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THE ROLE OF CREDIT DEFAULT SWAPS (CDS) IN THE GLOBAL FINANCIAL CRISIS

This article considers the essence of credit default swaps (CDS), as a new tool for hedging risks, market development of CDS contracts during 2001-2010, and the role of CDS in the global financial crisis.

Keywords: Credit default swaps (CDS), buyer of CDS, seller of CDS, spread, credit event, default, insurance contract, and mortgage-backed security.

В статті розглядається сутність кредитно-дефолтного свопу, як нового інструменту хеджування ризиків, розвиток ринку КДС, а також роль КДС у світовій фінансовій кризі.

Ключові слова: Кредитно-дефолтний своп (КДС), покупець КДС, продавець КДС, деривативи, спред, кредитний випадок, дефолт, страховий контракт, іпотечні цінні папери.

During the last few years, the credit derivatives market has grown significantly and is now an established derivative market. This market has given some investors a choice on how they should take exposure to the credit risk of a company – either via a credit derivative contract or by buying/selling the bonds of that company. The CDS contract (credit default swap contract) is the building block to many exotic credit derivative structured products and indices.

Firstly introduced in 1997 by JPMorgan, CDS have become the most common form of credit derivative, that were intended to remove risk from companies' balance sheets. The idea was to separate the default risk on loans from the loans themselves. The risk would be moved into an off-balance sheet vehicle. The product was called Bistro, otherwise known as broad index secured trust offering.

JP Morgan Chase with the help of a credit default swap has insured 300 loans granted by the bank blue chips (Ford, Wal-Mart, IBM, etc.) totaling \$ 9.7 billion. As a result JP Morgan Chase delegated credit risk to third parties and freed from the reserve fund hundreds of millions of dollars.

Sometimes described as “complex financial instruments”, credit default swaps are, in fact, the simplest of all credit derivatives.

A credit default swap (CDS) is a kind of insurance against credit risk. It is a privately negotiated bilateral contract between a protection buyer and a protection seller. The buyer of protection pays a fixed fee or premium to the seller of protection for a period of time and if certain pre-specified “credit event” occurs, the protection seller pays compensation to the protection buyer [1, p. 1].

Assume that there is a Company A, which has issued corporate bonds. Bank B bought the bonds from Company A and now receives regular coupon payments. The Bank wants to protect this position against the possibility that Company A will stop making interest and/or principal payments on the debt. Therefore, the Bank strike a bargain with the third party, for example, an

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insurance company, under which bank (CDS Buyer) regularly pays an insurance company a certain sum of money (premium). An insurance company, in turn, assumes all the risks associated with possible default of Company A on its debt obligations, in the example - its bonds (these bonds are called in the practice of CDS insurance object (Reference Issuer).

For market participants, the advantages of using credit derivatives over the same reference entity's cash assets can include the following:

- They can be tailor-made to meet the specific requirements of the entity buying the risk protection, as opposed to the liquidity or term of the underlying reference asset.
- They can be “sold short” without risk of liquidity or delivery squeeze, as it is a specific credit risk that is being traded. In the cash market, it is not possible to “sell short” a bank loan for example, but a credit derivative can be used to establish synthetically the economic effect of such a position.
- Because they theoretically isolate credit risk from other factors such as client relationships, funding considerations, and interest-rate risk, credit derivatives introduce a formal pricing mechanism to price credit issues only. This means a market is available in credit only, allowing more efficient pricing, and it becomes possible to model a term structure of credit rates.
- They are off-balance sheet instruments. For instance, bank loans are not particularly attractive investments for certain investors because of the administration required in managing and servicing a loan portfolio. An exposure to bank loans and their associated return, however, can be achieved using credit derivatives while simultaneously avoiding the administrative costs of actually owning the assets. Hence, credit derivatives allow investors access to specific credits while allowing banks access to further distribution for bank loan credit risk. [3, p. 3-4].

The rate of payments made per year by the buyer is known as the CDS spread. It is expressed in basis points per annum of the notional value of the contract (and, typically, paid quarterly for corporate credit default swaps or even semiannually.)

The premiums paid on CDS contracts generally follow set standards. These standards include the following:

- ü If the trade is effected today, the effective date of the protection is tomorrow, even if tomorrow is Saturday or bank holiday; this recognizes that companies can default on a nonbusiness day.

- ü The coupon payment dates are quarterly dates, based on the maturity date of the contract. For example, if maturity is December 20, 2009, the coupon dates are going to be March 20, June 20, September 20, and December 20.

- ü The first coupon is a short one (less than 3 months) if the trade date is more than 1 month from the closest coupon date; otherwise it is a long (more than 3 months) coupon [2, p. 9].

Assume the CDS contract with following information:

Nominal value of bond	\$ 10, 000, 000
Term	5 years
Reference Credit	Company's 5- year bond.
Credit event	The business day following occurrence of specified credit event.
Default payment	Nominal value of bond × [100 - price of bond after credit event]
Swap premium	3,35%

Suppose now, that a technical default on the Company's 5-year bond is occurred and its price now stands at \$28.

$$\text{Default payment} = \$10,000,000 \times [100\% - 28\%] = \$7,200,000$$

So, under the terms of the swap, the protection buyer delivers the bond to the seller, who pays out \$7.2 million to the buyer.

It is important to note that these spreads are not the same as the yield spreads of a corporate bond or government bond. The maturity period of a typical credit default swap varies from one year to ten years, with five years being the most common time frame.

A “credit event” can be:

- A bankruptcy of a company: the underlying corporate entity becomes insolvent or is unable to repay the debt;
- Failure to pay: the underlying corporate entity is unable to make the outstanding interest or principal payment;
- Debt restructuring: the underlying corporate entity negotiates changes in the terms of the debt obligations with its creditor to avoid default on existing debt. The changes may include postponement of payment, reduction in the principal or interest payable under the obligation, etc.;
- Obligation Acceleration or Obligation Default: the debt obligations of the issuer become due and payable before their initially scheduled maturity date as a result of default by the underlying corporate entity;
- Repudiation/Moratorium: The underlying corporate entity rejects or challenges the validity of the related debt obligation, in effect refusing to pay interest and principal [11, p. 61-62].

When default occurs there are two accepted settlement procedures or “protocols:” The first - physical settlement, which is the most widely used, and the second - cash settlement. In a physical settlement, the buyer of protection delivers the notional value of deliverable obligations of the reference entity to the protection seller in return for the notional amount paid in cash. In a cash settlement, the seller pays the buyer the face value of debt minus the recovery rate of the reference asset; this is also known as the loss given default or LGD. The recovery rate is calculated by either referencing dealer quotes or by observing market prices over some period after the default occurred. [2, p. 2-4]

The main difference between a physical settlement and cash settlement is that in a physical settlement the seller has remedy to the underlying corporate entity as well as the chance to take part in the workout procedure as the holder of the defaulted underlying credit asset.

Various market participants have different requirements, and so may have their own preferences with regard to the settlement mechanism. A protection seller may prefer physical settlement for particular reference assets if he believes that a higher recovery value for the asset can be gained by holding on to it and/or entering into the administration process. A protection buyer may have different interests. For instance, unless the protection buyer already holds the deliverable asset (in which case the transaction he has entered into is a classic hedge for an asset already owned), he may prefer cash settlement, if he has a negative view of the reference obligation and has used the CDS or other credit derivative to create a synthetic short bond position. Or the protection buyer may prefer physical settlement because he views the delivery option as carrying some value.

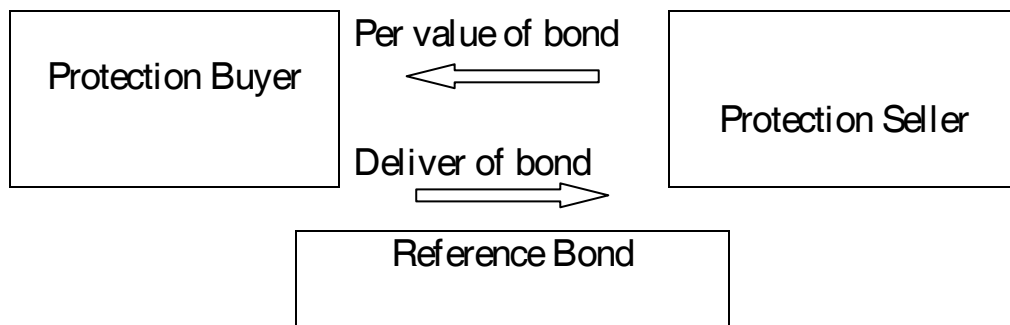
If no credit event occurs during the term of the swap, the protection buyer continues to pay the premium until maturity. In contrast, should a credit event occur at some point before the contract’s maturity, the protection seller owes a payment to the buyer of protection, thus insulating the buyer from a financial loss.

Below is a visual representation of this scenario.

Table 1:

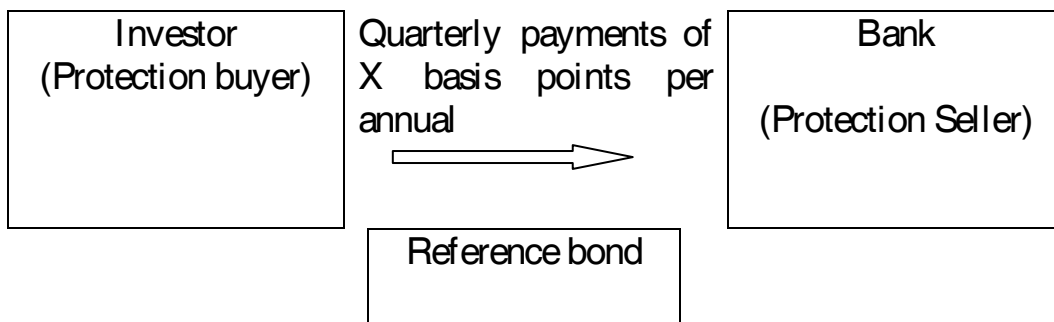
Model of CDS (default)

Table 2:



Model of CDS (no default)

CDS deals are structured over-the-counter products, as opposed to exchange-traded pro-



ducts. It means that transactions are conducted at any time by phone or in any other way. No standardized contract terms. There is no price transparency in the CDS Contracts. There is no transparency of positions on CDS (there is no single registry of transactions with CDS, hence, the degree of involvement in the CDS market for a particular investor knows only the investor). Regulators did not intervene in market activity.

The International Swaps and Derivatives Association (ISDA) compiled standard documentation governing the legal treatment of credit derivative contracts. This documentation specifies key items –maturity, premium, reference name, what constitutes a ‘credit event’, etc. – as well as technical details such as business calendars, legal jurisdiction or day-count convention. So, Credit default swaps are founded on the ISDA Master Agreement which defines the protection and obligation of the parties.

The CDS is similar to an insurance contract. However, the parallel between insurance contracts and credit default swaps does not hold in some important ways. Firstly, you do not have to hold the bonds to buy a credit default swap on that bond, whereas with an insurance contract, you typically have to have a direct economic exposure to obtain insurance. Secondly, the object of insurance can be absolutely any debt - from contract to supply goods to corporate or municipal bonds, bankers' acceptances, promissory notes, contract for a mortgage, as well as all derivatives debt, which are based on tranches of mortgage loans (CDO, MBS, etc.). And finally, the main difference between CDS and insurance policy is the unregulated status of the CDS: credit default swap contracts do trade over the counter, in contrast, insurance contracts (mostly) are not traded;

The tree main types of CDS are represented in the table bellow:

Table 3:

The tree main types of CDS [5]

The DTCC provides aggregate net notional data for single reference entities. These comp-

Single name	The reference entity is an individual corporation, bank, or government.
Index	CDS referring to multiple constituent entities in the index with each entity having an equal share of the notional amount. The degree of standardization is highest for these contracts.
Basket CDS	CDS with more than one reference entity (typically between three and one hundred names). Specific types include first-to-default CDS, full basket CDS, untranching basket and tranching basket known as a synthetic CDO.

rise the sum of net protection bought (or sold) across all counterparties (see Table 4).

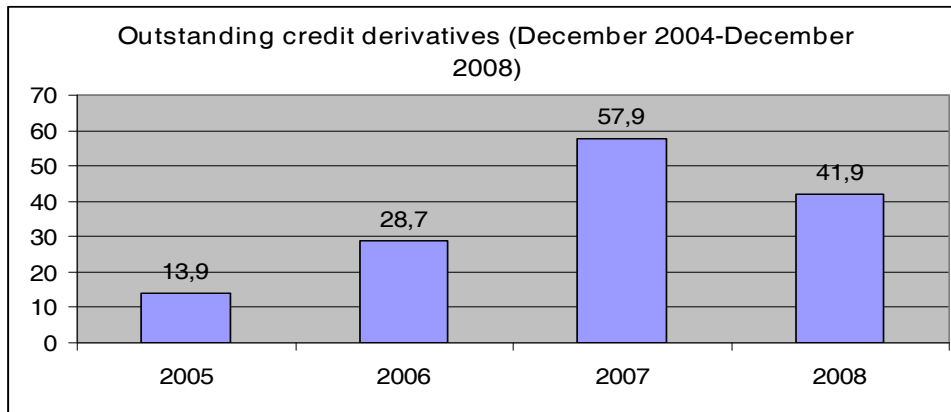
Table 4:

Actual risk exposure (net notional amounts before collateralization); December 2008 [5].

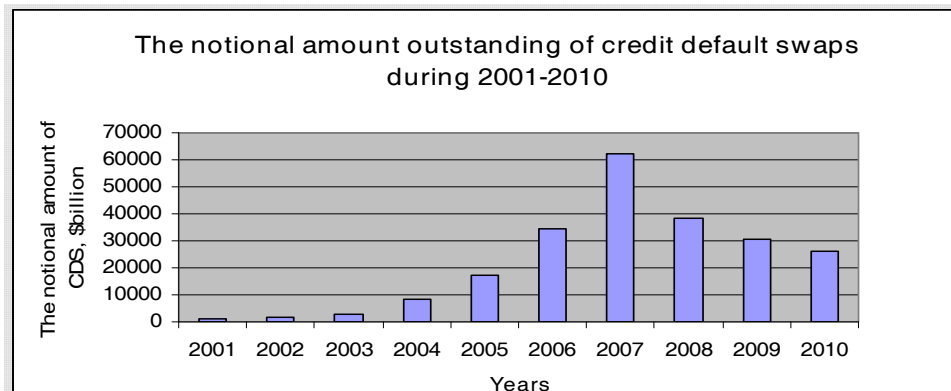
According to the market survey results that ISDA conducted the credit default market has

	Gross notional amounts	Net notional amounts	Ratio (net/gross)
Single-name CDS contracts	14,83	1,477	10%
CDS indices/CDS index tranches	14,328	1,276	9%

grown much faster than other derivative markets, and the gross notional amount of outstanding CDS protection bought and sold at the end of 2008 was seven times than of end-2004.



Picture 1: Outstanding credit derivatives (December 2004 - December 2008) [5].



Picture 2: The dynamics of CDS market from 2001 to 2010, represented by the following [6]:

At mid-year 2001 credit default swaps grew 45% to \$918.9 billion from the \$631.5 billion reported in June. Chairman of the Board of ISDA, Keith Bailey said that the credit derivative numbers show impressive growth during a difficult period; this is testimony to the value that these products bring to market participants in managing risk in times of volatility and uncertainty.

At 2002 credit derivatives, which consist of credit default swaps, baskets and portfolio transactions, grew 40.17% since the end of June 2002; among firms responding to both surveys, outstanding volumes grew 35.23%. As of the end of June 2002 credit derivatives were \$1.6 trillion.

At 2003 credit derivatives continued their strong growth at 25 per cent in the first six months of 2003 to \$2.69 trillion, a similar rate of growth to the previous six months.

The notional amount outstanding of credit default swaps at 2004 grew by almost 55 per cent in the second half of 2004 from \$5.44 trillion to \$8.42 trillion. This represents an annual growth rate of 123%.

At 2005 Notional amount of credit default swaps grew by almost 48% during the first six months of the year to \$12.43 trillion from \$8.42 trillion. This represents a year-on-year growth rate of 128% from \$5.44 trillion at mid-year 2004; 86 firms provided credit default swap data.

In the second half of 2006 the notional amount outstanding of credit default swaps (CDS) grew 32 percent, rising from \$26.0 trillion at June 30, 2006 to \$34.4 trillion at December 31, 2006. This compares with 52 percent growth during the first half of 2006. CDS notional growth for the whole of 2006 was 101 percent, compared with 103 percent during 2005. The survey monitors credit default swaps on single-names, baskets and portfolios of credits and index trades.

In the second half of 2007 the notional amount outstanding of credit default swaps (CDS) grew 37 percent to \$62.2. CDS notional growth was 81 percent for all of 2007.

The CDS market quickly grew from \$180 billion in notional value in 1997 to almost \$55 trillion by June 2008. Bankers seized upon CDS trading as a way to earn easy premiums, free up capital and shed risk from their books. As a general rule, CDS sellers don't post money up front when they enter a contract; they only pony up if the credit defaults or goes bankrupt. When that happens, the cost of coverage can jump exponentially — what's known as "jump to default." Still, financial firms can hedge this risk by buying CDS protection even as they sell protection to someone else. That way, when a bond defaults, they get money back as they pay out, effectively netting their loss.

By 2007, with credit risk priced at historical lows, many financial firms were selling buckets of CDSs as insurance to cover exotic financial instruments linked to subprime mortgages.

At 2008 year-end the notional amount outstanding of credit default swaps (CDS) was \$38.6 trillion, down 29 percent from \$54.6 trillion at mid-year 2008. CDS notional outstanding for the whole of 2008 was down 38 percent from \$62.2 trillion at year-end 2007. The \$38.6 trillion notional amount was approximately evenly divided between bought and sold protection: bought protection notional amount was \$19.5 trillion and sold protection was \$19.1 trillion, with a net bought notional amount of \$400 billion.

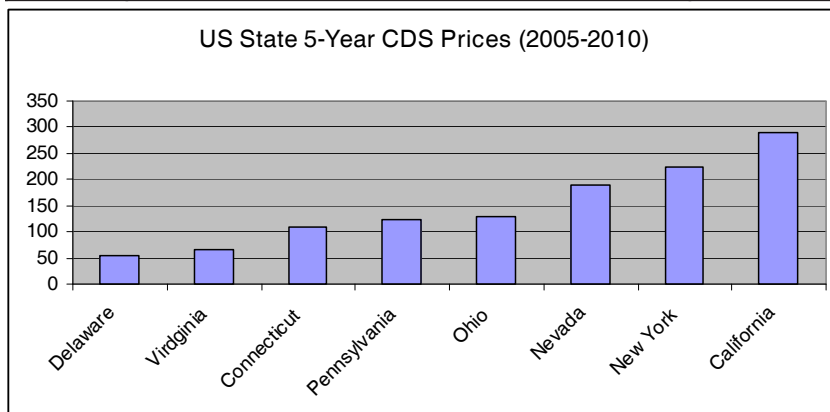
The notional amount outstanding of credit default swaps (CDS) was \$30.4 trillion at year-end 2009, down 3 percent from \$31.2 trillion at mid-year 2009. CDS notional outstanding for the whole of 2009 was down 21 percent from \$38.6 trillion at year-end 2008. The \$30.4 trillion notional amount was approximately evenly divided between bought and sold protection: bought protection notional amount was approximately \$15.4 trillion and sold protection was about \$15.0 trillion, with a net bought notional amount of \$451.3 billion. Seventy-five firms provided data on credit default swaps.

And finally, at mid-year 2010, the notional amount outstanding of credit default swaps (CDS) was \$26.3 trillion, a decrease of 13.7 percent from \$30.4 trillion at year-end 2009. CDS notional outstanding for the past twelve months was down 15.9 percent from \$38.6 trillion at mid-year 2009. As in past surveys, the \$26.3 trillion notional amount was approximately evenly divided between bought and sold protection: bought protection notional amount was approxi-

mately \$13.3 trillion and sold protection was about \$13.0 trillion, with a net bought notional amount of \$359.0 billion. Sixty-two firms provided data on credit default swaps. Credit default swaps are 5.6 percent of the total of all derivatives reported to the ISDA Market Survey [6].

Table 4:
The top dozen entities in terms of increases and decreases
in percentage terms in the number of outstanding CDS contracts, 2008.
 (The list is filtered down to those with at least 1,000 pre-existing outstanding contracts.) [12].

Rank	Decreases	Increases
1	Bank of America Corporation	VNU Group B.V.
2	Sony Corporation	Cadbury Holdings Limited
3	Bank of Ireland	Endesa, S.A.
4	Standard Pacific Corp.	Kingdom of Spain
5	ENEL S.P.A.	Rio Tinto PLC
6	Societe Air France	Banca Italease S.P.A.
7	Fresenius SE	Citigroup INC
8	Toyota Motor Credit	Canadian National Railway
9	The Sherwin-Williams Company	Centerpoint Energy, INC
10	Wendy's International	AT&T INC
11	Wellpoint, INC	Marathon Oil Corporation
12	Southwest Airlines Co.	Morgan Stanley



According to the Global Sovereign Debt Credit Risk Report the top ten most risky sovereigns are [8]:

Picture 3: Let us take a closer look at CDSs prices in some states of Amerika [5]

Position	Country	5-Year CDS MID (bps)
1	Greece	1026,5
2	Venezuela	1009,6
3	Ireland	619,2
4	Portugal	497,3
5	Argentina	602,4
6	Ukraine	509,5
7	Spain	347,7
8	Dubai	417,6
9	Hungary	378
10	Iraq	366,1

And the top ten least risky countries are:

Position	Country	5-Year CDS MID (bps)
1	Norway	23,2
2	Finland	33,6
3	Sweden	34,3
4	Switzerland	40,7
5	USA	41,5
6	Hong Kong	44,7
7	Denmark	45,9
8	Australia	50,1
9	Germany	59,1
10	Saudi Arabia	75,4

CDS contracts are commonly regarded as a zero-sum game within the financial system, as there is always a buyer for each seller of CDS contracts, as with all other OTC derivative contracts. The financial turmoil has shown, however, that both buyers and sellers of CDSs may suffer losses if counterparty risks materialize.

Indeed, with CDSs, both parties are exposed to credit risk derived from the counterparty (or “counterparty risk”), which reflects the potential for the counterparty to fail to meet its payment obligations. In other words, counterparty risk reflects the risk of being forced to replace positions in the market, were a counterparty to default. The replacement cost is of the same magnitude for the two counterparties concerned, but with a different sign.

For instance, if there is a deterioration in the creditworthiness of the underlying reference entity (i.e. spreads widen), a trade will have a positive value for the protection buyer (i.e. that buyer is “in the money”), as the protection it already has is now worth more. This positive value is the additional cost of conducting exactly the same trade with the original spread. Thus, a value of USD 10 billion would mean that it was necessary for a buyer to pay an additional USD 10 million to persuade a seller to take on the trade at the lower spread. Equally, a seller of CDS protection is “out of the money” by USD 10 million, as that party would now require USD 10 million to take on the original trade at the lower spread. If the seller were to then default, the buyer would be entitled to claim from the seller the cost of replacing the trade: USD 10 million. Equally, if the buyer were to default, the seller would still be required to pay USD 10 million to the buyer. This requirement to pay even if the money is owed to the defaulting party is a legally binding obligation under the ISDA Master Agreement.

Dealers hedge market risk exposures resulting from a CDS by means of offsetting transactions with another party. If the second party is also a dealer undertaking additional hedging transactions, a chain of linked exposures will arise in which the market participants know their direct counterparties, but not the parties further along the chain. A number of structural features in the CDS market have helped to transform counterparty risk into systemic risk. First, the majority of the CDS market remains concentrated in a small group of dealers. Second, the case of Lehman Brothers has shown that the interconnected nature of this dealer-based market can result in large trade replacement costs for market participants in the event of dealer failures. Third, as regards the euro area banking sector, euro area banks appear to have become net sellers of standard single-name and index CDS contracts (although for limited amounts), which would imply exposure to market risk if there is a general increase in CDS spreads – for instance in the event of

a dealer failing within the CDS market. Given the limited net values, this could change in the coming months, although the net position of euro area banks remained negative at the end of June 2009. In addition to the shift from those institutions' historically net positive positions (i.e. as net purchasers), it should also be noted that banks seem to have been net sellers of protection for sovereign CDSs, which may in some cases constitute wrong-way risk. Finally, the low levels of liquidity resulting from the crisis and the current high levels of concentration in the market have both increased trade replacement costs and resulted in significant bid-ask spreads for market participants, particularly for non-dealers.

In the CDS market, as in other OTC markets, the major banks (i.e. dealers) trade actively among themselves and account for a large share of the daily turnover in these markets. Indeed, the CDS market is concentrated around a few large players. In 2008 the five largest CDS dealers were JPMorgan, the Goldman Sachs Group, Morgan Stanley, Deutsche Bank and the Barclays Group. This ranking has been calculated on the basis of public filings and seems to be comparable to that listed in Fitch's 2009 derivative survey [5, p. 21]. A recent survey of U.S firms by Fitch also indicate that 96% of credit derivatives exposures at the end of Q1 2009 of one hundred surveyed firms was concentrated to JP Morgan, Goldman Sachs, Citigroup, and Morgan Stanley and Bank of America.

According to DTCC data, the five largest CDS dealers were counterparties to almost half of the total outstanding notional amounts as at 17 April 2009 and the ten largest CDS dealers were counterparties to 72% of the trades.

Table 5:
Top risks or vulnerabilities related to the CDS market [5, p. 21].

Large banks (Notional amounts of CDSs bought and sold exceeding €500 billion.)	Medium sized banks (Notional amounts of CDSs bought and sold exceeding €200 billion.)	Small banks
Counterparty risk		Counterparty risk
	Reduction of liquidity	
		High correlation between underlying and counterparty

As regards BIS data, the market share of major players seems to be larger in Europe than it is for the total global market. This, however, is explained by the difference between the BIS and DTCC data in terms of scope.

Table 6:
Top five CDS dealers [5, p. 21].

Institution	Bought		Sold	
	Notional	Gross Market Value	Notional	Gross Market Value
JPMorgan	3,834	514	3,668	479
Goldman Sachs Group	3,43	N/A	3,17	392
Morgan Stanley	3,2	432	3,093	399
Deutsche Bank	6,191	411	N/A	363
Barclays Group	6,033	269	N/A	248

The current high levels of concentration in the CDS market probably exceed those observed before the crisis, as the market has seen the exits of the independent CDS dealers Bear Stearns, Lehman Brothers and Merrill Lynch. This has also coincided with the reduction of proprietary trading activities by several European banks and reduced amounts of CDSs sold by hedge funds and exits from the market by large CDS sellers such as AIG, the monolines and the CDPCs.

Market participants have indicated that a number of hedge funds were increasingly pursuing credit-oriented strategies in the run up to the financial crisis, and that these players accounted for significant daily CDS trading volumes. This was also the finding of a Fitch survey in 2006. The level of CDS trading activity has, however, fallen sharply in conjunction with financial deleveraging and fund closures. A record number of hedge funds were levered less than once during the months of September and October 2008 in the face of investor redemption requests, losses, aggressive deleveraging and – potentially – reduced credit lines extended by prime brokers and increased margin calls. This, in combination with bilateral collateral management procedures, may have prevented considerable concentration risk from materializing within the hedge fund community in relation to the CDS market. In the absence of detailed CDS-specific corporate disclosures by institutions, it is not possible to

Credit default swaps often referred to as the main cause of the global financial crisis. Many assert the fall of Bear Stearns, the bankruptcy of Lehman Brothers, the government bailout of AIG, and the registration of several major broker/dealers as bank holding companies were in part a result of their activities in the CDS market.

The main characteristic feature of these instruments is their unregulated status, which allows to sell and to buy CDS contracts privately (over the counter) an unlimited number of times.

CDS market has doubled annually and reached in 2000 \$100 billion. This figure is quite impressive, but it is logical, because it reflects the objective benefits created by CDS in the market of corporate loans and debt.

During the period of rapid development of the mortgage market in the U.S., key players: federal agencies, banks, mortgage companies and other financial and credit institutions were guided by a strong desire to cash in on a booming market. A significant development of the mortgage market made a mortgage accessible to every American, even with a bad credit history. To transfer risk of a “bad loans” bank have used financial innovations, namely securitization of debts, CDO, MBS and CDS.

Qualitative change in CDS contracts volume was associated with a connection to the CDS market the whole mortgage sector – from the simplest mortgage credits to the complex credit derivatives such as CDO. In addition, home prices, during last years went only in one direction (up), as a result almost all were engaged in selling and buying CDS: the insurance companies, investment banks, mutual and pension funds, hedgers and just speculators. This concentration reached a maximum with American International Group (AIG). On September 30th 2008, the aggregate net notional amount of credit derivatives sold by AIG was USD 372 billion [7, p. 36]. This staggering amount was almost double the aggregate net notional amount sold by all other major dealers combined at the end of October 2008. AIG made two cardinal errors. First, it was long CDS exposure — a whopping \$372 billion worth — meaning that it hadn't hedged the protection it had sold to firms that had piled into toxic subprime-mortgage-related debt. Second, it didn't reserve capital to cover that exposure if something went wrong. When Goldman Sachs and others came knocking for big margin payouts to cover spiraling losses. AIG Company needed not just more money than was available for covering its debts, but even more than worth all of its liquid assets. As a result, AIG's share prices had fallen over 95% to just \$1.25 by September

16, 2008, from a 52-week high of \$70.13. If not for a \$180 billion bailout by the U.S. government, AIG would have collapsed beneath its enormous CDS exposure, with potentially dire consequences for the global economy. The company reported over \$13.2 billion in losses in the first six months of the year. These high levels of concentration have raised legitimate concern among regulators about counterparty risk in the CDS market: in such a situation, the default of a major dealer may have a large impact on the rest of the market.

In 2008 the turnover of credit-default swaps accounted for about \$ 62 trillion, surpassing the volume of world GDP of \$ 55 trillion [6].

Credit default swaps have been repeatedly blamed for fomenting financial instability and generating systemic risk.

Nowadays, the most controversial question is: whether CDS is an effective tool in a macroeconomic sense, or is still speculative, that should be prohibited?

CDS were criticized from the very beginning, when they were introduced. Martin Mayer considered these contracts as a major source of the almost unlimited leverage that brought the world financial system to the brink of disaster last fall. Warren Buffett described these instruments as a "weapons of mass destruction," time bombs that threaten the economic system."

These ideas are supported by the following facts:

- Originally conceived as a means for banks to reduce their credit exposure to large corporate clients, CDSs quickly became instruments of speculation for pension funds, insurers, companies and especially hedge funds;
- Unregulated status of CDS;
- CDS deals are structured over-the-counter products, as opposed to exchange-traded products. It means that transactions are conducted at any time by phone or in any other way;
- No standardized contract terms;
- No price transparency in the CDS contracts;
- No transparency of positions on CDS;
- No serious guarantees of solvency and adequate reserve funds of companies, which issued CDS. A repeated sale and resale of CDS created a situation where the buyer swap elementary did not know from whom to receive money for the default object of insurance;
- The CDSs market is highly concentrated in the hands of small group of dealers, a dozen as of end 2009. The 10 largest dealers account for a significant portion of gross notional trading volume.

However, there is another opposite opinion, that CDSs are an important tool for measuring and diversifying credit risk and these contracts under no circumstances should not be prohibited. According to Alan Greenspan, the widespread and equitable distribution of risks in the economy is achieved through the use of new financial instruments, including CDS.

So, I completely share the second point of view. In my opinion, the negative impact of CDS contracts, first of all, is connected with a lack of government regulation and the lack of transparency of these transactions. The global financial crisis has shown that the role of swaps in this crisis was substantial, however, it is necessary to emphasize, that the danger of using these contracts is not connected with the essence of this instruments. The huge amount of CDS contracts in the market is the result of unregulated status, systemic risk, a chain of bankruptcies of major financial institutions is the result of irrational policy of management of these institutions. Before CDS were introduced, banks have only one way to protect themselves from credit risk - to form a reserve. The problem is that the more loans the bank grants, the more money the bank should reserve in special funds in case of default on payments. Ideally, banks would like to keep the loans only in terms of interest income, but the risks of these loans banks would like to transfer to someone else.

Exactly with the help of CDSs, the buyer can separate the credit risk from the loan interest, to unfreeze money in reserve funds, insure the loans cheaper than with the help of traditional insurance.

For making market of CDS efficient and good-working, a lot of affords should be undertaken. Some of them are:

- Creating a system of modern and adequate regulation. In particular the creation of central clearing centers, in order to increase liquidity and transparency of the market for credit default swaps. A clearinghouse (or central counterparty) acts as the buyer to every seller and seller to every buyer of protection, thereby isolating each participant from the default of other participants;

AIG became the sign for why the OTC derivatives market needed to be more closely regulated. Meanwhile, Lehman Brothers, which did collapse, showed how clearinghouses could be part of the solution. On September 15, 2008, the morning that Lehman filed for bankruptcy, LCH.Clearnet woke up with \$9 trillion in interest rate swaps from Lehman — trades it was able to unwind at no cost to itself.

- To increase capital requirements for non-centrally cleared CDSs.
- Standardize counterparty requirements. Right now each bank makes up their own rules which causes annoyance to clients and creates an environmental where the (with the weakest posting requirements) is really the loser (most at risk);
- Listing and trading of certain standardized high-volume CDS, indexes, or single names on exchanges. Exchange trading would bring more price discovery, increased liquidity, and increased transparency to CDS transactions;
- Require the exchange to report information on the exposures of each counterparty to regulatory organizations;
- To improve netting capabilities. To use clearing rules to other standardized types of derivatives beyond CDSs;
- Confirmation of the solvency of both parties (buyers and sellers of CDS). Using standardized trading rules of stock exchanges, making a certain amount to the account in order to create protection fund against default;
- Publish real time market data. This transparency will increase liquidity which is greatly needed right now. It will also make it easier for anyone involved to correctly market-to-market positions, something which is not done consistently yet.

Following all of these recommendations, CDS market can be really efficiently working market and prevent – rather than produce – future global financial shocks.

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