The Reaction of Credit Default Swap Prices to Corporate Dividend Reductions[1]

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ABSTRACT

Our paper explores the reaction of a credit default swap to a material corporate even, i.e. the announcement of a planned reduction in a corporate dividend payment. The first section, CDS Features, defines what credit default swaps are, who uses them, and how they work. The second section, Recent Events in the CDS Market, describes the recent history of this financial contract. The third section of this study focuses on changes in corporate dividend policy, and their effect on firms' outstanding CDS prices . Last is an event study to show empirically what happens to the cost of insuring a firm's debt at different maturities before and after a dividend cut. This study shows empirically whether or not the CDS market leads or lags the announcement of a dividend cut. Since the rapidity of the movement will be monitored, our research is also a test of the efficient market hypothesis.

CDS FEATURES

With domestic financial markets recently in turmoil and disarray, some blame complex financial derivatives such as credit default swaps (Land, 2008). Some financial firms that have had large exposure to these over-the-counter (OTC) derivatives have experienced severe adverse price movement and financial distress. Investors, firms, and regulators have struggled to prevent these derivatives from further hurting the broader economy. What started as a seemingly straight-forward way to reduce risk or increase cash flow has become an instrument of danger to modern corporate finance (Duffie, 2008; Dickinson, 2009).

A credit default swap (CDS) is a derivative contract whose value negatively depends on that of an underlying bond or loan. The buyer of the CDS makes a series of interest payments to the seller and upon a contractually defined credit event, i.e., a default, the seller swaps to the buyer a payment to make them whole. A credit event may include bankruptcy, failure to make a principal payment or an obligation default. An investor does not even need to own a bond in order to purchase a credit default swap on it (Houweling and Vorst, 2005). Therefore a CDS is a hedge against any possible losses due to uncertain defaults. A CDS can also transfer risk to a third party, much like securitization transfers risk. By providing such useful features the CDS market has grown rapidly and almost doubled every year from 2001 to 2007, with notional outstanding value of $54.6 trillion by the second quarter of 2008. By comparison this aggregate CDS principal was larger than both the world GDP and the value of all the stocks on the New York Stock Exchange at the time (Varchaver and Benner, 2008). Credit research from HSBC's European Credit Strategy estimates that as of November 7, 2008 the largest net CDS exposures are on sovereignties. Italy, Spain, and Brazil hold the greatest exposure, netting a combined $42.9 billion outstanding. Financial firms have the next greatest exposures, with GE Capital, Deutsche Bank, and Morgan Stanley netting $28.2 Billion combined.

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One major shortcoming of the CDS market is its natural lack of transparency and liquidity since these contracts are not sold by broker-dealers who are participant-members of continuous auction exchanges. Rather, they are sold at a dealer's discretion in unorganized market-making activity. Thus no public trade information on prices of CDS contracts and intraday prices are directly available to investors, or CDS data are available only through certain secure databases. Therefore, the opportunity of general investors to react to the pricing of these securities is severely limited. While transparency in the market may evolve with exchange trading, however, the elimination of OTC trading would prevent the customization of these contracts (Dickinson, 2009). Since existing CDS contracts may contain unique definitions as what defines a credit event, they would be impossible to trade on an exchange that requires standardized contracts and a continuous auction format.

Dickinson speculates that a debt decoupling attribute of a CDS helps create systemic risk in the financial sector, an unintended consequence that puts the entire financial system at risk. This splitting separates the economic interest of a firm's creditors from their control rights and creates systemic risk from moral hazard and negative economic interest. Most apparent in the banking industry, the CDS market decreases the value of banker's due diligence for their corporate clients when the cost of the CDS, i.e. the premium, is less than the cost to perform due diligence, i.e. credit analysis on the borrower. Collateral requirements may become the only true gauge on a firm's repayment ability. This creates an adverse situation for other stakeholders in the credited firm, since this repayment ability may be a pretense. More speculative banking practices and all around poorer investments are produced due to this occurrence.

The other creation of systemic risk through the debt decoupling of the CDS market is that of a negative economic interest. This more extreme case occurs when the value of CDS insurance on a creditor's debt is greater than the value of that creditor's debt ownership. Similar to a short sale, the third-party CDS owner would benefit if a credit event occurred. This becomes a threat to the CDS seller if the third-party undertakes aggressive, manipulative tactics. This may include rumor mongering, which caused an up-roar among key Wall Street CEO's during the summer of 2008 when short sellers seemed to dominate the equity markets (Lang, 2008). With the interconnectedness of the bond and equity markets, these manipulative rumors could send the credited firm's equity into free-fall, causing their CDS premium to jump. The potential for a conflict of interest becomes too high throughout the financial sector.

An asset bubble is possible when expansive monetary policy excessively lowers interest rates and reduces market-wide opportunity rates of return. Easy credit standards increase capital pools for investors to use to purchase various asset classes (Barlevy, 2007). Once rates increase, assets may be sold off rapidly for liquidity, sending the price of those assets down. Easing of credit would presumably reduce perceived likelihood of default and push CDS prices down, potentially creating a bubble. However, a subsequent asset price implosion should not theoretically collapse the financial system if sufficient capital requirements are required. Collateral owed by the CDS seller that is adjusted on a daily basis may not stop the diminishing asset prices, but should at least ease the pop at the height of an asset boom.

Another important contrast between other financial assets and CDS prices is their relationship to informationally efficient asset pricing. Houweling and Vorst (2003) point that, omitting AA and BB bonds, quotes for CDS premium for all other ratings roughly follow a U-shape pattern over time and around the middle of the sample period the average premium remains lower than at the start and end dates. Any pricing pattern is not totally random, in contrast to the random price movement of an informationally efficient market. These CDS premia do not conform to an efficient market even though CDSs trade actively. On the contrary, this CDS price pattern seems more defined. To continue to diversify and take advantage of this pattern, an investor may purchase a portfolio of swaps with similar or equal maturities. The more volatile swaps could be diversified away to try and attain this U-Shape pattern.

Callen, Livnat, and Segal (2008) show how quarterly earnings are inversely related to CDS spreads as a decreasing function of their maturities. Their evidence shows that quarterly earnings do not convey enough information about a firm's potential for default (or other credit event) in the long term. The one-year maturity CDS was the only contract to move significantly due to quarterly earnings announcements. This contravenes common financial intuition about default probability and financial distress, since the longer the firm operates, the more potential there is for a credit event. Thus CDS with longer term maturities should be more price sensitive to a negative corporate event than CDS with a shorter maturity. Financial distress may be evaluated after many quarters of suffering losses. The CDS market does not price this potentiality for the long term.

RECENT EVENTS IN THE CDS MARKET

A major problem with the CDS market in recent months has been the amount of capital needed to pay for the triggered swaps. The sellers of these derivatives were clever to market and classify them as swap contracts instead of insurance contracts. Since derivatives contracts are highly deregulated by the United States government, due to legislation such as the Commodity Futures Modernization Act of 2000, there was no required capital needed to sell these swaps. This is in contrast to insurance contracts, which require an excess amount of capital in the event that the insurance is needed. For example, AIG, the nation's biggest insurer, and until recently, a component of the Dow Jones Industrial Average, was overexposed to these contracts, leading to a controversial and highly expensive bailout by the government (Ng, September 15, 2008).

In 2008, the U.S. Treasury bailout of Fannie Mae and Freddie Mac lead to questions of what would happen to the credit default swaps that they had issued. Coupled with the bankruptcy of Lehman Brothers, a huge dealer of these contracts, this exacerbated the crisis of confidence in the credit markets, leading to an immense ripple effect. Massive write-downs in the accounting books of large financial institutions worsened balance sheets. To add to this, credit default swaps tied to both of the Government Sponsored Entities were traded in popular CDS indices. Index funds pegged to these indices were popular among dealers, hedge funds, mutual funds, and banks (Ng, 2008).

Only a few years ago, the market for these credit derivatives was limited. However, the bond market for the majority of the past decade has generally produced lower yields. Investors reached for higher yields in products that sounded less risky than equities, paving the way for the popularity of structured debt products. The need to hedge such investments lead to greater demand of credit default swaps (Varchaver and Benner, 2008). Now, the huge exposure to this market by investors everywhere has caused equity traders to closely follow their spreads. Correlation between stock volatility and CDS spreads has been a major concern to these traders as this crisis of confidence continues. As stated earlier, CDS exposure can be compared to short interest positions by these equity traders. Many investors gauge short positions, where firms bet against a stock, taken by sophisticated investors, or by traders in round-lots. Recently, there has been a huge outcry by many on Wall Street about short positions based on rumor-mongering, where false gossip about a stock starts a massive chain of short selling throughout the investment community. Without an uptick rule or a ban on shorting certain stocks, this can drive out most equity holders. If a stock is shorted enough, its CDS spreads could rise rapidly, based on fear of the firm's inability to pay off its debts. Similarly, a high CDS spread could cause huge short sales on a stock based on the fear that the firm may not be able to pay its debt. These two markets could move hand in hand.

An example of this inverse relationship between a firm's equity price and the price for insuring their debt comes from Lehman Brothers data. CDS spreads move in the opposite direction of their stock price, showing a modern link between fixed income products and equities. The data in Table 1 clearly show the inverse relationship between a firm's equity return and the price of the credit default swaps on their debt. The sharp decline in Lehman's share price in August of 2007 was associated a more than

doubled CDS price. The correlation coefficient of the change in the equity price and CDS price is -.667. A simple linear regression of this relationship produces a statistically significant beta at the 1% level.

Today's crisis of confidence ultimately led to market for CDSs tied to financial firms. Dealers simply did not want to take the risk of selling these swaps when many debt defaults seemed likely. Meanwhile, investors looked for swap exposure on financial institutions' debt that plunged in priced by this crisis. For instance, around September 18, 2008, CDS contracts for Morgan Stanley's debt traded for roughly $900,000 a year for every $10 million of debt, or 900 basis points. This was triple the price range of only three weeks previously (Ng, September 19, 2008).

Table 1
Inverse CDS-Equity Relationship

Date	LEH 5 YR CDS	CDS Price Change	Equity Price	Equity Price Change
Apr-07	40		70.18	
May-07	40	0.00%	75.12	7.04%
Jun-07	40	0.00%	74.85	-0.36%
Jul-07	30	-25.00%	75.80	1.27%
Aug-07	80	166.67%	61.00	-19.53%
Sep-07	110	37.50%	54.80	-10.16%
Oct-07	60	-45.45%	61.42	12.08%
Nov-07	100	66.67%	61.08	-0.55%
Dec-07	120	20.00%	62.07	1.62%
Jan-08	120	0.00%	65.30	5.20%
Feb-08	150	25.00%	64.32	-1.50%
Mar-08	210	40.00%	50.30	-21.80%
Apr-08	260	23.81%	40.94	-18.61%
Correlation Coefficient	-.667			
Regression Results of $\%\Delta CDS = \alpha + \beta * \%\Delta EQ$				
(T statistic in parens)				
Alpha	Beta	R-Squared	F Statistic	
0.1366	-3.2066**	.4444	8.0011**	
(1.066)	(-2.828)			

Ultimately federal regulators have had to address this troubled market. An auction was held on Friday, October 10, 2008, to identify a market price for CDS contracts on Lehman Brothers debt. Many parties that sold these derivatives, including banks, hedge funds, and other financial firms may end up paying over 91 cents on the dollar, an amount much greater than previously thought. Over 350 companies traded in Lehman CDSs, including AIG, the nation's biggest insurer (Ng, Barrett and Bunge, 2008). AIG's exposure to these instruments was a key reason why they were downgraded by credit agencies, spurring a need to raise capital quickly, and eventually being bailed out by the government.

Margin requirements have also gotten stricter recently for CDS investors. Many investors who have large exposure to the swaps have had to post 11% margin in the past. This requirement has risen to 20.9%, almost two times as much Ng, 2008). This rule, which has been expected recently by many analysts, comes during the start of a massive wave of regulation in the financial markets. Wall Street

investment banks excess leveraging has caused massive wounds in the overall economy as many of these institutions borrowed thirty to forty times their equity. As financial institutions begin to deleverage, these margin requirements seem a necessary step in providing transparency, and limiting.

This problem can be seen on a global level as well. With financial turmoil spreading across the globe after many years of relative economic global prosperity, the United States and Europe seem to be on the same page. The European Union's chief for internal markets has stated that a central clearinghouse is needed to mop up these toxic derivatives. The Federal Reserve has also been encouraging dealers to find ways of clearing these assets. One proposition by the dealers was to request the use of the Chicago Clearing Corporation, their existing clearing counterparty. Another suggestion is a partnership between the Chicago Mercantile Exchange and the large hedge fund Citadel (Ng, October 10, 2008). The final decision will need to include a clearinghouse that has enough capital and operational support to ensure an efficient transfer of these derivatives.

At a more fundamental level, financial firms have discovered that many of their models used in valuing these derivatives need to be changed. First off, there has been a lack of research done for fixed income products in the area of portfolio theory. In this type of analysis, the distribution of the possible returns needs to be taken into account, rather than merely the expected return of one asset (Altman and Saunders, 1998). Another main component to this analysis is the probability of default of the lender. This can be transparent in a credit risk score, which had been a relaxed practice in recent times before this economic collapse. While credit is growing tighter and tighter, there will be a trend back to stricter credit rating enforcement, mirroring more fundamental financial practices. The relationship between default rates and portfolio return will be a useful measurement to assess these credit instruments. This should produce more conservative portfolios in the long run.

Overall, the problem with the credit default swap market in corporate finance has been the lack of transparency. Liabilities were sold in different markets without buyers engaging in proper due diligence. Many derivatives, such as collateralized debt obligations and credit default swaps will need to be treated differently by financial institutions in the future. An inherent problem with models used to value CDS contracts were that they could not take into account the irrational behavior of people. This irrational business behavior could be found in banks all over the country in pushing subprime mortgages due to a commission benefit. With these fundamental mistakes with loans made on Main Street, no formulas or models justify Wall Street CDS valuation.

For the investment community to gain more transparency for CDS, investors must make more key insights into the movement of the market. One of which is the announcement of a dividend cut. Observing what CDS premia do before and after a dividend cut can prove to be a valuable tool for the investment community. Obviously, the volatility in today's market has more to do with the change in CDS premia than the actual dividend policy employed by the financial firms. The next section will look at how a dividend cut affects the CDS premia of three financial firms.

DIVIDEND CUT STUDY OF CDS PRICES

We study the reaction of credit default swap prices to the announcement of a corporate dividend reduction. Because much of the recent financial crisis was confined to financial markets and institutions, we confined our data search to any firm whose SIC code varied between 6000 and 6500. Initially from the Research Insight data base we identified 175 financial institutions that had cut their common stock dividend between 1989 and 2007. But, given the limitations of the private CDS database we were only able to acquire full equity market and CDS market price information on only 7 firms and 9 dividend reduction events.

Our hypotheses rely on the typical reaction of share prices to a firm's announcement of their intention to cut or eliminate their cash dividend. In a classic study Asquith and Mulllins (1983) state "dividends can be used as a simple, comprehensive signal of a management's interpretation of the firm's recent performance and its future prospects." Typically equity investors react positively to dividend initiations and negatively to dividend omissions (Michaely, Thaler, and Womack, 1995). Most managers attempt to devise a conservative payout policy with respect to dividends so that later cuts would not be necessary (DeAngelo and DeAngelo, 1990). More importantly, Jensen and Johnson (1995) show that a dividend reduction is coincident with reduced earnings and is followed by reduced firm capital expenditures, employment , R&D effort and external funding activity. Therefore, our first hypothesis is based on a dividend reduction as being a material negative event for shareholders. An important observation made by DeAngelo and DeAngelo is that over half of their dividend-cutting sample firms also contemporaneously faced binding debt covenants. In contrast, debt covenants rarely affect dividend policy since they are readily waived by lenders. Stricter debt covenants in both bullish and bearish economic environments should allow lenders, i.e. banks, to avoid or discourage more speculative borrowers. This can help keep CDS premia low for these banks, since their cash inflows may be more stable in poorer climates, even if this curtails aggressive lending in stable economic environments.

This study will test the semi-strong form of the efficient market hypothesis (EMH). This theory implies that any market prices, including CDS prices, adjust rapidly to new information. Based on the firm's decision to cut the dividend is a negative financial event, we develop two testable hypotheses: (1) Asymmetric Information CDS hypothesis; and (2) Underinvestment hypothesis. Our Asymmetric Information Hypothesis states that since the equity markets views a cash dividend cut negatively as the firm's signal of reduced expected cash flows, the CDS market will view a dividend cut as new information which reflects negatively on the firm's ability to generate future cash flow. Therefore, the CDS market would construe future bankruptcy or debt default as more likely and to reflect this hypothetically CDS prices will be bid up. Our Underinvestment Hypothesis relies on Myers (1977) work on debt and specifically his underinvestment hypothesis. Myers recognized conflicts between different classes of investors and theorized that the firm's owners could forgo a positive and likely low volatility investment project if a competing class of investors, bondholders, would get the majority of the financial benefit. Therefore, our Underinvestment Hypothesis states that a dividend cut channels cash flow from the lowest priority stockholders to higher priority bondholders, making a firm's default less likely and its debt less risky, and causing its CDS prices to increase.

It is also important to look at the effects of dividend policy on different maturities of CDS. Callen, Livnat, and Segal show that a high cash component of earnings meant a lower long term default risk, while short and medium term maturities have not changed as much. Cash dividends taken out of retained earnings will obviously lower a firm's total earnings. Therefore, one would assume based on this initial study that an increase in the dividend would have a greater impact on longer term CDS maturities than on the short and mid term maturities. Again, this can be seen as going against other evidence shown in Callen, Livnat, and Segal's work that shows the inverse relationship of earnings and CDS prices as a decreasing function of CDS maturity.

We first perform a standard event study around the time that the sample firm's announced their intention to cut their cash dividend to stockholders. We identified a 100-day pre-event window to calculate parameters of a one factor risk-return model using the return of the S&P500 as the market proxy. Next we construct a 5-day window around the event day to segregate the effect of the dividend cut and calculate average excess and cumulative average excess returns. Table 2 displays our results of a significant day 0 excess equity return that agrees with other dividend cut research that identifies a negative market reaction.

Table 2 Event Study of Financial Institutions that Cut or Eliminated their Dividend

Day	AR	CAR	T Statistic	N Negative	N Positive
-5	0.0004	0.0004	0.0401	4	5
-4	(0.0194)	(0.0190)	-0.5600	3	6
-3	0.0048	(0.0143)	1.1286	3	6
-2	(0.0030)	(0.0173)	-0.1062	6	3
-1	(0.0247)	(0.0420)	-1.6597	7	2
0	(0.0798)	(0.1218)	-2.3356	6	3
1	(0.0119)	(0.1337)	-0.5538	6	3
2	0.0043	(0.1294)	0.3058	3	6
3	0.0193	(0.1101)	0.7415	6	3
4	0.0005	(0.1096)	0.0594	6	3
5	(0.0083)	(0.1179)	-0.8030	7	2

Next we turn to the CDS prices of our sample firms. In general daily CDS prices from the private data base are not readily available prior to 2002. In addition the data base does not track the volume of daily trading so we are unable to discern the most active contracts. Some anecdotal evidence suggests that purchasers of CDS contracts are more active in the 5-year maturity contracts; however, we are unable to confirm that. Another problem of the developing CDS market is that without any centralized CDS trading no average market or index price exists. To solve this problem we identify a control firm for each of our sample firms that is as close in SIC code, size of assets and MW/BV ratio as possible.

Table 3a lists the average price of our sample firms' CDS during our event window in basis points. The average cost of a 5-year CDS contract for our sample was 126.931. While the average cost seems low, we notice great dispersion in this value. For instance, the day -5 event window CDS price for one firm (AON Corporation) was 410 basis points, while that of FNMA was only 22 basis points. Clearly including a firm such as FNMA with its implicit U.S. government guarantee positively affects the price of credit insurance.

Table 3A Absolute Average Sample Firm CGS Price Around Announcement of Dividend Cut
(Prices in Basis Points)

Day	1-Year CDS	3-Year CDS	5-Year CDS	7-year CDS	10-Year CDS
-5	124.306	129.292	124.653	121.889	125.750
-4	125.417	130.292	125.792	122.917	126.917
-3	123.806	128.681	124.181	121.306	125.306
-2	123.556	128.431	123.931	121.056	125.056
-1	124.306	129.181	124.681	121.806	125.806
0	123.806	128.306	126.931	120.181	124.056
1	125.194	129.806	124.542	121.653	125.389
2	124.944	129.556	124.292	121.403	125.139
3	123.819	128.181	122.667	120.278	125.139
4	123.944	128.306	122.792	120.403	125.264
5	124.194	128.431	122.792	120.278	125.139

More importantly are the results in Table 3B which display the average difference in the CDS price of the sample firm and the control firm. We match each sample firm to another financial institution that did not reduce its dividend using size and valuation as selection criteria. Then we calculate the excess of the sample firm CDS price over the control firm CDS price. This marginal cost of credit insurance is positive and reflects poorer financial condition of the sample firms.

Table 3C displays the daily change in the sample firm-control firm CDS price. The day 0 value is not large and it is somewhat mixed across the maturities of the CDS contracts. However, the day +1 change is larger in absolute value, weakly indicating a CDS market reaction to the dividend cut announcement. Unlike the almost monotonic reduction in the relative marginal cost of credit insurance in Table 3B, we see a mixed reaction here.

Table 3B Absolute Sample Firm Average CDS Sample Firm-Control Firm Spread Around Announcement of Dividend Cut
(Prices in Basis Points)

Day	1-Year CDS	3-Year CDS	5-Year CDS	7-year CDS	10-Year CDS
-5	40.002	37.433	23.426	21.801	22.329
-4	34.391	31.767	18.420	16.739	17.336
-3	30.752	28.246	15.961	14.399	15.114
-2	30.502	27.996	15.711	14.149	14.864
-1	28.301	26.385	14.691	13.128	13.843
0	28.426	26.135	15.691	12.128	12.718
1	26.308	24.073	11.684	10.052	10.573
2	26.176	23.469	11.552	10.038	10.677
3	24.426	21.469	9.302	8.288	10.052
4	23.606	21.240	8.483	6.878	9.232
5	23.981	21.615	8.983	7.503	9.982

Table 3C Daily Change in CDS Sample Firm-Control Firm Spread Around Announcement of Dividend Cut
(Spreads in Basis Points)

Day	1-Year CDS	3-Year CDS	5-Year CDS	7-year CDS	10-Year CDS
-5	0.840	0.840	0.465	0.465	0.465
-4	-5.611	-5.666	-5.007	-5.062	-4.993
-3	-3.639	-3.521	-2.458	-2.340	-2.222
-2	-0.250	-0.250	-0.250	-0.250	-0.250
-1	-2.201	-1.611	-1.021	-1.021	-1.021
0	0.125	-0.250	1.000	-1.000	-1.125
1	-2.118	-2.062	-4.007	-2.076	-2.146
2	-0.132	-0.604	-0.132	-0.014	0.104
3	-1.750	-2.000	-2.250	-1.750	-0.625
4	-0.819	-0.229	-0.819	-1.410	-0.819
5	0.375	0.375	0.500	0.625	0.750

Perhaps the most valuable data exhibit is Table 3D which displays the cumulative CDS spread. Our results show a noticeable negative trend in the CDS price across all maturities. Furthermore, the reduction is a function of the maturity of the default protection with the longest maturity contract having the least amount of cumulative change. Visually Table 3D is our most important result as it shows a negative reaction of the CDS price to the announcement of the dividend cut. While our results are not likely to be robust statistically, Table 3D supports the Underinvestment Hypothesis that suggests that a dividend cut will make a debt default less likely.

Table 3D Cumulative CDS Sample Firm-Control Firm Spread
Around Announcement of Dividend Cut
(Spreads in Basis Points)

Day	1-Year CDS	3-Year CDS	5-Year CDS	7-year CDS	10-Year CDS
-5	0.840	0.840	0.465	0.465	0.465
-4	-4.771	-4.826	-4.541	-4.597	-4.528
-3	-8.409	-8.347	-7.000	-6.937	-6.750
-2	-8.659	-8.597	-7.250	-7.187	-7.000
-1	-10.861	-10.208	-8.271	-8.208	-8.021
0	-10.736	-10.458	-7.271	-9.208	-9.146
1	-12.854	-12.520	-11.277	-11.284	-11.291
2	-12.986	-13.124	-11.409	-11.298	-11.187
3	-14.736	-15.124	-13.659	-13.048	-11.812
4	-15.555	-15.354	-14.479	-14.458	-12.632
5	-15.180	-14.979	-13.979	-13.833	-11.882

Conclusions

Many researchers eliminate financial institutions from their samples of their empirical research. We study a limited sample of financial institutions and find weak support that the prices of their credit default swaps declines around the announcement of their intention to reduce their cash dividend. Given the preliminary and exploratory state of our paper we are optimistic that the reduction in the CDS cost is true of the phenomenon. While it appears that the dividend cut announcement did not significantly affect the CDS price, we are heartened that the trend in CDS prices allow us to suggest that bondholders' investment is strengthened by the dividend cut and that the CDS price reduction reflects such diminished default risk.

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