

CREDIT DEFAULT SWAPS: DUBIOUS INSTRUMENTS

Charles W. Murdock *

Introduction

The past thirty to forty years have witnessed fundamental changes in the nature of our economy, arguably not for the better. At one time, financial institutions were intermediaries; they allocated capital among competing users to ensure the most efficient use of capital. Today, financial institutions are consumers of capital more than allocators of capital. From 1994 to 2009, the assets of the six largest banks in the U.S. grew from 14.8% of gross domestic product (GDP) to 62.1% of GDP.¹ Forty years ago, a major trading day on the New York Stock Exchange involved twenty million shares being traded.² In the past three years, daily trading volume has generally ranged from one billion to two billion shares and, at times, has exceeded four billion shares.³ This increase is due, at least in part, to the fact that institutions have gone from being investors to being traders. Portfolios are turned over, not every seven years, but every seven months.⁴

* Charles W. Murdock is currently a professor of law at Loyola University Chicago School of Law, where he formerly served as Dean. From 1982 to 1985, he was the Deputy Attorney General for Illinois. Prior to that, he served as a consultant to the Securities and Exchange Commission. He is also the author of a two-volume treatise on Illinois business law.

¹ Angie Drobnic Holan, *Six Largest Banks Getting Bigger, Brown Said*, POLITIFACT (Apr. 27, 2010), <http://www.politifact.com/truth-o-meter/statements/2010/apr/27/sherrod-brown/six-largest-banks-getting-bigger-brown-said/> (citing Federal Reserve Bank of Philadelphia data).

² Daily Share Volume in NYSE Listed Issues from 1970 through 1979, NYSE EURONEXT, <http://www.nyse.com/marketinfo/stats/vol70-79.dat> (last visited Mar. 25, 2013).

³ *Daily NYSE Group Volume in NYSE Listed, 2010–Current*, NYSE EURONEXT, http://www.nyxdata.com/nysedata/asp/factbook/viewer_edition.asp?mode=table&key=3141&category=3 (last visited Mar. 25, 2013).

⁴ Dominic Barton, *Capitalism for the Long Term*, HARV. BUS. REV., Mar. 2011, at 85, 87 (“In the 1970s the average holding period for U.S. equities was about seven years.”). See also John C. Bogle, *Restoring Faith in Financial Markets*, WALL ST. J. (Jan. 18, 2010), <http://online.wsj.com/article/SB10001424052748703436504574640523013840290.html> (“[T]he folly of short-term speculation has replaced the wisdom of long-term investing as the star of capitalism. A rent-a-stock system has replaced the earlier own-a-stock system.”).

Derivatives and other “innovative” financial instruments such as collateralized debt obligations (CDOs) and synthetic CDOs were largely responsible for the collapse of the economy in 2008.⁵ The development of these instruments has also contributed to increased trading activity. Prior to 2000, derivatives were a minor factor in the economy. In June 2000, the notional volume of derivatives was \$94 trillion.⁶ By June 2011, derivative volume had risen to \$706.884 trillion, before falling back to \$638.928 trillion in June 2012.⁷ This is an eight-fold to nine-fold increase in such volume. Although correlation certainly does not imply causation, it is fairly clear that the economy performed far better in the late 1990s.

The Faulty Rationale of Credit Default Swaps

In a global economy, there are understandable rationales for derivatives such as foreign exchange contracts.⁸ A party to a contract in one country who transacts with a party in another country may not want to take the risk of currency fluctuations. Similarly, with respect to interest rate contracts,⁹ a person holding a contract with a variable rate might prefer the security of a fixed rate return. However, there is little justification for the existence of credit default swaps (CDSs),¹⁰ and particularly for “naked” CDSs. The financial industry is quick to defend CDSs on the basis that they reduce risk; naked default swaps are justified on the basis that they provide liquidity and price discovery.¹¹ These assertions are supposedly self-evident but there is another side to the story.

Consider a classic example of how CDSs reduce risk. A customer requests very substantial financing from her bank. The bank wishes to please its customer, but does not want to assume a large credit risk. With the advent of CDSs, the bank can purchase protection to reduce its overall risk exposure. In the past, the bank in question could have

⁵ See Charles W. Murdock, *The Dodd-Frank Wall Street Reform and Consumer Protection Act: What Caused the Financial Crisis and Will Dodd-Frank Prevent Future Crises?*, 64 S.M.U. L. REV. 1243 (2011). A recent comment by George Osborne, Britain’s Chancellor of the Exchequer, is equally applicable to the United States: “Irresponsible behavior was rewarded, failure was bailed out, and the innocent—people who have nothing whatsoever to do with the banks—suffered.” Mark Scott, *Plan Could Allow Forced Splits of British Banks*, N.Y. TIMES, Feb. 5, 2013, at B4, available at <http://dealbook.nytimes.com/2013/02/04/osborne-promises-more-regulatory-power-to-split-up-big-banks/>.

⁶ See Press Release, Bank for Int’l Settlements, *The Global OTC Derivatives Market Continues to Grow* (Nov. 13, 2000), <http://www.bis.org/press/p001113.htm>.

⁷ See BANK FOR INT’L SETTLEMENTS, *BIS QUARTERLY REVIEW STATISTICAL ANNEX A141 tbl.19* (Dec. 2012), available at http://www.bis.org/publ/qtrpdf/r_qa1212.pdf.

⁸ In June 2012, foreign exchange contracts had a notional value of \$66.645 trillion. *Id.*

⁹ In June 2012, interest rate contracts had a notional value of \$494.018 trillion. *Id.*

¹⁰ In June 2012, credit default swaps had a notional value of \$26.931 trillion. *Id.*

¹¹ See Dave Mason, *The Senator Has No Clothes: Why a Ban on “Naked” Credit Default Swaps Is Ill-Advised and Impractical*, HERITAGE FOUNDATION (May 5, 2010), <http://www.heritage.org/research/reports/2010/05/the-senator-has-no-clothes-why-a-ban-on-naked-credit-default-swaps-is-ill-advised-and-impractical>.

accomplished the same objective by putting together a syndicated loan or a consortium of banks. While this continues to be a possibility, advocates of CDSs would argue their approach is faster and more efficient. There are, however, many tradeoffs to speed and efficiency. One such opportunity cost is diligence.¹² The recent history of the banking industry epitomizes a lack of due diligence.¹³

An additional concern is the difficulty in adequately pricing CDSs. Since each transaction is unique, there is a dearth of market information about each particular transaction. Reference could be made to the general default swap market, but such information is no more accurate than that which could be obtained from the bond or other market. Where there is a market for the underlying bonds and CDSs, supposedly the CDS market leads the cash bond market in price discovery. But, as Richard Portes has pointed out, “‘leadership’ may be the result not of better information, but of the *effect of CDS prices on the perceived creditworthiness of the issuer.*”¹⁴ This result obtains because a small group of firms dominates the derivatives market,¹⁵ thereby raising questions about pricing efficiency. Moreover, studies from the European Union (EU) suggest that speculation in CDSs may, at least in the short run, lead to mispricing.¹⁶

Finally, there is a question of how much liquidity exists in a thin market. JPMorgan Chase was supposedly expert in managing risk. Thus, it came as a shock when it announced that its chief investment office (CIO) had lost \$2 billion in trading.¹⁷ As a further surprise, it next reported a \$4.4 billion loss.¹⁸ Its own estimate rose to almost \$6

¹² According to Monish Pabrai, who runs a \$500 million fund, when you see what looks like a good deal, “[y]ou go into greed mode.” ATUL GAWANDE, *THE CHECKLIST MANIFESTO: HOW TO GET THINGS RIGHT* 163 (2010). According to neuroscientists, making money stimulates the same primitive reward circuits in the brain as cocaine. *Id.* Consequently, Pabrai asserts that this is when it is critical to focus on a systematic approach to dispassionate analysis, avoiding both irrational exuberance and irrational panic; otherwise, “[y]ou get seduced. You start cutting corners.” *See id.* at 164.

¹³ *See* Murdock, *supra* note 5, at 1271–81, 1287–1301. Keith Johnson, the former President of Washington Mutual’s Long Beach Mortgage testified before the Financial Crisis Inquiry Committee that “[s]everal of these factories were originating, packaging, securitizing and selling at the rate of \$1 billion a day. The quality control process failed at a variety of stages during the manufacturing, distribution and on-going servicing.” *Id.* at 1273.

¹⁴ Richard Portes, *Ban Naked CDS*, EUROINTELLIGENCE (Mar. 18, 2010), <http://www.euointelligence.com/news-details/article/ban-naked-cds.html?cHash=8d1cdb3c68fcffb16fd8c0b1c0ad10f3>.

¹⁵ *See* OFFICE OF THE COMPTROLLER OF THE CURRENCY, OCC’S QUARTERLY REPORT ON BANK TRADING AND DERIVATIVES ACTIVITIES FOURTH QUARTER 2011 11, *available at* <http://www.occ.gov/topics/capital-markets/financial-markets/trading/derivatives/dq411.pdf>.

¹⁶ *See infra* text accompanying note 31.

¹⁷ *See* Stephen Gandel, *JPMorgan’s Trading Debacle: Why \$2 Billion Is Just the Start*, CNNMONEY (May 13, 2012), <http://finance.fortune.cnn.com/2012/05/11/jpmorgan-2-billion-just-start/>.

¹⁸ Dawn Kopecki & Michael J. Moore, *JPMorgan’s \$4.4 Billion CIO Loss Drives Profit Down 9%*, BLOOMBERG (July 13, 2012), <http://www.bloomberg.com/news/2012-07-13/jpmorgan-s-4-4-billion-cio-loss-drives-profit-down-9-percent.html>.

billion and there was speculation that it could go as high as \$9 billion.¹⁹ This dramatic increase was caused, at least in part, because of the difficulty that JPMorgan was having in unwinding its positions.²⁰

An Introduction to Naked Credit Default Swaps

While there are issues generally with regard to covered CDSs, these are magnified when considering naked CDSs.²¹ With covered CDSs, even though the buyer of protection has an interest in the underlying obligation, she faces a moral hazard problem. This problem arises because the holder of the obligation with respect to which protection is sought has, or at least should have, an informational advantage over the party furnishing protection and thus could take advantage of the person providing protection. It is the holder of the instrument who should be responsible for due diligence. Compared to the party furnishing protection, the holder has the relationship, the access, and the leverage to properly assess credit risk. Thus, to use a gambling analogy, CDSs are like gambling with loaded dice since the buyer of protection has better information than the provider of protection.

Despite the exacerbated moral hazard issues engendered by CDSs, they are permitted because the financial industry lobbied to ensure CDSs would not be treated as insurance under the Dodd-Frank Wall Street Reform and Consumer Protection Act.²² If they were treated as insurance, the purchaser would need to have an insurable interest in the subject of insurance.²³ Since holders of naked CDSs have not extended credit to the debtor, they have no insurable interest. As an example, when homeowners buy protection against their house burning down, it is in their best interest that their house does not burn down. Similarly, in a covered CDS, the buyer would prefer that the debt be repaid and purchases insurance to protect against an event that the buyer of protection does not want

¹⁹ See Jessica Silver-Greenberg & Susanne Craig, *JPMorgan Trading Loss May Reach \$9 Billion*, N.Y. TIMES (June 28, 2012), <http://dealbook.nytimes.com/2012/06/28/jpmorgan-trading-loss-may-reach-9-billion/>.

²⁰ See Gandel, *supra* note 17. See also Maureen Farrell, *JPMorgan Chase Loss Only Going to Get Worse*, CNNMONEY (May 20, 2012), <http://money.cnn.com/2012/05/18/markets/jpmorgan-loss/index.htm> (“As soon as it becomes clear that JPMorgan Chase is unwinding its position, it will be obvious to players on every major trading desk. Hedge funds will immediately start piling into that index and buying protection, driving up the bank's losses.”).

²¹ A “covered CDS” refers to a CDS in which the purchaser of protection has a creditor interest in the underlying obligation while with a “naked CDS,” the purchaser of protection does not have a creditor interest in the underlying obligation.

²² Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 722(b), 124 Stat. 1376, 1673 (2010).

²³ See Parliament & Council Regulation 236/2012, Short Selling and Certain Aspects of Credit Default Swaps, 2012 O.J. (L 86) 3 (EU) (“Sovereign credit default swaps should be based on the insurable interest principle whilst recognising that there can be interests in a sovereign issuer other than bond ownership.”).

to occur; namely, the debtor's default. Conversely, in a naked CDS, the "investor" who purchases protection wants the credit default to occur in order to get paid. Otherwise, the "premiums" that the purchaser of protection pays would be wasted.²⁴

The moral hazard in this latter situation is illustrated by the Abacus 2007-AC1 synthetic CDO that Goldman Sachs assembled at the instance of Paulson & Co. (Paulson), which wanted to bet against the housing market.²⁵ In marketing the CDO to investors, Goldman Sachs failed to disclose that Paulson participated in choosing the mortgage-based securities against which the investors would provide protection. It was in Paulson's interest to choose securities that were likely to default so that the parties on the other side of the transaction, who were providing protection, would pay the firm billions of dollars upon default. Goldman Sachs initially argued that Paulson's role was not material, and thus the failure to disclose was not fraudulent, since any seller of protection of necessity must recognize that there is a counterparty on the other side, who is buying protection with an expectation of default.²⁶ Nevertheless, Goldman Sachs settled with the Securities and Exchange Commission and paid a \$550 million fine.²⁷

Regulation of Naked Credit Default Swaps

While Congress rejected a proposal by Senator Dorgan (D-ND) to ban naked CDSs,²⁸ a proposal heavily criticized in this country,²⁹ last year the EU adopted such a ban on sovereign debt.³⁰ This regulation was prompted by studies indicating that short selling and CDSs enabled speculators to distort the creditworthiness of some nations.³¹ A

²⁴ For a history of the evolution from covered CDSs to naked CDSs and the economics of naked CDSs, see Richard R. Zabel, *Credit Default Swaps: From Protection to Speculation*, ROBINS, KAPLAN, MILLER & CIRESI L.L.P. (Sept. 2008), <http://www.rkmc.com/publications/articles/credit-default-swaps-from-protection-to-speculation>.

²⁵ See SEC v. Goldman Sachs & Co., 790 F. Supp. 2d 147, 150 (S.D.N.Y. 2011).

²⁶ See Liz Moyer, *Goldman: In 2006, Paulson Was a Nobody*, FORBES.COM (Apr. 21, 2010), <http://www.forbes.com/sites/streettalk/2010/04/21/goldman-in-2006-paulson-was-a-nobody/>.

²⁷ Press Release, SEC, Goldman Sachs to Pay Record \$550 Million to Settle SEC Charges Related to Subprime Mortgage CDO (July 15, 2010), <http://www.sec.gov/news/press/2010/2010-123.htm>.

²⁸ See Ronald D. Orol, *Senate Rejects Ban of Naked Credit Default Swaps*, MARKETWATCH (May 18, 2010), http://articles.marketwatch.com/2010-05-18/markets/30711928_1_credit-default-swaps-bank-reform-end-debate.

²⁹ See Mason, *supra* note 11. The author suggests that not just creditors of a corporation, but also suppliers and landlords, may need CDS protection. *Id.* However, it seems unlikely that an empirical study of suppliers and landlords would find many who were participants in the CDS market.

³⁰ See Parliament & Council Regulation 236/2012, Short Selling and Certain Aspects of Credit Default Swaps, 2012 O.J. (L 86) 10–14 (EU). See also Noam Noked, *Europe Restricts "Naked" Credit Default Swaps and Short Sales*, HARV. L. SCH. F. ON CORP. GOVERNANCE & FIN. REG. (Dec. 27, 2011), <http://blogs.law.harvard.edu/corpgov/2011/12/27/europe-restricts-naked-credit-default-swaps-and-short-sales/>.

³¹ See, e.g., Catherine Bruneau et al., *Is the European Sovereign Crisis Self-Fulfilling? Empirical Evidence About the Drivers of Market Sentiments* (July 24, 2012) (working paper),

European economics professor summarized the concern as follows:

The rise in sovereign and banking CDSs premia changes the market's expectations about the country's default probability. Market participants sell bonds and banking stocks in the belief that default risk is greater. The market shifts to a pessimistic equilibrium and, in fact, sovereign default becomes more likely. Accounting for shifts in market sentiment explains the sudden eruption of the crisis in countries like Portugal or Spain, where the fundamentals have deteriorated only progressively.³²

Professor Delatte was critical of the regulation, which excluded banking CDSs and exempted market makers, because it did not go far enough.³³ She noted that large dealers in CDSs, such as JPMorgan, dominate the market.³⁴ Similarly, Richard Portes has argued for a broad ban on naked CDSs.³⁵

On the other hand, not all economists favor banning naked CDSs.³⁶ A paper by Camera and Capponi argues that a ban on CDSs decreases liquidity and does not necessarily lower credit spreads in a well functioning market.³⁷ These arguments overlook a fundamental question: when is the market well functioning and when is it dominated by speculation or manipulation? Professor Portes has offered the following scenario:

Naked CDS, as a speculative instrument, may be a key link in a vicious chain. Buy CDS low, push down the underlying (e.g., short it), and take a profit from both. Meanwhile, the rise in CDS prices will raise the cost of funding of the reference entity—it normally cannot issue at a rate that won't cover the cost of insuring the exposure. That will harm its fiscal or cash flow position. Then there will be more bets on default, or at least on a further rise in the CDS price. If market participants believe that others will

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2116240.

³² Anne-Laure Delatte, *The European Ban on Naked Sovereign Credit Default Swaps: A Fake Good Idea*, VOX (July 23, 2012), <http://www.voxeu.org/article/european-ban-naked-sovereign-credit-default-swaps-fake-good-idea>.

³³ *Id.*

³⁴ *Id.*

³⁵ Richard Portes, *Credit Default Swaps: Useful, Misleading, Dangerous?*, VOX (Apr. 30, 2012), <http://www.voxeu.org/article/credit-default-swaps-useful-misleading-dangerous>. See also Portes, *supra* note 14.

³⁶ See Jonathon Boyd, *No Evidence to Support EU Ban on Naked CDS*, INVESTMENT EUROPE (Feb. 14, 2013), <http://www.investmenteurope.net/investment-europe/news/2244090/no-evidence-to-support-eu-ban-on-naked-cds-forum>. See also Carlos Tavares, *The CDS-Bond Spreads Debates Through the Lens of the Regulator*, VOX (Jan. 12, 2011), <http://www.voxeu.org/article/under-regulator-s-microscope-credit-default-swaps>.

³⁷ Gabriele Camera & Agostino Capponi, *Liquidity Impact of a Ban on Naked Credit-Default Swaps* (Sept. 10, 2012) (working paper), available at https://engineering.purdue.edu/Capponi/DynamicsNakedCDS_Sep10.pdf.

bet similarly, then we have the equivalent of a ‘run’. And the downward spiral is amplified by the credit rating agencies, which follow rather than lead. There is clearly an incentive for coordinated manipulation, and anyone familiar with the markets can cite examples which look very much like this.³⁸

The foregoing leads us into another problematic aspect of CDSs. The alleged fraud of Goldman Sachs has already been discussed³⁹ and Portes suggests the possibility of manipulation.⁴⁰ Consider insider trading and manipulation. The federal government faces substantial difficulties in proving insider trading cases, despite the fact that structurally they are fairly simple.⁴¹ For the government to bring a stock manipulation case is extremely rare since manipulation usually involves multiple transactions, often encompassing more than one market, thereby exacerbating the problems of proof and making it more difficult to explain the case to the ordinary person. The ease of manipulation and the difficulty of proving it increase as the security interacts with more markets. The naked CDS market further adds to this complexity.

The London Whale episode at JPMorgan⁴² demonstrates another dark side of CDSs:⁴³ how capital is diverted from productive uses to speculation. These trading losses occurred in the CIO, which supposedly manages excess cash and which should be conservatively run. Instead, Jamie Dimon, CEO of JPMorgan, turned the office into a profit center. In 2009 and 2010, the CIO made a total profit of almost \$8 billion.⁴⁴ Hedging, which seeks protection against loss, should be a loss center, not a profit center. Financial statements from the second quarter of 2012 also showed that deposits exceeded

³⁸ Portes, *supra* note 14.

³⁹ See *supra* text accompanying notes 21–27.

⁴⁰ See Portes, *supra* note 35.

⁴¹ The notion is straightforward: someone trades ahead of the market based upon non-public information.

⁴² See *supra* text accompanying notes 17–20.

⁴³ JPMorgan invested not only in CDSs but also in credit indices and credit index tranches. A credit index is a more complicated form of credit derivative in which the index references a basket of selected credit instruments, typically credit default swaps or similar credit instruments. See U.S. SENATE PERMANENT SUBCOMM. ON INVESTIGATIONS, JPMORGAN CHASE WHALE TRADES: A CASE HISTORY OF DERIVATIVES RISKS AND ABUSES 29–34 (Mar. 15, 2013), *available at* <http://www.hsgac.senate.gov/subcommittees/investigations/reports>. JPMorgan had asserted that its Synthetic Credit Portfolio operated as a hedge, meaning that they were “covered CDSs.” However, the Subcommittee investigation revealed that JPMorgan had “failed to identify the assets or portfolios being hedged, test the size and effectiveness of the alleged hedging activity, or show how the SCP lowered rather than increased bank risk.” *Id.* at 15. In addition, the very fact that it was named the Synthetic Credit Portfolio shows that JPMorgan recognized that it did not hold a creditors interest in the underlying securities.

⁴⁴ See JPMORGAN CHASE & CO., PRESENTATION SLIDES ON 2012 SECOND QUARTER FINANCIAL RESULTS 14 (July 13, 2012), *available at* <http://www.sec.gov/Archives/edgar/data/19617/000001961712000248/jpmc2q12exhibit992.htm>.

loans by \$423 billion.⁴⁵ Where is this excess found? It can be found in the CIO, where the funds are apparently used not just for speculation but also for deception. JPMorgan's 8-K report, in revising earnings, stated:

The restatement results from information that has recently come to the Firm's attention in connection with management's internal review of activities related to CIO's synthetic credit portfolio . . .

However, the recently discovered information raises questions about the integrity of the trader marks, and suggests that certain individuals may have been seeking to avoid showing the full amount of the losses being incurred in the portfolio during the first quarter. As a result, the Firm is no longer confident that the trader marks used to prepare the Firm's reported first quarter results (although within the established thresholds) reflect good faith estimates of fair value at quarter end.⁴⁶

The primary purpose of a bank is to make loans, not speculate. However, Jamie Dimon still asserts that the CIO London Whale transactions were hedging, not speculating transactions.⁴⁷ The impact of CDSs on the economy as a whole does not receive sufficient attention when discussing CDSs. This issue is clearly implicated in the activities of JPMorgan's CIO operation. Institutions are no longer investors, but rather traders.⁴⁸ While trading may create wealth for certain few, it does not create value for the general economy. Both homeowners and small businesses are in need of additional credit.⁴⁹ To the extent the capital is devoted to trading, it is unavailable for growth producing investment.⁵⁰ People are better off fixing up their homes, and businesses are better off investing in new equipment, than going to Las Vegas and gambling. The same holds true in the financial realm. But, as discussed earlier, the lure of the fast buck is irresistible.

⁴⁵ *Id.* at 24 (showing that there were deposits of \$1.116 trillion and loans of \$693 billion).

⁴⁶ JPMorgan, Current Report (Form 8-K), at 3 (July 13, 2012).

⁴⁷ See Agustino Fontevecchia, *Dimon's Volcker Rule Contradiction: On Hedging, Prop Trading, and the London Whale*, FORBES.COM (June 13, 2012), <http://www.forbes.com/sites/afontevecchia/2012/06/13/dimons-volcker-rule-contradiction-on-hedging-prop-trading-and-the-london-whale/>.

⁴⁸ See *supra* text accompanying notes 1–3.

⁴⁹ See *The Path to Job Creation: The State of American Small Business: Hearing Before the H. Comm. On Small Bus.*, 112th Cong. 7–9 (2012) (statement of Martin Neil Baily, Senior Fellow, The Brookings Institution), available at <http://congressional.proquest.com.ezp-prod1.hul.harvard.edu/congressional/docview/t29.d30.hrg-2012-smb-0001?accountid=11311>.

⁵⁰ Cf. Yeon-Koo Che & Rajiv Sethi, *Economic Consequences of Speculative Side Bets: The Case of Naked CDS*, VOX (Sept. 4, 2010), <http://www.voxeu.org/article/economic-consequences-speculative-side-bets-case-naked-cds>.

Conclusion

Unfortunately, as Dominic Barton observed, our focus on short-term profits instead of long-term planning is a substantial barrier to long-term growth.⁵¹ The issue of CDSs needs to be examined in light of how these instruments add or detract from our overall long-term prosperity.

⁵¹ See Barton, *supra* note 4, at 86–88.