

Is there a case for banning short speculation in sovereign bond markets?

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I address whether speculation in credit default swaps is likely to have driven up Eurozone sovereign borrowing costs. I provide empirical evidence, based on research in progress with Zhipeng Zhang, that this is not the case. I also describe the role of speculators in credit default swap markets. I discuss how regulations that severely restrict speculation in credit default swap markets could have the unintended consequences of reducing market liquidity, raising trading execution costs for investors who are not speculating, and lowering the quality of information provided by credit default swap rates regarding the credit qualities of sovereign issuers. Regulations that severely restrict speculation in credit default swap markets could, as a result, increase sovereign borrowing costs. I briefly suggest alternative regulatory approaches.

NB: I am grateful for the use of results from ongoing research with Zhipeng Zhang, for research assistance from Haoxiang Zhu, and for conversations with Nadège Jassaud.

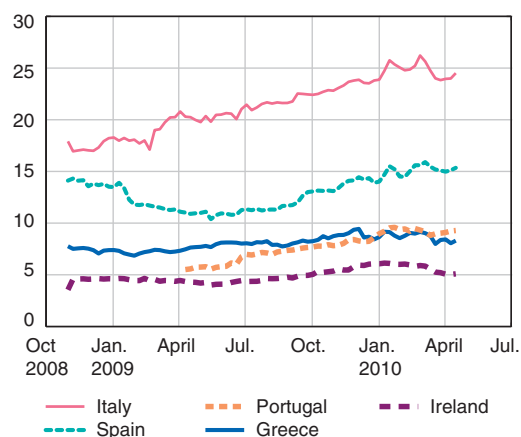
Many have raised concerns that speculation, particularly with credit default swap (CDS) contracts, is responsible for raising the borrowing costs of Greece and other issuers of government debt. Others have suggested that CDS speculation is destabilising. In the United States, significant recent attempts to ban the use of credit default swaps for speculating against the performance of borrowers include a provision in Waxman-Markey Climate Bill as well as the Dorgan amendment to the Senate financial reform bill. In Europe, investigations into the possible damage caused by CDS speculation have been set up by the European Commission and by Michel Barnier, the European Union's financial services commissioner. In May 2010, BaFin, Germany's financial regulator, banned speculation in Germany against European sovereign debt, whether through the use of credit default swaps or outright short bond positions. Well known economists, including Joseph Stiglitz and Richard Portes, have argued against allowing speculation with CDSs that a borrower will default.

Here, I will explain my view that banning speculation against borrowers, whether through credit default swaps or outright short bond positions, is not an effective approach to financial stability, and would likely result in thinner bond markets and poorer public information about a borrower's credit quality. This in turn could ultimately raise a borrower's interest expense.

First, though, I offer a quick review of terminology and background data. A credit default swap, or "CDS," is a derivative security. The buyer of protection pays an annual fee to the seller of protection, referencing a particular borrower such as Greece, and an amount of the borrower's debt. For example, if the agreed CDS rate is 5% and the amount of referenced debt is USD 100 million, then the annual protection fee is USD 5 million. In the event that the named borrower, say Greece, defaults on its debt, the seller of protection then gives the buyer of protection the difference between the referenced amount of debt and the market value of the defaulted debt. For example, if the referenced USD 100 million in debt defaults and as a result has a market value of only USD 30 million, then the buyer of protection would collect USD 70 million from the seller of protection. Credit default swaps are traded in the over-the-counter market. An investor who buys protection without owning a commensurate amount of debt instruments of the referenced borrower is said to have a "naked CDS."

Chart 1
Aggregate net outstanding CDS positions referencing Italy, Spain, Portugal, Greece, and Ireland

(Net CDS position in USD billions)

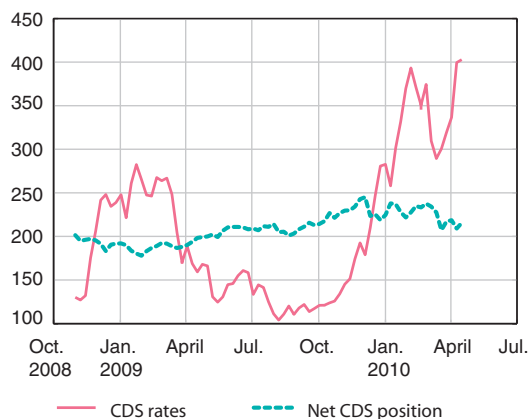


Source: DTCC

If an investor who has bought protection on USD 100 million of Greek sovereign bonds decides to reduce its position to USD 30 million, it would enter a new offsetting credit default swap, to sell protection on USD 70 million of Greek sovereign bonds. The net position of the investor is then USD 30 million. Since November 2008, the Depository Trust and Clearing Corporation (DTCC) has published the market aggregate of the net positions of CDS investors. Chart 1 shows these aggregate-market net CDS positions for five Eurozone countries whose indebtedness has been of concern: Italy, Spain, Portugal, Greece, and Ireland. Although these aggregate CDS positions have grown somewhat over the past eighteen months, the growth has not been especially volatile. Chart 2 shows, however, that the CDS rate for Greece has grown markedly in the past six months, in light of revelations about the true indebtedness of Greece, which had been obscured by reporting problems. The change in the CDS rate on Greek sovereign debt has served to alert investors that Greece may indeed have solvency concerns. Those CDS investors who first speculated that Greece had borrowed more than it could repay seem to have profited from this forecast. The recent decision of Greece to request special financing from Eurozone countries and the International Monetary Fund (IMF) was prompted by its difficulty in paying its debt.

Chart 2
Aggregate net CDS positions on Greece (DTCC data),
and the 5-year CDS rate on Greek sovereign debt

(CDS spreads, bps)



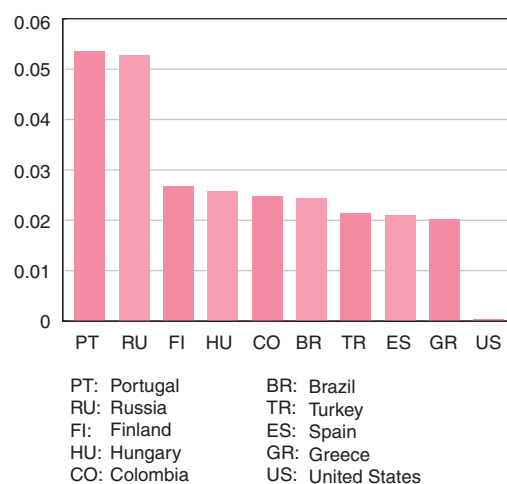
Sources: Bloomberg, DTCC.

Those favoring a ban of naked CDSs have taken one or more of the following positions:

- **Manipulation through demand-based price pressure.** By this line of argument, the CDS speculator could hope to buy so much CDS protection that the CDS rate rises. As a result, the CDS protection buyer could supposedly profit from the increased market value of the CDS position. In order to drive the CDS rate to high levels, the manipulator must pay a higher CDS rate than would apply in a "fair market." As a result, the manipulator intentionally pays too much, losing money relative to fair value, in hopes of more than offsetting this loss by cashing in once the price is high. As the manipulator sells what he has purchased, however, prices respond in the opposite direction. Profitable manipulation through price impact is difficult. Putting aside the difficulty of profiting from manipulation, achieving a sizable price impact would require CDS manipulators to take positions that are large relative to the amount of debt outstanding. In the case of the financially weaker Eurozone sovereigns, Portugal, Spain, Ireland, Italy and Greece, the aggregate net CDS positions shown in Chart 1 represent small fractions of their respective amounts of debt outstanding. With Greece, for example, the aggregate of the net CDS positions held in the entire market has remained well under 3% of the total amount of Greek debt outstanding. In every week since DTCC began reporting market-wide CDS positions in 2008, the increase in aggregate CDS protection bought against Greek

Chart 3
The ratio of aggregate CDS positions (DTCC data)
to national debt outstanding

(ratio of net CDS positions to government debt)



Sources: Bloomberg, DTCC.

sovereign debt was less than 0.18% of the total amount of Greek debt outstanding. That is, even if all CDS protection buyers in the market were manipulators, and had conspired to drive up CDS rates, they would have had only a marginal impact on the total amount of sovereign credit risk borne by bond owners and sellers of protection. Supply and demand for the sovereign's credit would cross at a new price that is relatively close to the "fair-market" (unmanipulated) price. In any case, based on research I am doing with Professor Zhipeng Zhang of Boston College, there is no significant empirical relationship between the amounts of credit default swaps referencing Greece, Italy, Ireland, Spain and Portugal, and the borrowing costs of these sovereigns.

- **Manipulation through misleading price information.** According to this view, CDS speculators could offer to pay so much for CDS protection against Greece that other investors would become unnecessarily alarmed at the prospects of a Greek default. As a result, the other investors would seek to reduce their exposures to Greece, causing the borrowing costs of Greece to increase, to the point that Greece would indeed enter default. The manipulators would, as a result, profit. For this to work, many manipulators would need to conspire to over-pay for CDS protection. The CDS rates reported by financial news services are based on

the rates offered by dealers, who would not wish to over-pay (unless they too were part of the supposed conspiracy). Such a conspiracy would be difficult to hold together; any one manipulator would prefer not to over-pay, and allow others to do so. A variant manipulation scheme would have the manipulator first short a large amount of the underlying bond, then over-pay for a small amount of CDS protection. If this particular CDS trade at a high rate is well noted and misleads bond investors to the point that the prices of bonds drop sharply, the manipulator could quickly exit both the bond and CDS position at a net profit, before better price information arrives in the market. Even if this scheme were successful, it seems unlikely to lead the sovereign toward default. The prices could be distorted for only a brief period.

- **No insurable interest.** By taking a naked CDS, an investor has effectively purchased insurance against an event (the borrower's default) without having an insurable interest. By analogy, this is like buying a life insurance policy on someone else's life, leaving the policy holder with an incentive to bring that person's life to an end (to put it politely). The holder of a naked CDS, likewise, would prefer that the borrower defaults. This argument has merit if the naked CDS holder is in a position to increase the borrower's likelihood of default. Because, as we have just discussed, the CDS speculator is probably unable to heavily influence how much a government will spend or save, the no-insurable-interest argument is not convincing to me. Greece had already borrowed far more than it could pay back before CDS rates rose significantly. Ironically, a greater moral hazard could arise if the protection buyer is hedging a significant loan to the referenced borrower. The lender would no longer be as concerned with monitoring the borrower's credit quality, and could even have an incentive to force the borrower into default prematurely in order to collect on the CDS protection. Hu and Black (2008) call this the "empty creditor" problem. The problem could be mitigated by the required disclosure of CDS positions of those investors holding a significant fraction of the referenced borrower's debt.

- **Instability.** The CDS market allows sovereign credit risk to be shifted more easily and quickly through the market. As a result, using CDSs, speculators can more easily get themselves over-leveraged and into difficulty. If they fail, they could cause losses for their counterparties, and general market instability.

Banning CDS speculation would make it more difficult for investors to take too much risk, and would make the market a safer place. Indeed, counterparty risk in the OTC derivatives market contributed to instability during the recent financial crisis. It is difficult to connect this line of argument to the borrowing costs of Greece or other sovereigns. There have been no reports of failures or instability among speculators shorting Greek or other sovereign CDSs. In any case, the best method of treating the financial instability caused by excessive risk taking in derivatives markets is to require higher collateral requirements, higher capital requirements for systemically important financial institutions, and greater use of central clearing, as discussed by Duffie, Li, and Lubke (2010). These and other pending reforms of the over-the-counter markets will improve the safety and soundness of these markets. Data repositories will eventually give regulators the opportunity to police those who would manipulate these markets, or would take positions whose risks are too large with respect to the capital backing them. Transactions price reporting would add additional transparency and improve market efficiency.

Regulations that severely restrict speculation in credit default swap markets could have the unintended consequences of reducing market liquidity, which raises trading execution costs for investors who are not speculating, and lowering the quality of information provided by credit default swap rates regarding the credit qualities of bond issuers. Regulations that severely restrict speculation in credit default swap markets could, as a result, increase sovereign borrowing costs somewhat. Diamond and Verrecchia (1987) provide theoretical support for the proposition that short-sales restrictions impede the revelation of fundamental information through market prices. In the case of equity markets, there is ample evidence that bans on short selling damage market quality. For example, Boehmer, Jones, and Zhang (2009) show that the short-sales ban imposed on a selection of equities during the financial crisis increased bid-ask spreads for these stocks, increased the sensitivity of their prices to supply shocks, and raised their volatility, relative to those stocks not subjected to the short-selling ban. Additional empirical evidence that short-sales restrictions harm market liquidity or price discovery is provided by Boehmer and Wu (2008), Chang, Cheng, and Yu (2007), and Saffi and Sigurdsson (2007). I am not aware of any empirical evidence that short-sales restrictions have improved the liquidity or price discovery role of a financial market.

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