterparty to clear CDS trades, and

establishing a central trade registry for CDSs. If implemented effectively and sustained, the recent initiatives could begin to address some of the risks related to the use of CDS. However, their effectiveness will likely be constrained by two factors. First, participation in a clearinghouse and central trade registry is generally voluntary. And second, the efforts would not include the more customised and highly structured CDSs that can include CDSs on complex reference entities that may pose significant risks to institutions and financial markets. A number of other reforms to the CDS market have surfaced but face challenges. These include mandatory clearing or restricting CDS trades. Finally, OTC derivatives that share some of the risks related to CDSs could benefit from similar efforts to mitigate their impact.

Financial regulators and market participants have recently taken steps to try to address risks posed by CDSs. The efforts have focused on three main areas: (1) operational and infrastructure improvements, (2) creation of a central trade repository, and (3) development of clearinghouses to clear CDS contracts. In September 2009, 15 major banks committed to clear most of their OTC trades through a clearinghouse.

The issues involving CDSs have illustrated the current system of regulation lacks broad authority to monitor, oversee, and reduce risks to the financial system that are posed by entities and products that are not fully regulated, such as unregulated subsidiaries of regulated institutions, and other non-bank financial institutions. The absence of such authority may be a limitation in identifying, monitoring, and managing potential risks related to concentrated CDS exposures taken by any market participant. The inability of the regulators to monitor activities across the market and take appropriate action to mitigate them has contributed to the current crisis and the regulators' inability to effectively address its fallout. Going forward, any regulator tasked with a systemwide focus would need broad authority to gather and disclose appropriate information, collaborate with other regulators on rule making, and take corrective action as necessary in the interest of overall financial market stability, regardless of the type of financial product or market participant.

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