

COMING UP SHORT: THE UNITED STATES' SECOND-BEST STRATEGIES FOR CORRALLING PURELY SPECULATIVE DERIVATIVES

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Purely speculative derivatives (PSDs) are derivatives in which neither counterparty is engaged in hedging. Unless they are used for entertainment purposes, PSDs are irrational, less-than-zero-sum transactions. Entities that engage in PSDs jeopardize their stakeholders and increase systemic risk. PSDs can also increase moral hazard, can be used for regulatory arbitrage, and can redirect resources away from the efficient allocation of market capital. PSDs should be unenforceable contracts, void for public policy reasons, except where they are expressly permitted to provide gambling entertainment, enhance price discovery, or increase liquidity for hedgers.

In the United States, however, PSDs are often legal and enforceable, even after the global financial crisis of 2008—a crisis that was exacerbated by PSDs. Several provisions of the Commodity Exchange Act (CEA) and the Dodd-Frank Act indirectly address some of the threats of PSDs. These strategies include increased clearing requirements, increased capital and margin requirements, required information reporting, the elimination of previous regulatory exemptions, the prohibition against proprietary trading for certain commercial banks, and a declaration that no bailout financing will be given to financial entities speculating in derivatives. These strategies, however, do not eliminate PSDs or their problems. At best, they discourage

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firms from entering into PSDs. The extent of discouragement, however, is unclear. At worst these second-best strategies do little to decrease PSD costs and risks.

There is statutory space within the CEA, however, to allow courts and federal regulatory authorities to aggressively restrict PSDs while permitting them where they are socially beneficial. This space is a function of themes permeating the CEA—the disfavorable treatment of over-the-counter (OTC) derivatives, the concern for the public benefit, the favorable treatment of hedging transactions, the disfavorable treatment of speculating transactions, and the promotion of price discovery and hedger liquidity. Appropriate regulation of PSDs would help avert future financial disasters and foster the efficient allocation of capital.

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INTRODUCTION

The list of billion-dollar derivatives losses in the United States is impressive.¹ Orange County, California lost almost \$2 billion in 1994 betting on the movement of interest rates.² J.P. Morgan lost \$2 billion in 2012 betting on the movement of a creditworthiness index. Long Term Capital Management lost almost \$5 billion in 1998 betting on the movement of various securities prices and interest rates.³ In 2006 Amaranth Advisors lost \$6.5 billion betting on the future price of natural gas. Several of these entities went bankrupt. Some had to be

¹ Wikipedia has an entry entitled “List of Trading Losses” that lists forty-five of the largest trading losses in history. At least forty are described as losses from derivatives betting. See *List of Trading Losses*, WIKIPEDIA, http://en.wikipedia.org/wiki/List_of_trading_losses (last visited Oct. 24, 2014).

² FRANK PARTNOY, *INFECTIOUS GREED: HOW DECEIT AND RISK CORRUPTED THE FINANCIAL MARKETS* 114–21 (2003); Sarah Lubman & John R. Emshwiller, *Before the Fall: Hubris and Ambition in Orange County: Robert Citron’s Story*, WALL ST. J., Jan. 18, 1995, at A1.

³ THE PRESIDENT’S WORKING GROUP ON FINANCIAL MARKETS, HEDGE FUNDS, LEVERAGE, AND THE LESSONS OF LONG-TERM CAPITAL MANAGEMENT 10–22 (1999); John E. Marthinsen, *Derivative Scandals and Disasters*, in *FINANCIAL DERIVATIVES: PRICING AND RISK MANAGEMENT* 313–14 (Robert W. Kolb & James A. Overdahl eds., 2010).

bailed out. AIG lost so much money on speculative derivatives in 2008 that the U.S. government provided it with a \$182.5 billion bailout.⁴

But investments go bust all the time. For example, in 2000 AOL bought Time Warner for \$164 billion. In 2002, because of the failure of that merger, AOL Time Warner took a goodwill write-off of \$99 billion and its market capitalization subsequently dropped from \$226 billion to \$20 billion. Pharmaceutical companies annually pour billions of dollars into the development of new drugs which never make it to market. Banks and other investors purchased over \$100 billion of sovereign bonds from Argentina prior to 2002. Argentina defaulted on those bonds. Every year, thousands of law school students invest tens of thousands of dollars into their education only to discover they cannot pass the bar exam or get a job after graduation. The list of investment losses is endless.

But derivatives losses are different from these other investment losses. Whereas the latter type of investment losses result from trying to most efficiently allocate capital and other resources to their most productive uses in the real economy,⁵ derivatives do not serve an efficient capital allocation function and instead merely shift wealth from one counterparty to the other. In every derivative contract—whether billions of dollars are lost or just pennies—one counterparty will lose and one party will win, and the winner takes his winnings from the loser's pocket.⁶ Often this wealth-shifting results from using derivative

⁴ U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-09-397T, SYSTEMIC RISK: REGULATORY OVERSIGHT AND RECENT INITIATIVES TO ADDRESS RISK POSED BY CREDIT DEFAULT SWAPS 27 (2009) (“[T]he volume and nature of [AIG’s derivatives] business made it such a large counterparty that its difficulty in meeting its [derivatives] obligations not only threatened the stability of AIG but of the entire financial system as well.”); William K. Sjostrom, Jr., *The AIG Bailout*, 66 WASH. & LEE L. REV. 943, 944 (2009); Joint Press Release, Bd. of Governors of the Fed. Reserve Sys. & U.S. Dep’t of the Treasury, U.S. Treasury and Federal Reserve Board Announce Participation in AIG Restructuring Plan (Mar. 2, 2009), available at <http://www.federalreserve.gov/newsevents/press/other/20090302a.htm>; Adam Davidson, *How AIG Fell Apart*, REUTERS (Sept. 18, 2008), <http://www.reuters.com/article/2008/09/18/us-how-aig-fell-apart-idUSMAR85972720080918>.

⁵ Some have argued that the secondary markets for equities and debt do not provide the same function of shifting capital from where it is to where it is best utilized since transactions in the secondary markets merely re-allocate equity and debt assets, assets which have little or no utility other than their value. See, e.g., Lynn A. Stout, *Are Stock Markets Costly Casinos? Disagreement, Market Failure, and Securities Regulation*, 81 VA. L. REV. 611, 682–91 (1995). However, it is commonly assumed that the existence of the secondary market, in particular the liquidity within the secondary market for financial securities, lowers the cost of capital for equity and debt issuers, thus more efficiently allocating capital to its most efficient uses. *But see id.* (suggesting that the transactions costs associated with ensuring that securities can be traded publicly in the secondary market actually might have the effect of raising the net cost of capital).

⁶ Indeed, not everyone was disappointed in the billion-dollar derivatives losses listed above. See *supra* note 1. These losing entities’ counterparties won the billions of dollars these losing entities lost.

contracts to hedge pre-existing risks. Indeed, this ability to shift risk is often touted as the primary value of derivatives. But derivatives counterparties do not always enter into derivative contracts in order to shift risk; sometimes they are merely betting on the future value of underlying reference metrics or on the occurrence of future events. In other words, they are speculating. This Article refers to a derivatives contract in which neither party is using the derivative to hedge a pre-existing risk, i.e., where the parties are merely betting on a future outcome, as a “purely speculative derivative” (PSD).⁷ Except in limited circumstances, PSDs are irrational and wealth destroying, and impose significant costs on society, yet they exist and are often enforceable contracts in the United States.

This Article is about how PSDs are regulated in the United States. In particular, this Article explores how PSDs have legal space to persist in the United States despite their negative externalities, wealth-destroying nature, irrationality,⁸ and existing state anti-gambling laws. Indeed, it is well established that derivatives speculation exacerbated the global financial crisis of 2008, yet the Dodd-Frank Act provided for only second-best solutions to the problems posed by PSDs.

Parts I and II of this Article provide background information. Part I provides a very brief derivatives primer and describes how the form of what we know as gambling, insurance, and financial derivatives are in fact the same. Part II discusses the nature of PSDs more carefully, and argues that, except in certain circumstances, PSDs are wealth-destroying, zero-sum, irrational transactions that impose significant harms on society while only occasionally creating some positive externalities. Possible positive externalities include price discovery and enhanced liquidity for would-be hedgers.

Part III introduces a comprehensive, optimal derivatives regulatory scheme based on a hedger-speculator taxonomy. The most prominent feature of the regulatory proposal is that PSDs should ordinarily be void and unenforceable. Regulators can make exceptions to this rule if the PSDs offer entertainment utility (like casino gambling), or offer positive externalities that significantly outweigh their negative externalities.

Part IV discusses how derivatives in general, and PSDs in particular, are regulated in the United States, particularly by the

⁷ See generally Timothy E. Lynch, *Gambling by Another Name: The Challenge of Purely Speculative Derivatives*, 17 STAN. J.L. BUS. & FIN. 67 (2011) [hereinafter Lynch, PSDs] (identifying PSDs and discussing their social benefits and harms). I am not the first to use this phrase or a similar phrase. See, e.g., Lynn A. Stout, *How Deregulating Derivatives Led to Disaster, and Why Re-Regulating Them Can Prevent Another*, LOMBARD ST., July 6, 2009, at 4–6 (referring to “purely speculative derivative contracts”). But it appears that I am the first to regularly employ “purely speculative derivative” as a noun phrase.

⁸ See Lynch, PSDs, *supra* note 7.

Commodity Exchange Act (CEA) and the Dodd-Frank Act. Specifically, Part IV demonstrates that PSDs are regulated in the United States in a way that somewhat resembles the proposal described in Part III, but the CEA and the Dodd-Frank Act ultimately fail to regulate the financial PSDs in an optimal way. Instead, the CEA and the Dodd-Frank Act prescribe second-best strategies for addressing the problems posed by PSDs. Such second-best strategies include regulations that reduce counterparty risk and regulations that decrease the likelihood of PSD creation in regulated markets. Otherwise, many PSDs are enforceable. Part V concludes by suggesting that there is ideological space within the CEA for the Commodity Futures Trading Commission (CFTC) and the states to regulate PSDs in a manner similar to that proposed by this Article. A conclusion follows.

I. A DERIVATIVES PRIMER

A. *A Definition of Derivatives*

A derivative is an aleatory contract⁹ between two counterparties wherein the payoffs pursuant to the contract to and/or from each counterparty depend on the outcome of one or a set of extrinsic, future, uncertain event(s), value(s), and/or other metric(s), and wherein each counterparty expects an outcome opposite to that expected by the other counterparty.¹⁰ As I argue elsewhere, because of these characteristics,

⁹ An aleatory contract may be defined as a “contract in which at least one party’s performance depends on some uncertain event that is beyond the control of the parties involved.” BLACK’S LAW DICTIONARY 366 (9th ed. 2009). The word “aleatory” is derived from the Latin *aleator*, “gambler,” which itself comes from the Latin word *alea*, meaning “the throwing of dice.” *Id.* at 83, 366; see also Edwin W. Patterson, *Hedging and Wagering on Produce Exchanges*, 40 YALE L.J. 843, 852 n.31 (1931) (“In this article the term ‘wager’ is used to designate an aleatory agreement which does not serve the purpose of indemnifying either party against injury to an extraneous interest.”).

¹⁰ Timothy E. Lynch, *Derivatives: A Twenty-First Century Understanding*, 43 LOY. U. CHI. L.J. 1, 28–30 (2011) [hereinafter Lynch, *Twenty-First Century Derivatives*]. This is not a common definition of “derivatives.” Financial derivatives are typically described in words to the following effect: “a financial instrument whose value depends on (or derives from) the values of other, more basic, underlying variables.” JOHN C. HULL, *OPTIONS, FUTURES, AND OTHER DERIVATIVES* 1 (7th ed. 2009). But definitions that focus on the fact that a derivative’s value is a function of some other thing fail to satisfactorily capture the nature and scope of derivatives. These traditional definitions are under-inclusive in that they typically fail to adequately emphasize the fact that the underlyings of derivatives have evolved to potentially include anything, any metric or any event. Theoretically, “anything that can be quantified and objectively verified can be the subject of a derivative.” Mark A. Guinn & William L. Harvey, *Taking OTC Derivative Contracts as Collateral*, 57 BUS. LAW 1127, 1129 (2002). These traditional definitions are also over-inclusive in that they provide no real identifying characteristics and give no real insight into the nature of financial derivatives. For a comprehensive framework for understanding the nature of derivative contracts, see generally

what we commonly call “insurance” contracts and “gambling” agreements are, in fact, derivatives.¹¹

The values or metrics to which derivatives commonly refer include the prices of agricultural commodities; prices of metals, minerals, and energy products; the price of equity securities and the levels of equity indices; the volatility of bonds; foreign currency exchange rates; interest rates; the price of other derivative contract positions; real estate prices; creditworthiness measures; weather-related values; and sports-related values.¹² Common underlying events, in which payments are calculated on the basis of whether or not certain events occur within a given time, include whether one’s house burns down, whether a credit event occurs, whether a lottery number is drawn, or whether a horse wins a race. The underlying event, value, or metric of any particular derivatives contract is referred to as that contract’s “underlying.”¹³

Indeed, the set of metrics, values, or events which can serve as underlyings are infinite. Recent novel underlyings include the price of

Lynch, *Twenty-First Century Derivatives*, *supra*. It is also noteworthy that the most significant statutes regulating derivatives in the United States often use but do not define the word “derivative.” See *infra* Part IV.B.

¹¹ Lynch, *Twenty-First Century Derivatives*, *supra* note 10 (developing this definition through a process of identifying the essential characteristics of derivatives); see also Thomas Lee Hazen, *Disparate Regulatory Schemes for Parallel Activities: Securities Regulation, Derivatives Regulation, Gambling, and Insurance*, 24 ANN. REV. BANKING & FIN. L. 375 (2005) [hereinafter Hazen, *Disparate Regulatory Schemes*]; Thomas Lee Hazen, *Rational Investments, Speculation, or Gambling?—Derivative Securities and Financial Futures and Their Effect on the Underlying Capital Markets*, 86 NW. U. L. REV. 987 (1992) [hereinafter Hazen, *Rational Investments, Speculation, or Gambling?*]; Lynn A. Stout, *Derivatives and the Legal Origin of the 2008 Credit Crisis*, 1 HARV. BUS. L. REV. 1, 6 (2011) [hereinafter Stout, *Origin of the Credit Crisis*]; Lynn A. Stout, *Insurance or Gambling? Derivatives Trading in a World of Risk and Uncertainty*, 14 BROOKINGS REV. 38 (1996) [hereinafter Stout, *Insurance or Gambling?*].

¹² See, e.g., *CME Group All Products – Codes and Slate*, CME GROUP, <http://www.cmegroup.com/trading/products/#sortField=oi&sortAsc=false> (last visited Oct. 24, 2014) (showing the list of exchange-traded derivatives contracts offered by the CME Group, the world’s largest derivatives exchange company).

¹³ It is commonly said that derivatives provide, in the aggregate, zero-sum payoffs to the counterparties in that whatever value is won by one counterparty is taken from the pocket of the other counterparty. E.g., Hazen, *Rational Investments, Speculation, or Gambling?*, *supra* note 11, at 1006–07 (“[F]utures and options markets represent a zero-sum game. . . . [F]or every winning contract, there must be a correlative losing one. . . . Futures and options contracts are . . . noteworthy in that they do not produce wealth, but instead merely involve the transfer of wealth.” (footnotes omitted)); Stout, *Insurance or Gambling?*, *supra* note 11, at 40 (“[D]erivatives transactions are, by their very nature, zero-sum games. . . . [O]ne derivatives trader’s gain is necessarily balanced by another’s loss.”). Some derivatives, however, can provide non-monetary value, e.g., by providing one or both parties with a consumer and/or producer surplus, hedging value, or entertainment value. Some derivatives may also create positive externalities in the form of improved price discovery. See Lynch, *Twenty-First Century Derivatives*, *supra* note 10, at 18, 34–46; *infra* Part II.B.1.

greenhouse gas emissions permits,¹⁴ the value of subprime mortgage-related securities,¹⁵ *The Lego Movie* box office receipts,¹⁶ unemployment rates, election results, catastrophe-related measurements, whether or not there will be a terrorist attack, whether or not the Democrats retain the Senate, and whether or not we will discover extraterrestrial life.¹⁷ Quite simply, in order to execute a derivative contract, all that is required is a future reference number—some value or metric.¹⁸ For example, in the wheat derivative example below, the reference number is the future spot price of wheat.¹⁹

¹⁴ ICE Futures Europe lists several futures referencing carbon dioxide emission permits. *Products – Emissions*, INTERCONTINENTAL EXCHANGE, <https://www.theice.com/products/Futures-Options/Energy/Emissions> (last visited Oct. 24, 2014).

¹⁵ John Paulson's hedge fund famously earned the largest one-year payday in Wall Street history (\$15 billion) in large part by entering into derivatives known as "synthetic collateral debt obligations" that referenced the housing market. Paulson had bet that the housing market would fall. His counterparties bet that the housing market would stay strong. His counterparties lost. See *Complaint, SEC v. Goldman Sachs & Co.*, 790 F. Supp. 2d 147 (S.D.N.Y. 2010); Ivar Simensen, *Subprime Woes Take Their Toll in Germany*, FIN. TIMES (London), July 31, 2007, at 20.

¹⁶ See HOLLYWOOD STOCK EXCHANGE, www.hsx.com (last visited Oct. 24, 2014) (providing an online exchange where, for entertainment purposes, traders using fictitious money can enter into film- and television-related derivatives contracts).

¹⁷ See Robert W. Kolb, *Exotic Options*, in FINANCIAL DERIVATIVES: PRICING AND RISK MANAGEMENT, *supra* note 3, at 143, 147–49 (discussing event-based derivatives and event markets such as the Iowa Electronic Market, the Policy Analysis Market, and the Hollywood Stock Exchange). Until it went out of business in 2013, the Irish-based Intrade.com offered over 100 derivatives on events relating to such things as politics, science, buildings, entertainment, finance, weather, technology, terrorism, and the discovery of extraterrestrial life. Joel Schlesinger, *Roll of the Dice*, WINNIPEG FREE PRESS, Oct. 20, 2012, at B12; INTRADE: THE WORLD'S LEADING PREDICTION MARKET, <http://www.intrade.com> (last visited Oct. 24, 2014); see also Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Charges Ireland-Based "Prediction Market" Proprietors Intrade and TEN with Violating the CFTC's Off-Exchange Options Trading Ban and Filing False Forms with the CFTC (Nov. 26, 2012), available at <http://www.cftc.gov/PressRoom/PressReleases/pr6423-12>.

¹⁸ For an event derivative, also known as "binary options," the reference values might be 1 (the event happens) or 0 (the event does not happen). Nadex, an American-based derivatives exchange registered with and regulated by the Commodity Futures Trading Commission, offers binary options referencing a myriad of economic indicators including the federal funds rate, the number of Americans filing for unemployment benefits, the number of new jobs, and many commodities historically associated with non-binary derivatives such as equity indices, agricultural commodities, crude oil prices, and currency exchange rates. NADEX, <http://www.nadex.com> (last visited Oct. 24, 2014).

¹⁹ Judgment is sometimes required to determine whether or not a transaction or contract is a derivative or has a separable derivatives component. Consider the following difficult cases: construction contracts with early delivery incentive clauses, employee stock options, adjustable rate loans, securities with attached security warrants, leases with purchase options, and exclusive home purchase options. Each of these has a derivative-like component, but the determination about whether or not any of these should be deemed a derivative simply requires the interpretation of some aspect of the definition presented here and/or requires judgment as to whether or not it is reasonable to evaluate the embedded derivative component separately from the rest of the contract. Many of these are almost certainly not derivatives. Where a counterparty has enough control over the underlying, the contract is not aleatory and the underlying is not extrinsic to the contract. A contractor with an early incentive clause might have enough control

B. *A Taxonomy of Derivatives Based on Counterparty Motivation*

Derivatives can be used by one or both counterparties to hedge against existing risks or merely to speculate. Indeed, using derivatives to hedge risk is typically viewed as the most significant reason for derivatives' existence and their most important value to society. Purely speculative derivatives are derivatives in which neither counterparty is using the derivatives contract to hedge a pre-existing risk. PSDs are, to put it simply, merely bets.²⁰

1. Both Counterparties Are Hedgers

In many derivatives contracts, one or both counterparties are motivated to enter into the contract in order to hedge a pre-existing

over the delivery date. The value of the house or the car will in large part be determined by perceptions and desires intrinsic to the purchase option holder. Even a corporate employee holding stock options might have just enough control over his company's share price. Additionally, if both counterparties to the contract have similar expectations or desires, not opposite ones, the contract may not be characterized as a derivative. Such is likely to be the case for the construction contract, employee stock options, and the home purchase option where both counterparties would like to see the construction finished early, the stock price rise, and the house sold, respectively. Also, if there is no opportunity to settle the contract through a future payment from one counterparty to another, the contract is unlikely to be a derivative. An option to purchase a house results in either a purchase or the expiration of the contract. There can be no settlement. Additionally, it may not be reasonable to separate a derivatives component from the rest of a contract because either (i) any premium paid for an option is in reality a purchase of a good or service (e.g., the home purchase option and the lease-to-own option are purchases of exclusivity); or (ii) the nature of the uncertain future payments are either more reasonably characterized merely as compensation for goods and/or services (e.g., the construction contract, employee stock options, and the lease-to-own car rental) or the cost of capital (e.g., securities with attached security warrants and adjustable rate loans). The CEA refers to certain categories of these latter instruments either as "hybrid instrument[s] that [are] predominantly . . . securit[ies]" or as "hybrid instrument[s] that [are] predominantly . . . banking product[s]," and exempts them from its coverage. 7 U.S.C. §§ 2(f)(1), 27c (2012); *see also id.* §§ 1a(29), 27(c).

If a contract is for the sale of a good for future delivery, actual delivery may be intended and expected (not merely contemplated), and the contract may be more appropriately characterized as a simple sale of goods or cash sale rather than a derivative. Alternatively, bona fide hedging can occur without effectuating actual delivery.

²⁰ Or, in two other words, wagers or gambles. *See Stout, Origin of the Credit Crisis, supra* note 11, at 6 (pronouncing that all derivatives are "bets"); *Proceedings of the 2011 Annual Symposium: Regulatory Reform and the Future of the U.S. Financial System: An Examination of the Dodd-Frank Regulation: Panel 1: Derivative Regulation*, 7 N.Y.U. J.L. & BUS. 439, 443 (quoting Alan Rechtschaffen, an executive of an affiliate of UBS, describing derivatives as "bets" immediately after confessing, "I don't like to use this word, considering [that] is what I do for a living—but . . ."); *see also* Lynn A. Stout, *Uncertainty, Dangerous Optimism, and Speculation: An Inquiry into Some Limits of Democratic Governance*, 97 CORNELL L. REV. 1177, 1195 (2012) [hereinafter Stout, *Dangerous Optimism*] (arguing that disagreement-based speculative trading is a foreseeable market failure).

risk. This risk-shifting is economically valuable. For example, insurance is a kind of derivative where risk is shifted from a policyholder to the insurance company.²¹ Or, a farmer who plants wheat in the spring has the risk that after he harvests in the fall the market price for wheat will have fallen. In order to hedge this risk, the farmer can enter into a derivatives contract in the spring in which he contracts to sell his to-be-harvested wheat at a pre-determined price but delivers the wheat to the buyer in the fall after the wheat is harvested. By contracting for a price in the spring, the farmer has eliminated his risk that the market price for wheat will fall. Of course, if the market price of wheat rises by the time of the harvest, he will have forfeited whatever additional price he could have earned selling the wheat at that higher price. In this case, the buyer would get the benefit of receiving wheat in the fall at a price below the fall spot price. Such a contract is typically called a forward or a future.²²

Indeed, the buyer of the wheat may also be hedging a pre-existing risk. If the buyer is a flour mill that knows in the spring that it will be buying wheat in the fall, it has the risk that the spot price of wheat will increase by the fall. By entering into the derivatives contract with the farmer, the mill has eliminated its existing risk that the price will rise.

What is important to understand is that instead of delivering actual wheat the parties can “cash settle” the contract with a one-time cash payment. In other words, one counterparty could simply pay money to the other counterparty in an amount equal to the difference in the spot price and the exercise price. Alternatively, but economically equivalently, the parties could enter into a subsequent “offsetting” transaction wherein the buyer sells an equivalent amount of wheat to the farmer with the same delivery date but for a price reflective of the later spot price of wheat. Offsetting also results in a one-time payment from one counterparty to the other without any delivery of actual wheat.

For example, assume a contract is for 1000 bushels of wheat to be delivered on November 1 for \$7.00 per bushel. If the spot price of wheat on November 1 is \$6.70, the farmer would still receive \$7.00/bushel on that date. Alternatively, the parties can settle the contract by simply having the buyer pay the farmer \$300. Another economically equivalent option is for the parties to enter into a subsequent offset transaction wherein the buyer sells the farmer 1000 bushels for \$6.70/bushel for delivery on November 1. This also results in the obligation of the buyer to pay the farmer \$300 on November 1. Whether the result of settling or offsetting, no actual wheat need be involved in the transaction at all, and

²¹ Insurance contracts are event derivatives and economically equivalent to options.

²² The difference between a forward and a future is that a future is a forward offered and traded on an exchange. DON M. CHANCE & ROBERT BROOKS, *AN INTRODUCTION TO DERIVATIVES AND RISK MANAGEMENT* 3–4 (7th ed. 2007).

all that is required on the delivery date is a one-time lump sum payment from buyer to the farmer. Conversely, if the spot price of wheat on November 1 rises above the contract price to, let's say, \$7.20, the farmer is under an obligation to sell the wheat for only \$7.00 bushel. However, the contract could be settled or offset simply by having the farmer pay the buyer \$200.

In the United States today, nearly all derivatives contracts are settled or offset upon the expiration or strike date, whether or not they are used for hedging.²³

2. Speculating Counterparties

One need not be a wheat producer or a wheat consumer to enter into such a wheat futures contract. Anyone can enter into a wheat futures contract as the buyer or the seller. Imagine that a wheat seller and the wheat buyer have no interest in actual wheat and are not using the contract to hedge a pre-existing risk. Such counterparties are termed “speculators,” and a derivatives contract between two speculators is a

²³ S. L. GUPTA, FINANCIAL DERIVATIVES: THEORY, CONCEPTS AND PROBLEMS 16 (2006) (“[H]ardly one to two percent [of] derivatives are settled by the actual delivery of the underlying assets. As such speculation has become the primary purpose of the birth, existence and growth of derivatives.”); ROBERT W. KOLB & JAMES A. OVERDAHL, UNDERSTANDING FUTURES MARKETS 15–17, 23 (6th ed. 2006) (noting that for the fiscal year ending in September 2005, less than one percent of futures contracts were settled by either physical delivery or cash delivery). Engaging in an offsetting transaction and enjoying or incurring the difference in the previous price and the current price is the typical way for exchange-traded derivative positions to be liquidated. PHILIP MCBRIDE JOHNSON & THOMAS LEE HAZEN, DERIVATIVES REGULATION 28–29 (2004).

Curiously, courts have repeatedly stated that a PSD—provided offsetting is intended—is not an illegal “sham” or unenforceable gambling transaction; even though both parties were speculating, actual delivery was never intended, and the set of transactions end in a payment (or set of payments) from one counterparty to the other based on the changed market price of the underlying. *E.g.*, *Salomon Forex, Inc. v. Tauber*, 8 F.3d 966, 978 (4th Cir. 1993) (“A set-off is in legal effect a delivery.” (quoting *Bd. of Trade of Chi. v. Christie Grain & Stock Co.*, 198 U.S. 236, 249 (1905))). Such fiction enabled courts to enforce agreements made in “respectable” commodities exchanges while refusing to enforce agreements executed at bucket shops. *Bd. of Trade of Chi.*, 198 U.S. at 249 (“Purchases made with the understanding that the contract will be settled by paying the difference between the contract and the market price at a certain time stand on different ground from purchases made merely with the expectation that they will be satisfied by set-off.” (citations omitted)); see ANN FABIAN, *CARD SHARPS, DREAM BOOKS, & BUCKET SHOPS: GAMBLING IN 19TH-CENTURY AMERICA* (1990) (describing the efforts of 19th century futures exchanges to maintain legal status); see also *infra* Parts III.C, IV.C.

Interestingly, as of June 2010, the CFTC had approved approximately 500 contracts for exchange trading in which the underlying was not deliverable and had no cash market, including company-specific earnings per share, inflation indices, payrolls, retail sales data, unemployment claims, company specific mergers and acquisitions, state-specific and national crop yields, movie box office receipts, and weather measurements. U.S. COMMODITY FUTURES TRADING COMM’N, STATEMENT OF THE COMMISSION 3 (June 14, 2010), available at <http://www.cftc.gov/ucm/groups/public/@otherif/documents/ifdocs/mdexcommissionstatement061410.pdf>.

purely speculative derivative.²⁴ In such a contract, the two parties would most typically, if not always, settle (or offset) their accounts on the delivery date by simply making a one-time cash payment from one counterparty to the other in an amount that will be determined by the contract price, the spot price of wheat on the delivery date, and the amount of wheat purchased.²⁵ Note that because of the opportunity to settle (or engage in an offsetting transaction), the physical nature of the underlying commodity is irrelevant. What is important is that there is a metric—e.g., a price, index—that can be used to calculate the amount and direction of the payment(s) from one counterparty to the other.

In many cases a single counterparty to a derivatives contract is both hedging and speculating simultaneously. Such would be the case if a hedger enters into a derivatives contract that is not narrowly tailored to reduce or eliminate a pre-existing risk without creating new, additional risk. This might occur, for example, if only standardized contract positions are readily available to a would-be hedger or if a hedger hedges with a derivative that references an underlying that moves in less-than-perfect correlation with the movement of the underlying he is exposed to. In such a case this counterparty can be said to have engaged in “overprotection.” Under the application of the framework presented here, (and, as will be discussed later, under possible legal analysis regarding the extent of contract enforceability), a derivatives contract that creates sizable risk that is not effectively hedged or neutralized by a pre-existing risk but otherwise has a hedging component, can be considered as two separate derivatives contracts, one in which the particular counterparty is only hedging and another in which that same counterparty is speculating.²⁶

3. Distinguishing Between Hedging and Speculating

A common critique of the practice of categorizing derivatives contracts in terms of whether or not one or both parties are hedgers or speculators is the suggestion that it is very difficult, if not impossible,

²⁴ The term “speculator” means various other things in other investment contexts, but such meanings, which might emphasize either the expected temporal nature of an investment holding, the size or character of the risk incurred, or the investing skill (or lack thereof) of the investor, are not used here.

²⁵ Or, particularly in the case of an exchange-traded position, buy or sell an offsetting position. *See supra* note 23 and accompanying text.

²⁶ If both counterparties, pursuant to their derivative contract, incur risk beyond that which neutralizes their respective pre-existing risks, their one derivative contract may be deemed to be a combination of as many as four derivatives contracts: (i) a hedger-hedger contract, (ii) a hedger-speculator contract, where counterparty A is the speculator, (iii) a hedger-speculator contract, where counterparty B is the speculator, and (iv) a speculator-speculator contract.

to determine whether or not a party is hedging or speculating in a given contract.²⁷ Admittedly, it might be difficult to distinguish between hedging and speculation at the margins. However, away from the margins, this is not difficult. As an initial matter, hedging must be understood in a broad sense. The risk that the value of some asset will move in an unfavorable way can be hedged with a derivative contract referencing an underlying whose value moves in a (positively or negatively) correlated way.²⁸

The feasibility that a distinction can often be easily made is reflected in various provisions of the law. For example, insurance law requires that in order to be the beneficiary of an insurance policy one must have an insurable interest.²⁹ One cannot take out insurance on a stranger's house or a stranger's life. Insurance companies must make a determination about whether or not an applicant has an insurable interest. Insurance companies succeed in this determination all the time. The CEA has numerous provisions in which the distinction between a hedging derivatives position and a speculative derivatives position matters. For example, counterparties to some derivatives are often required to submit their derivative to a clearing organization. However, the "end-user exception" exempts the counterparties from this requirement if the derivative is one in which at least one party is a commercial entity using the contract to "hedge or mitigate commercial risk."³⁰ The U.S. CFTC also occasionally sets speculative position limits that any one entity can hold. "Bona fide hedging transactions or positions" do not count towards that limit.³¹ Additionally, the CEA defines an "eligible contract participant" to include any corporation, partnership or other organization with "total assets exceeding \$10,000,000."³² However, an organization with merely \$1 million in total assets qualifies as an "eligible contract participant" if it enters into a derivatives agreement "in connection with the conduct of the entity's business or to manage the risk associated with an asset or liability owned or incurred or reasonably likely to be owned or incurred by the

²⁷ This opinion has existed for over a century. *See, e.g.*, Patterson, *supra* note 9, at 844 ("[I]t is frequently assumed that a practical separation of hedging and wagering is impossible.").

²⁸ *See* Dennis W. Carlton, *Futures Markets: Their Purpose, Their History, Their Growth, Their Successes and Failures*, 4 J. FUTURES MARKETS 237, 242-43 (1984).

²⁹ JOHN LOWRY ET AL., *INSURANCE LAW: DOCTRINES AND PRINCIPLES* 177-216 (3d ed. 2011); William T. Vukowich, *Insurable Interest: When It Must Exist in Property and Life Insurance*, 7 WILLAMETTE L.J. 1, 1-11 (1971).

³⁰ 7 U.S.C. § 2(h)(7) (2012).

³¹ *Id.* § 6a(c). This section of the CEA also defines what constitutes a "bona fide hedging transaction or position" for this purpose and directs the CFTC to define "bona fide hedging transaction or position" further. *Id.*; *see also* 17 C.F.R. § 151.5 (2014) (setting out the CFTC's further definition of "bona fide hedging transaction or position").

³² 7 U.S.C. § 1a(18)(A)(v).

entity in the conduct of the entity's business."³³ Restrictions provided in Dodd-Frank's Volker rule and Lincoln push-out provision make exceptions for hedging transactions.³⁴ Indeed, the European Union recently prohibited the purchase of credit default swaps referencing European sovereigns unless the purchaser is hedging.³⁵ Generally accepted accounting principles also distinguish between hedging. If a derivatives position qualifies as a hedge, it may qualify for more favorable accounting treatment.³⁶

Additionally, it can often be assumed that if derivative counterparties effectuate the actual delivery of the underlying commodity, at least one of them is hedging a pre-existing risk. For example, when a wheat mill demands delivery of wheat purchased under its wheat future, it can be assumed it was indeed hedging against a decrease in the price of wheat. (It must be noted, however, that failure to deliver is not good evidence of speculation. The mill may have cash settled its wheat future and simply purchased wheat elsewhere, perhaps using proceeds it received under the future.) This assumption that physical delivery presumes a hedge, however, should not hold for assets that are highly liquid and/or have a clear market value such as currencies and public securities. In order to determine whether or not a derivative is a hedge, one must determine whether there is any pre-existing risks that one or both of the counterparties is (or can) hedge with the derivative. Effectuating actual delivery is merely evidence of the existence of a pre-existing risk.

A final note needs to be made regarding derivatives that hedge earlier speculative positions. If a person takes out a speculative derivatives position, he has incurred risk. His risks include market risk, i.e., the risk that the underlying metric will move against him; and

³³ *Id.* Additionally, the CEA subjects "major swap participants" to various rules and restrictions. Among the definitions of "major swap participant" is "any person who is not a swap dealer, and . . . maintains a substantial position in swaps for any of the major swap categories as determined by the Commission, *excluding . . . positions held for hedging or mitigating commercial risk . . .*" *Id.* § 1a(33)(A)(i)(I) (emphasis added).

³⁴ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 §§ 619, 716 (2010) [hereinafter Dodd-Frank Act].

³⁵ Commission Regulation 236/2012, of the European Parliament and of the Council of 14 March 2012 on Short Selling and Certain Aspects of Credit Default Swaps, art. 2(c), 2012 O.J. (L 86) 1, 7.

³⁶ *E.g.*, FIN. ACCOUNTING STANDARDS BD., STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 138: ACCOUNTING FOR CERTAIN DERIVATIVE INSTRUMENTS AND CERTAIN HEDGING ACTIVITIES (2000), *available at* http://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1218220124781&acceptedDisclaimer=true (amending Statement No. 133); FIN. ACCOUNTING STANDARDS BD., STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 133: ACCOUNTING FOR DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES (1998), *available at* http://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1218220124631&acceptedDisclaimer=true.

counterparty risk, the risk that his counterparty will fail to honor its contractual commitments.³⁷ That person might enter into another derivatives contract to lay off some or all of the risk incurred under the first contract. We might refer to his entrance into the second contract as “hedging his bets.”³⁸ As will be discussed more fully below, we should distinguish between hedging PSD bets, on the one hand, and hedging other risks, on the other.³⁹

II. PURELY SPECULATIVE DERIVATIVES

PSD contracts are zero-sum transactions in that there is no net gain or loss of overall economic wealth between the two counterparties. “The financial gain of any counterparty will be taken directly from the pocket of the other counterparty.”⁴⁰ In this sense, the aggregate economic value generated for the counterparties by a PSD is zero. “[W]hatever one party gains, the other loses.”⁴¹ But because each counterparty incurs transaction costs, opportunity costs, and an increase in the variance of their expected income, the expected value of a PSD is, in fact, negative.⁴² It is therefore economically irrational for anyone to participate in a PSD (unless there is entertainment value, as explained below).⁴³ PSDs also expose each counterparty to market and counterparty risk he would not otherwise have.⁴⁴

³⁷ U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 4, at 3 (defining counterparty risk). Counterparty risk is sometimes referred to as “credit risk” or “counterparty credit risk.” *E.g.*, DEP'T OF THE TREASURY, DETERMINATION OF FOREIGN EXCHANGE SWAPS AND FOREIGN EXCHANGE FORWARDS UNDER THE COMMODITY EXCHANGE ACT 4 (2012), available at <http://www.treasury.gov/press-center/press-releases/Documents/11-16-2012%20FX%20Swaps%20Determination%20pdf.pdf>; Norman Menachem Feder, *Deconstructing Over-the-Counter Derivatives*, 2002 COLUM. BUS. L. REV. 677, 687–89 (2002).

³⁸ Understanding that a PSD may result in a chain of bet hedging is also important when analyzing the formal contractual relationships between a retail client and her broker and their relationship with exchange-traded derivatives positions. At the request of a retail client, a broker might enter into a PSD with the client, and the broker will subsequently enter into an offsetting exchange-traded position, “hedging his bet” with the client, effectively putting the retail client in the speculative exchange-traded position.

³⁹ See *infra* Part III.

⁴⁰ Lynch, *PSDs*, *supra* note 7, at 84 (footnote omitted).

⁴¹ *Id.*

⁴² Additionally, because of the theory of marginal utility, and the cognitive bias of loss aversion, assuming equal wealth at the outset, the losses of losing counterparties are of greater value than the gains of winning counterparties.

⁴³ See *id.* at 84–93 (summarizing how the theory of rational expectations also concludes that entering into a PSD is irrational and suggesting that several cognitive biases lead people to nonetheless enter into PSDs). It would, however, be rational to enter into a PSD if there was clearly a sucker on the other side of the transaction. See *id.*

⁴⁴ Sometimes this risk, one that is created solely as a result of entering into a gamble that is a PSD, is referred to as “artificial risk.” *E.g.*, Shaheen Borna & James Lowry, *Gambling and*

Given that speculating through PSD contracts is an economically irrational enterprise devoid of aggregate economic benefit to the participants, diverts the participants' scarce resources from more productive uses, and exposes them to additional risk, one might ask why it should be permissible to allow anyone to enter into a PSD at all. But putting aside any argument that restrictive regulations may be desirable on purely paternalistic grounds, such restrictions may nonetheless be desirable because PSDs also impose significant negative externalities and other harms on society generally.

A. *Social Costs of Purely Speculative Derivatives*

Firms that engage in speculative derivatives activities are likely to be gambling with other people's money—the money of their equity holders and creditors. In fact, all stakeholders are harmed, including employees, suppliers, customers, business partners, retirees, and the local community where the firms operate. An entity that engages in the irrational and wealth-destroying activity of PSDs threatens the well-being of anyone who has an interest in that entity's continued existence and vitality.

Society generally also has an interest in the continued existence and vitality of systemically important entities. Many PSD counterparties are institutional investors—commercial banks, insurance companies, or other financial institutions and businesses. Many of these are quite large and systemically important. Society has an interest in ensuring that such institutions do not take on unnecessary, irrational, wealth-destroying risk.⁴⁵ Additionally, society has an interest in ensuring that the capital markets operate as optimally as possible,⁴⁶ but entities engaging in PSDs incur opportunity costs in that they have to devote capital and other

Speculation, 6 J. BUS. ETHICS 219, 220 (1987) (“[A] characteristic of gambling risk is that it is an artificial risk, i.e., a risk created by the gambling transaction itself.”). One might also refer to such risk as “synthetic” risk. Additionally, counterparties in derivatives contracts are exposed to both market risk, the risk that the underlying metric will move against them, and counterparty risk, the risk that their derivatives counterparty will not pay in the event that the underlying metric moves favorably. Although these risks are risks that even hedging counterparties incur, hedging counterparties get the benefit of laying off their pre-existing market risks, effectively eliminating their market risks all together.

⁴⁵ Eric A. Posner & E. Glen Weyl, *An FDA for Financial Innovation: Applying the Insurable Interest Doctrine to the Twenty-First-Century Financial Markets*, 107 NW. U. L. REV. 1307, 1312 (2013) (“[I]f speculative trading were suppressed, then systemic risk should decline as well because systemic risk is an outgrowth of the total risk in the financial system . . .”).

⁴⁶ Clearly no firm expects to lose on their PSDs, otherwise they would not enter into them; they expect to win. But because they are zero-sum transactions requiring the incurrence of transaction costs and opportunity costs, it is in the aggregate that PSDs are wealth-destroying, and thus irrational. See Lynch, *PSDs*, *supra* note 7, at 84–93.

resources into their PSD activities instead of potential wealth-generating activities.

Additionally, derivatives can be designed to mimic the economic returns of alternative investments and thus provide opportunities to engage in socially costly regulatory arbitrage.⁴⁷ Holding speculative derivative positions may also create undesirable conflicts of interest or moral hazards. For example, a life insurance policy held on the life of a stranger may incent the policyholder to kill the subject of the policy.⁴⁸ Holding such positions may also incentivize people to make decisions contrary to the best interests of socially productive firms. For example, creditors of a firm normally have an interest in the continued well-being of their firm. But holding a derivative that pays off in the event of the firm's demise (such as a credit default swap) may invert that interest and incentivize them to refrain from prudential monitoring or even to refuse to refinance or provide any debt relief.⁴⁹

B. Possible Social Benefit of Purely Speculative Derivatives

Derivatives markets are often praised for their ability to provide price discovery.⁵⁰ The participation of speculators in the derivatives markets—and presumably by extension, the existence of PSDs—is often touted as a way to enhance price discovery.⁵¹ Speculators are also said to provide liquidity for hedgers. However, if we contextualize the way and degree to which PSDs contribute to price discovery and hedger liquidity, it is not clear that these benefits outweigh PSDs' costs.⁵² Additionally,

⁴⁷ Derivatives-oriented financial engineering allows firms to circumvent tax laws, securities laws, insurance laws, banking laws, and accounting regulations. See generally Frank Partnoy, *Financial Derivatives and the Costs of Regulatory Arbitrage*, 22 J. CORP. L. 211, 232–35 (1997); see also Lynch, *PSDs*, *supra* note 7, at 119–20.

⁴⁸ Given the definition of “derivative” proposed by the Article, an insurance policy where the policyholder has such control over the outcome may or may not qualify as a “derivative”; the payout is not aleatory enough.

⁴⁹ See Frank Partnoy & David A. Skeel, Jr., *The Promise and Perils of Credit Derivatives*, 75 U. CIN. L. REV. 1019, 1034–36; see also Nelson D. Schwartz & Eric Dash, *Banks Bet Greece Defaults on Debt They Helped to Hide*, N.Y. TIMES, Feb. 25, 2010, at A1.

⁵⁰ E.g., Joel Hasbrouck, *One Security, Many Markets: Determining the Contributions to Price Discovery*, 50 J. FIN. 1175 (1995); Robert Kolb et al., *Futures Prices and Expected Future Spot Prices*, 2 REV. RES. FUTURES MARKETS 110, 111 (1983) (quoting Fisher Black as stating that “the role of price discovery may be the most important function of futures markets”); Victor K. Ng & Stephen Craig Pirrong, *Disequilibrium Adjustment, Volatility, and Price Discovery in Spot and Futures Markets* (Mitsui Life Fin. Research Ctr., Working Paper No. 92-3, 1992).

⁵¹ E.g., CHI. BD. OF TRADE, COMMODITY TRADING MANUAL 118 (1998) [hereinafter CHICAGO MANUAL] (“[S]peculators stabilize the market by dampening extreme price moves.”); DAVID LOADER, CLEARING AND SETTLEMENT OF DERIVATIVES 3 (2005); Borna & Lowry, *supra* note 44, at 222; Hazen, *Rational Investments, Speculation, or Gambling?*, *supra* note 11, at 1007 n.113.

⁵² Lynch, *PSDs*, *supra* note 7, at 108–18.

many have suggested that speculation in the derivatives markets—and again, presumably by extension, the existence of PSDs—creates other positive externalities. However, it is doubtful that there are any positive externalities other than price discovery and possibly liquidity for hedgers.⁵³ Price discovery and hedger liquidity are discussed below.

1. Price Discovery

“Price discovery” refers to “the process by which trading in a market incorporates new information and market participants’ expectations [of supply and demand] into asset prices.”⁵⁴ Price discovery

⁵³ It is also often observed that derivatives speculation has led to a particularly large derivatives industry and such economic activity is desirable. *See, e.g.*, U.S. DEP’T OF TREASURY, BLUEPRINT FOR A MODERNIZED FINANCIAL REGULATORY STRUCTURE 2–4, 27 (2008), available at <http://www.treasury.gov/press-center/press-releases/Documents/Blueprint.pdf>; Colleen M. Baker, *Regulating the Invisible: The Case of Over-the-Counter Derivatives*, 85 NOTRE DAME L. REV. 1287, 1305 (2010). Rules that would limit the ability to speculate including, obviously, to speculate with PSDs, would result in a contraction of the financial industry and a contraction of the economic activity that results from this industry. The U.S. government has repeatedly feared such a result. *See, e.g.*, 7 U.S.C. § 6a(a)(2)(C) (2012) (“In establishing [speculative trading limits on derivatives whose underlyings are certain physical commodities, the CFTC] shall strive to ensure that trading on foreign boards of trade in the same commodity will be subject to comparable limits and that any limits to be imposed by the [CFTC] will not cause price discovery in the commodity to shift to trading on the foreign boards of trade.”). However, the increased economic activity most benefits industry intermediaries pushing derivatives products. Regardless of our opinion of intermediaries, however, the value of the spillover economic benefits resulting from PSD activity must be assessed in the context of its economic and non-economic costs. And one of the most significant costs associated with PSDs is those that engage in them are dedicating resources away from the real economy.

Other observers have defended the existence of a large and vibrant OTC derivatives market by noting that it serves as an incubator for socially beneficial financial innovation, some of which might eventually become standardized, commoditized, and offered on derivatives exchanges. *E.g.*, DARRELL DUFFIE, ADA LI & THEO LUBKE, FEDERAL RESERVE BANK OF NEW YORK STAFF REPORTS, NO. 424: POLICY PERSPECTIVES ON OTC DERIVATIVES MARKET INFRASTRUCTURE 10 (2010), available at http://www.newyorkfed.org/research/staff_reports/sr424.pdf; Baker, *supra*, at 1305; *see also* 7 U.S.C. § 6(c)(1) (stating that the CFTC may exempt certain transactions and persons from CEA regulations “[i]n order to promote responsible economic or financial innovation”). However, such a conclusion is itself speculative, for it is impossible to know what kinds of innovative risk-hedging derivatives might have been developed, which ones might not have been developed, and which ones would never have materialized, in the absence of the PSD practice field.

It may also be possible that counterparties who win their derivatives bets more than they lose them are generally able to invest their wealth in the real capital markets more efficiently than counterparties who more often lose their bets. There appears to be no direct evidence, however, that this is true. *See generally* Lynch, *PSDs*, *supra* note 7, at 119–23 (discussing and evaluating alleged benefits of PSDs).

⁵⁴ Christopher L. Culp, *The Social Functions of Financial Derivatives*, in FINANCIAL DERIVATIVES: PRICING AND RISK MANAGEMENT, *supra* note 3, at 57–59; Hasbrouck, *supra* note 50, at 1175 (defining price discovery as “the impounding of new information into the security price”).

occurs in both the “spot” (or “cash”) markets and exchange-traded futures markets. Whereas the spot markets provide current prices for today’s assets,⁵⁵ price discovery through the futures markets refers to the discovery of both current⁵⁶ and future spot prices.⁵⁷ More simply, the market price of futures contracts for delivery of a particular asset at some particular time in the future reflects the current market’s expectation about what that asset’s spot price will be at that future time.⁵⁸

Indeed, the notion of *price* discovery can be understood more broadly as a way to capture and aggregate the wisdom of the market about the future value of any metric (e.g., interest rates, currency exchange rates, inflation rates, debtor creditworthiness,⁵⁹ snowfall amounts,⁶⁰ football game spreads) or the likelihood of any event (e.g., the likelihood of climate change, the outcome of elections,⁶¹ and the chances of a terrorist attack⁶²). So the word “price” in the context of price discovery should be understood to mean any value, metric, or outcome percentage, not simply the monetary price for something with cash value.

⁵⁵ T.V. SOMANATHAN, *DERIVATIVES* 13 (reprt. 2008) (1998).

⁵⁶ CHANCE & BROOKS, *supra* note 22, at 12; JOSHUA V. ROSENBERG & LEAH G. TRAUB, FEDERAL RESERVE BANK OF NEW YORK STAFF REPORTS, NO. 262: PRICE DISCOVERY IN THE FOREIGN CURRENCY FUTURES AND SPOT MARKET (rev. ed. 2008), *available at* http://www.newyorkfed.org/research/staff_reports/sr262.pdf.

⁵⁷ KOLB & OVERDAHL, *supra* note 23, at 24–25; Kenneth D. Garbade & William L. Silber, *Price Movements and Price Discovery in Futures and Cash Markets*, 65 *REV. ECON. & STAT.* 289 (1983).

⁵⁸ MANISH BANSAL & NAVNEET BANSAL, *DERIVATIVES AND FINANCIAL INNOVATIONS* 56–57 (2007); CHICAGO MANUAL, *supra* note 51; DIMITRIS N. CHORAFAS, *INTRODUCTION TO DERIVATIVE FINANCIAL INSTRUMENTS: OPTIONS, FUTURES, FORWARDS, SWAPS, AND HEDGING* 282 (2008); LOADER, *supra* note 51, at 13; ROSENBERG & TRAUB, *supra* note 56. It is also possible to extract the market’s expectation of future price movements from looking at the prices and volatility of exchange-traded options. CHANCE & BROOKS, *supra* note 22, at 13. Formally there is a difference between the “futures price” and the “expected future (spot) price.” Each incorporates slightly different considerations. For example, each incorporate cost of carry differently. *See Culp, supra* note 54, at 57–59.

⁵⁹ *See* Mark J. Flannery et al., *Credit Default Swap Spreads as Viable Substitutes for Credit Ratings*, 158 *U. PA. L. REV.* 2085 (2010). *But see* Posner & Weyl, *supra* note 45, at 1333 (disputing the capacity of credit default swaps to provide positive informational externalities, in part because bond yield spreads already adequately provide such measures).

⁶⁰ At times, orange juice concentrate futures prices predict the weather in Florida better than meteorologists do. Richard Roll, *Orange Juice and Weather*, 74 *AM. ECON. REV.* 861, 871 (1984).

⁶¹ *See* PAUL GOMME, FEDERAL RESERVE BANK OF CLEVELAND, IOWA ELECTRONIC MARKETS (2003), *available at* <https://www.clevelandfed.org/research/commentary/2003/0415.pdf>.

⁶² A terrorism future was proposed by the U.S. Department of Defense as a way to use the wisdom of the market and the market’s ability to ferret out information to help the Defense Department predict and thwart terrorist attacks. *DARPA - FutureMAP Program - Policy Analysis Market (PAM) Cancelled*, INFO. WARFARE SITE, <http://www.iwar.org.uk/news-archive/tia/futuremap-program.htm> (last visited Oct. 24, 2014). Such event derivatives are often said to exist on “prediction markets.”

Futures prices are used extensively, especially by those engaged in commerce and the real economy. Since futures markets help firms and individuals make better estimates of future spot prices, future rates, and the likelihood of future events, these firms and individuals can make more informed consumption, production, investment, financing, contracting, and marketing decisions.⁶³ Indeed, because of their usefulness to the business community and because accurate prices generally contribute to the most efficient use of resources, the price discovery function of the derivatives markets is often said to be a “public good.”⁶⁴

Price discovery is indeed a public good provided by derivatives markets. However, it is necessary to temper our enthusiasm about the value of this public good—and, by extension, PSDs’ contribution to this public good—by making the following four observations. First, valuable price discovery generally occurs only on exchanges, where supply and demand estimates can be aggregated and disseminated to the public. Unless their contracts are standardized and their pricing information is aggregated, i.e., they become more like exchanges, the over-the-counter (OTC) market contributes little to price discovery.⁶⁵ Second, exchange derivatives contracts which trade in little volume provide little price discovery information, and indeed, many commodities (and indices, rates, quantities etc.) are not represented by exchange-traded derivatives contracts at all. Nevertheless, consumers and producers of these commodities have been able to survive in their competitive environments without the assistance of derivatives-originated price discovery.⁶⁶

⁶³ See Culp, *supra* note 54, at 58 (“Reliable, public prices that reflect current information are essential in guiding the invisible hand for which the free price system is held in such high regard.”); GUPTA, *supra* note 23, at 35; Hazen, *Rational Investments, Speculation, or Gambling?*, *supra* note 11, at 1007–08 (“Society benefits from the resulting fairer and more stable prices—consumers, as a group, and producers are in a better position to operate smoothly in the market environment.”); KOLB & OVERDAHL, *supra* note 23, at 25; Posner & Weyl, *supra* note 45, at 1343–44.

⁶⁴ E.g., GUPTA, *supra* note 23, at 90; KOLB & OVERDAHL, *supra* note 23, at 25; Hasbrouck, *supra* note 50, at 1175. Futures exchanges also make money by selling details of futures prices. BRETT F. CARVER, *WHEAT: SCIENCE AND TRADE* 553 (2009); CHICAGO MANUAL, *supra* note 51, at 23; CHORAFAS, *supra* note 58, at 280; Culp, *supra* note 54, at 57, 59.

⁶⁵ OTC derivatives are non-standardized derivatives which are not traded on exchanges but rather are negotiated and entered into bi-laterally in private forums. See generally DUFFIE, LI & LUBKE, *supra* note 53, at 1; GARRY J. SCHINASI ET AL., *MODERN BANKING AND OTC DERIVATIVES MARKETS* 13 (2000). Dodd-Frank has several provisions that will encourage the establishment of information transmission mechanisms so that aggregate OTC derivatives information will be publically available.

⁶⁶ It is illegal for any board of trade in the United States to offer onion futures. 7 U.S.C. § 13-1 (2012). Other examples of commodities that have very small or no futures markets include silk, avocados, and eggs.

Third, spot prices alone largely reflect current market expectations. One way to measure the magnitude of the price discovery function of futures markets relative to the price discovery function of the spot market is by determining whether new information is reflected first in changed futures prices or in changed spot prices and then noting how long it takes for the lagging market to reflect the new information after the leading market reflects it.⁶⁷ Many empirical studies have shown that many futures markets lead (or “dominate”) spot markets in impounding new information into new prices.⁶⁸ But most empirical studies have demonstrated that derivatives exchanges dominate the spot markets by at most a few hours and more typically by mere minutes, and sometimes not at all.⁶⁹ And some studies have shown that a few spot markets dominate the futures markets.⁷⁰ The public good of this degree of the futures market’s dominance is, as Professor Stout has stated, “of debatable importance.”⁷¹ Or, as Professors Posner and Weyl have noted, “speeded-up disclosure of information is socially valuable only when it helps people plan in the real economy.”⁷²

Fourth, the notions that (i) the market correctly and efficiently impounds new information into derivatives prices and (ii) the marketplace uses such price discovery to efficiently allocate scarce resources within the marketplace both depend on an assumption that the market is itself informationally efficient and rational. In the last twenty years, however, behavioral finance theorists have poked notable holes in the efficient market hypothesis. And, indeed, many empirical studies have found evidence suggesting that derivatives markets

⁶⁷ Rong Chen, *Unbiased Estimation, Price Discovery, and Market Efficiency: Futures Prices and Spot Prices*, 28 *SYS. ENGINEERING: THEORY & PRAC.* 2, 2 (2008) (“The price discovery function of futures markets should be defined as the lead-lag relationship between the current futures prices and the current spot prices.”); Garbade & Silber, *supra* note 57; Hasbrouck, *supra* note 50, at 1175.

⁶⁸ Futures markets often dominate spot markets because futures markets tend to have certain attributes that facilitate information impounding including lower trading costs, greater transparency, no restrictions on assuming short positions, faster trade execution, and a greater ability to use leverage. Futures markets are also more centralized than most spot markets, so new information about many commodities is more readily funneled through the futures markets than through the spot markets. Culp, *supra* note 54, at 58–59; Ananth Madhavan, *Market Microstructure: A Survey*, 3 *J. FIN. MARKETS* 205, 241 (2000).

⁶⁹ See Lynch, *PSDs*, *supra* note 7, at 111 (citing to numerous studies identifying commodities where their futures markets dominate their spot markets).

⁷⁰ See *id.* (citing to numerous studies identifying commodities whose spot markets dominate their futures markets).

⁷¹ Lynn A. Stout, *Betting the Bank: How Derivatives Trading Under Conditions of Uncertainty Can Increase Risks and Erode Return in Financial Markets*, 21 *J. CORP. L.* 53, 65 (1995); see also Stout, *Origin of the Credit Crisis*, *supra* note 11, at 30 (questioning the value of quickly impounding information into equity security prices). There is also evidence that the futures markets influence spot market prices (and vice versa), and untangling and measuring the relationship is difficult. See Culp, *supra* note 54, at 65–66.

⁷² Posner & Weyl, *supra* note 45, at 1321.

experience price bubbles; severe underpricings; panic-driven, short-term price spikes and troughs; and generally unstable prices.⁷³ Such irrationality should at least partially undermine our confidence in the value of using futures prices to predict future spot prices.⁷⁴

Nevertheless, it is largely believed that the forecasts of future spot prices that can be drawn from the futures market “compare in accuracy quite favorably with other types of forecasts”⁷⁵ and are generally regarded as being the best, or “one of the best estimates possible.”⁷⁶

It is popularly believed that the participation of speculators in the derivatives markets enhances price discovery. This belief appears to be based on the assumption that hedgers and speculators as a group impound more and better information about future spot prices, and do it more quickly, than hedgers would do alone. At least some commentators have challenged this belief. As Borna and Lowry have written, “[t]he theory also assumes that the speculators can predict *non-speculative factors* in the market better than the average man. There is no concrete evidence proving this.”⁷⁷

And, indeed, the markets may not be so informationally efficient, and the “wisdom of the markets” may not be so wise. However, if derivatives markets do indeed have the capacity to be informationally efficient and if speculators do have better than average foresight, then permitting and encouraging purely speculative derivatives may very well contribute to price discovery, even considerably. But, as I have written elsewhere,

[t]he issue regarding PSD contracts and their relation to price discovery . . . is not whether or not they contribute to price discovery, but whether or not it is necessary, given PSDs’ costs and potential harms, to permit them for the purpose of augmenting the price

⁷³ See GUPTA, *supra* note 23 (“Most of the speculative activities are ‘professional speculation’ or ‘movement trading’ which lead to destabilization in the market. Sudden and sharp variations in prices have been caused due to common, frequent and widespread consequence of speculation.”); Chakriya Bowman & Aasim M. Husain, *Forecasting Commodity Prices: Futures Versus Judgment* (IMF Working Paper No. 04/41, 2004).

⁷⁴ See Bowman & Husain, *supra* note 73, at 4 (“Researchers have come to varying conclusions regarding the efficiency of commodity futures markets and whether futures prices are unbiased predictors of future spot prices.”); Hasbrouck, *supra* note 50, at 1184 (“[N]othing in this approach measures in any absolute sense the total information that is impounded in prices.”); Kolb, et al., *supra* note 50, at 119 (“[N]o evidence was found to suggest that futures prices typically equal the expected spot price either.”).

⁷⁵ KOLB & OVERDAHL, *supra* note 23, at 25.

⁷⁶ *Id.* at 25, 150 (“[T]he accuracy of futures forecasts is not that good, but it is certainly better than the alternatives”); see also Bowman & Husain, *supra* note 73, at 1 (“The analysis indicates that on the basis of statistical- and directional-accuracy measures, futures-based models yield better forecasts than historical-data-based models or judgment, especially at longer horizons.”).

⁷⁷ Borna & Lowry, *supra* note 44, at 222.

discovery function, and, if so, under what circumstances. In other words, do we have enough price discovery [within the derivatives markets and the spots markets] without the contribution of PSD contacts? It is not clear that there is an easy answer to this question. However, given that derivatives markets tend to dominate the cash markets by only mere minutes or hours, when they dominate at all, it would seem doubtful that the price discovery costs associated with eliminating PSDs would be significant.⁷⁸

2. Liquidity for Hedging

One of the most powerful arguments in support of speculation in the derivatives marketplace is that speculators add liquidity to the hedging market.⁷⁹ This is true of speculation generally, but in the case of PSDs, both counterparties are speculators, and, consequently, with each PSD entered into, the pool of potential counterparties for would-be hedgers decreases. In other words, PSDs can be expected to *decrease* liquidity for hedgers.⁸⁰ However, if PSDs were prohibited or unenforceable, it is conceivable that speculators would exit the market (generally or with regard to particular underlyings), leaving very few potential counterparties for would-be hedgers.⁸¹ This may be an undesirable result, at least if there were not reasonably available alternative ways for would-be hedgers to hedge.⁸²

⁷⁸ Lynch, *PSDs*, *supra* note 7, at 118 (footnote omitted); *see also* Lynn A. Stout, *Regulate OTC Derivatives by Deregulating Them*, 32 REG. 30, 33 (2009) (“[T]here is virtually no empirical evidence to establish the value of the supposed liquidity and ‘price discovery’ benefits from derivatives speculation, much less evidence that shows the value of those benefits exceeds the enormous social cost of the systemic risk created by derivatives speculation.”).

⁷⁹ CARVER, *supra* note 64, at 554; CHICAGO MANUAL, *supra* note 51; Hazen, *Disparate Regulatory Schemes*, *supra* note 11, at 429; Hazen, *Rational Investments, Speculation, or Gambling?*, *supra* note 11, at 1019.

⁸⁰ *See generally* Lynch, *PSDs*, *supra* note 7, at 118–19.

⁸¹ There appears to be little or no research clearly suggesting that if PSDs were prohibited, unenforceable, or limited in any way that liquidity for hedgers would decrease significantly.

⁸² *See* Posner & Weyl, *supra* note 45, at 1332, 1335 (suggesting that there are at times alternative ways to hedge without having to rely on a derivative); *see also* Saule T. Omarova, *License to Deal: Mandatory Approval of Complex Financial Products*, 90 WASH. U. L. REV. 63, 118–19 (2012) (suggesting that it should be less likely that any proposed derivative contract be approved for exchange trading if the risk(s) that can be hedged using such a contract could be hedged by alternative available methods).

C. Entertainment Utility

As stated above and argued elsewhere, gambling transactions (as that term is commonly understood) are derivatives transactions.⁸³ In any gambling transaction the amount and direction of any payoff between the parties, like any derivative, is dependent on some future, uncertain event or metric. A particular team may win a game or a certain set of cards may be dealt. A certain horse may win, place or show, or certain lottery numbers may be drawn. A slot machine may show three bars or (more likely) not. In any of these cases, like in any derivative, two counterparties enter into an agreement to make the bet.

And except in rare circumstances when at least one counterparty is gambling in order to hedge a pre-existing risk,⁸⁴ gambling transactions are purely speculative derivatives. When one plays a slot machine in Las Vegas, neither he nor the casino is engaged in a hedging transaction. When one plays poker with friends, none of the counterparties to that agreement are laying off risk. Quite the contrary, if the game is a fair game, where the expected payout to both parties is equal, all counterparties are creating and incurring new risk. Likewise, if someone without U.S. Dollar-British pound exchange risk enters into a dollar-pound exchange future with a counterparty without exposure to fluctuations in the dollar-pound exchange rate, they are engaged in a gambling transaction—a gambling transaction on a currency exchange rate. These are all PSDs.

Although these transactions are zero-sum in the sense that the money won (lost) by one counterparty is taken from (given to) the other counterparty, without any resulting wealth creation in the aggregate—they are not necessarily zero-sum transactions because of the possible entertainment value for one or both participants.⁸⁵ Indeed, one of the traditional and perhaps most persuasive arguments justifying the

⁸³ See Lynch, *PSDs*, *supra* note 7, at 123–25; Lynch, *Twenty-First Century Derivatives*, *supra* note 10, at 45–46, 49–50.

⁸⁴ See Hazen, *Disparate Regulatory Schemes*, *supra* note 11, at 434–39 (describing ways that sports bets can hedge the pre-existing risks of sports owners and city merchants); Thomas Lee Hazen, *Filling a Regulatory Gap: It Is Time to Regulate Over-the-Counter Derivatives*, 13 N.C. BANKING INST. 123, 126–27 (2009) [hereinafter Hazen, *Filling a Regulatory Gap*] (describing how the owner of a hotel located near a sports stadium can bet against the local team to hedge against the risk that the team will not make the playoffs jeopardizing the hotel's opportunities to rent rooms); Lynch, *Twenty-First Century Derivatives*, *supra* note 10, at 42–43.

⁸⁵ Despite this Article's articulation of the entertainment utility of casino gambling, it is beyond the scope of this Article to advocate for or against casino gambling. Furthermore, it must not be inferred that all activities commonly referred to as gambling, nor all instances of such gambling, are entertaining, enjoyable, or socially beneficial. Many gamblers gamble because of compulsion or addiction, or because loss aversion bias prevents them from accepting their gambling losses. And gamblers subject their own stakeholders (e.g., their families) to risk.

legality of casino gambling is that it provides entertainment value to those who gamble.⁸⁶

D. *Proposal for Purely Speculative Derivatives*

Except when they provide entertainment utility, PSDs are economically irrational transactions that destroy wealth (in the aggregate). They harm and otherwise impose significant negative externalities on society by (i) creating unnecessary risk for counterparties' stakeholders, (ii) increasing systemic risk, (iii) providing an avenue for regulatory arbitrage, (iv) diverting the efficient use of capital and other resources from the real economy, and (v) possibly creating undesirable conflicts of interest and moral hazard.⁸⁷ PSDs arguably create only limited positive externalities, specifically in the form of price discovery and liquidity for hedgers—and the extent of their price discovery and liquidity value is debatable. PSDs are, in a word, problematic, and as a result should be discouraged and generally deemed unenforceable except in limited circumstances.

III. TOWARDS A COMPREHENSIVE DERIVATIVES REGULATORY SCHEME

What follows is a proposed regulatory scheme describing when it should be possible to form derivative contracts and when they should and should not be enforceable. The scheme is centered around the notion that the most relevant taxonomy for understanding derivatives and their economic effects is one which separates derivatives into one of three categories: (i) hedger-hedger derivatives, (ii) hedger-speculator derivatives, and (iii) speculator-speculator derivatives, i.e., PSDs.⁸⁸

It is beyond the scope of this Article to lay out this proposal in great detail, but it is presented as a natural outgrowth of this hedger-speculator taxonomy and in particular as a way to eliminate or reduce the social costs associated with PSDs while still allowing their potential

⁸⁶ E.g., PETER COLLINS, GAMBLING AND THE PUBLIC INTEREST 42 (2003); WILLIAM N. THOMPSON, GAMBLING IN AMERICA: AN ENCYCLOPEDIA OF HISTORY, ISSUES, AND SOCIETY 126, 129 (2001); Hazen, *Filling a Regulatory Gap*, *supra* note 84, at 125 (“The only benefit [to society] attributed to gambling is the entertainment it provides.”).

⁸⁷ See Posner & Weyl, *supra* note 45, at 1309 (“[G]ambling may have some ancillary benefits in improving the information in market prices. However, it is overwhelmingly a negative-sum activity, which, in the aggregate, harms the people who engage in it, and which can also produce negative third-party effects by increasing systemic risk in the economy.”).

⁸⁸ Recall that as discussed above in Part II.C.2, a derivatives contract in which one or both counterparties are both hedging and speculating can be analyzed as comprising two or more independent contracts and enforced (or not) as such.

positive contributions (e.g., price discovery) to be harnessed when necessary or desirable.⁸⁹ This proposal also serves as an invitation for further analysis, and as a way to preface this Article's later analysis of how PSDs are regulated in the United States.

A. *The Hedger-Hedger Derivative*

Hedger-hedger derivative contracts eliminate risk for both counterparties. Whatever one counterparty loses (gains) under the terms of the contract he gains (loses) within the real market he is hedging against. Although in practice hedger-hedger contracts may be relatively rare compared to other derivatives contracts,⁹⁰ they nevertheless reduce overall risk in the marketplace. And although each counterparty incurs counterparty risk, the aggregate risk is not greater than—and at most can only be equal to—the overall market risk hedged under the contract. Indeed, counterparty risk may actually be quite small or non-existent since whatever value must be paid by the losing counterparty can be taken from the gains that that losing counterparty made in the real market of the underlying. Hence, hedger-hedger derivatives contracts reduce overall risk in the marketplace and should therefore be subject to the least amount of regulation. Parties should be able to enter into hedger-hedger derivative contracts as freely as they can enter into any legal non-derivative contract. Such contracts can be entered into either on traditional derivatives exchanges or in the OTC market and should be as enforceable as any normal contract.⁹¹

⁸⁹ Recently a few legal scholars have made proposals on how to regulate derivatives with very similar goals in mind. Some recommend ex ante approval of derivative contracts before they are made available in the marketplace. *E.g.*, Posner & Weyl, *supra* note 45, at 1322 (proposing that any proposed financial product undergo a test to see whether it “advances social welfare or not. . . . [T]he answer to this question depends on how the financial product would affect the incidence of insurance (or gambling) and capital allocation (or informational racing), and whether the financial product would generate positive informational externalities.”); *see also* Omarova, *supra* note 82 (proposing a similar regulatory regime requiring the pre-marketing approval of complex financial products and proposing that such products must meet an “economic purpose” test and must not pose an unacceptable level of systemic risk nor lead to excessive speculation nor raise significant public policy concerns).

⁹⁰ Common examples include forward contracts between a commodity producer and a commodity consumer or foreign currency swaps between two parties, one of which has a risk in the decline of a particular foreign currency exchange rate and the other of which has a risk in the increase in that foreign currency exchange rate. *See* CHANCE & BROOKS, *supra* note 22, at 420–22.

⁹¹ *See also* Lynch, *PSDs*, *supra* note 7, at 77–78.

B. *Hedger-Speculator Derivatives Contract*

Hedger-speculator contracts are not necessarily zero-sum transactions or wealth-destroying, and are presumably wealth-generating. A properly priced contract with a speculating counterparty that presents less than significant counterparty risks decreases aggregate risk in the marketplace. Hedger-speculator contracts shift market risk from those that bear it but are less willing or able to bear it to those who are more willing or able to do so. Hedger-speculator contracts act like insurance contracts. Indeed, the insurance industry model is based on the hedger-speculator contract, where the insurance company is the speculator and the policyholder is the hedger. Recall that in order to purchase an insurance policy you must have an insurable interest.⁹²

Additionally, it is important to understand that although the speculating counterparty in such a contract must bear the seemingly pejorative label of “speculator,” it is not necessarily irrational to engage in speculation across from a hedging counterparty. Under a model known as the insurance (or risk hedging) model, the terms of the contract, perhaps the pricing, may be more favorable to the speculator than the expected losses anticipated by the hedger would justify in a perfectly informed and efficient market. The hedger may conclude that the risk-hedging value he receives is worth the premium to be paid to the speculator. In other words, both the hedger and the speculator receive value in the transaction. Under a model known as the information arbitrage model, the speculator would not necessarily receive a price premium but would instead act on what he believes to be his superior predictive skills as compared to the hedger’s. In this model hedgers are presumed not to be engaging in significant information gathering and risk and pricing analysis—they just want to lay off their risk and are willing to pay a price for that. Therefore, the speculator is not faced with the troubling fact of an equally rational and informed counterparty with different expectations.⁹³

Because they have wealth-generating capacity, hedger-speculator contracts should typically be permitted and enforceable, but perhaps

⁹² See *supra* note 29 and accompanying text.

⁹³ See generally J.R. HICKS, *VALUE AND CAPITAL* (1946); Sanford Grossman & Joseph Stiglitz, *On the Impossibility of the Informationally Efficient Markets*, 70 *AM. ECON. REV.* 393, 393 (1980); Jack Hirshleifer, *The Theory of Speculation Under Alternative Regimes of Markets*, 32 *J. FIN.* 975, 975 & n.1 (1977); Holbrook Working, *Futures Trading and Hedging*, 43 *AM. ECON. REV.* 314 (1953); see also Stout, *Dangerous Optimism*, *supra* note 20, at 1186–89; Lynn A. Stout, *Why the Law Hates Speculators: Regulation and Private Ordering in the Market for OTC Derivatives*, 48 *DUKE L.J.* 701, 735 (1999) [hereinafter Stout, *Why the Law Hates Speculators*] (“[T]he contemporary economic literature appears to incorporate two distinct explanations for speculative trading: risk hedging and information[al] arbitrage.”).

with certain limitations. These limitations would recognize that hedger-speculator derivative contracts operate as private counterparty insurance policies outside the heavily regulated insurance industry. I propose that hedger-speculator derivatives be permissible and enforceable if they are formed within a well-regulated industry where counterparty risk is low and/or when it can be expected that the speculating parties have sufficient information gathering and analytical capacity. Such industries could include the traditional, heavily-regulated insurance industry, and such derivatives could be executed on well-regulated derivatives exchanges and subjected to mandatory clearing.⁹⁴ Because of the counterparty risks involved, such contracts should perhaps be unenforceable if they are formed in the OTC market, unless the speculating counterparty meets certain minimum sophistication and capital requirements.⁹⁵

C. Purely Speculative Derivatives

Purely speculative derivatives, unless they provide entertainment utility, are irrational, wealth-destroying contracts. They create potentially extensive negative externalities, including increasing systemic risk. They render the capital markets less efficient. As a result, I propose they should be discouraged and deemed void and unenforceable for public policy reasons.⁹⁶ Exceptions could be made when it is determined that permitting and enforcing PSDs in specific circumstances would provide desirable positive externalities or other benefits that clearly outweigh their negative externalities and other costs or when society expressly chooses to allow people to enjoy engaging in certain PSDs.

Regarding enforcing PSDs to harness their potential positive externalities, two such circumstances might exist—supplementing price discovery (including event prediction for public risk management) and increasing hedger liquidity on derivatives exchanges. If it is determined, for example, that more futures referencing some specific commodity,

⁹⁴ For a discussion of the mechanics and benefits of clearing, see *infra* note 108 and accompanying text.

⁹⁵ *But see* Felicia Smith, *Madoff Ponzi Scheme Exposes "The Myth of the Sophisticated Investor,"* 40 U. BALT. L. REV. 215 (2010).

⁹⁶ *See* Lynch, *PSDs*, *supra* note 7, at 125–29 (originally describing such a regulatory scheme for PSDs); *see also* Posner & Weyl, *supra* note 45, at 1317 (describing a similar regulatory approach with a similar goal, a goal “to deter financial gambling because it is welfare reducing and contributes to systemic risk”). *See generally* Adam B. Badawi, *Harm, Ambiguity, and the Regulation of Illegal Contracts*, 17 GEO. MASON L. REV. 483, 512–13 (2010) (“When contracts clearly violate a restriction, the application of the non-enforcement remedy can be expected to exert a strong deterrent effect.”).

metric, index, or event probability (or class of such underlyings) is necessary and desirable to supplement the price discovery process, it could be appropriate to permit and enforce PSD futures referencing that commodity. By opening up the market to such PSDs, it can be expected that more market participants will more quickly impound information about the future spot level of the underlying.⁹⁷ Or, if it is determined that by refusing to enforce PSDs the state inadvertently has dried up the pool of speculators on exchanges with whom hedgers can contract because most or all potential speculators exit the market altogether, then by permitting them to execute PSDs on exchanges, they may return to participate in the market and make themselves available to contract with hedgers.

The second exception to the void-for-public-policy rule exists when PSDs provides entertainment utility. PSDs, in such cases, may be rational and not necessarily wealth-destroying. Entertainment PSDs should be enforceable if the democratic process determines that such entertainment utility is worth providing.⁹⁸ Arguably casinos, lotteries, sports betting, horse racing, and the like provide such entertainment utility.

Absent entertainment, absent a clear showing of the existence of desirable positive externalities, and absent a showing that the overall net social effect is positive—and absent an express decision by legislators and/or regulators to consequently permit them—the default rule should be that PSDs be void for public policy and therefore unenforceable.

This notion of the non-enforceability of PSDs harkens back to both the common law against enforcing “difference contracts” and the “economic purpose” requirement of the CFTC. The common law rule against difference contracts is the common law rule against the enforcement of contracts wherein the two counterparties bet on opposite outcomes.⁹⁹ This rule was most notably articulated by the

⁹⁷ See Posner & Weyl, *supra* note 45, at 1327 (articulating a similar analysis: “Proving that additional information is revealed is not sufficient: it must also be shown that this information is useful to individuals in the economy in their planning and in government decisionmaking.”).

⁹⁸ It is beyond the scope of this Article to discuss whether the moral implications and all the harms associated with such gaming—e.g., addiction, harm to gamblers’ family and other stakeholders, the potential facilitation of crime—trump the entertainment value such PSDs can provide. Thus, whether or not such PSDs should in fact be enforceable in any society is a much more difficult question to answer than merely pointing out that they can provide entertainment utility.

⁹⁹ *Irwin v. Williar*, 110 U.S. 499, 510 (1884). The *Irwin* court, and most if not all courts during the late 19th and early 20th centuries, actually conflated two very different issues: the hedging-speculating dichotomy, on one hand, and delivery of the underlying, on the other. The *Irwin* court seems to have assumed that if delivery does not occur, parties must be speculating. *Id.* Hedging, however, need not result in actual delivery. This conflation persisted within American jurisprudence for decades. *E.g.*, *Mullinix v. Hubbard*, 6 F.2d 109 (8th Cir. 1925) (stating that a

Supreme Court in 1884, “[I]f, under guise of [a contract to deliver goods at a future day], the real intent be merely to speculate in the rise or fall of prices . . . the whole transaction constitutes nothing more than a wager, and is null and void.”¹⁰⁰ The application of the version of the rule against different contracts proposed here, that PSDs be deemed unenforceable, highlights the fact that any court determining whether or not a contract is a PSD would necessarily have to investigate ex post the market and economic risks held by the contract counterparties at the time they executed the contract and then determine whether or not the contract hedges any of their respective risks and to what extent.

Prior to the enactment of the Commodity Futures Modernization Act in 2000, a regulated exchange was required to obtain permission from the CFTC in order to offer any new, standardized derivative contract, and the CFTC would apply an “economic purpose” test when determining whether or not to grant such permission.¹⁰¹ Although the CFTC did not impose a rule against PSDs per se, it did require that derivatives offered on regulated exchanges offered some potential economic purpose beyond mere gambling. For example, if the proposed derivative could be used to hedge market risk or if the derivative operated to provide desirable price discovery, it would be likely that the derivative would serve an economic purpose and would be approved. A derivative that would not likely serve any economic purpose, e.g., a derivative referencing the outcome of a dice throw, could only be used for gambling and would not be approved. Once approved, however, that

contract for the future delivery of a commodity may only be declared a void wagering contract if both counterparties had a mutual “sinister intent” of not effectuating actual delivery); *Ware v. Pearsons*, 173 F. 878 (8th Cir. 1909) (finding mutual intent not to effectuate actual delivery and thus declaring the contract void). The requirement that there be an absence of an intention to not deliver led derivatives speculators to include delivery provisions in derivatives contracts while nonetheless providing for the possibility of settling the contract. This strategy led many courts to generally enforce PSD contracts which had a deliverability provision, even though such contracts were normally settled. See FABIAN, *supra* note 23, 193–200 (showing that in the 19th and early 20th centuries, the “respectable” derivatives exchange industry provided for the possibility of actual delivery in every futures contract (the contract “contemplated” actual delivery) although actual delivery was rarely effectuated and this contemplation was most often a legal fiction). Other courts carved out an “indemnity” exception to the rule against difference contracts. This indemnity exception allowed the enforcement of a contract in which the underlying is not delivered if one of the counterparties could demonstrate that he was using the contract to hedge a pre-existing risk. See Stout, *Origin of the Credit Crisis*, *supra* note 11, at 11–14; Stout, *Why the Law Hates Speculators*, *supra* note 93, at 718–19; see also Patterson, *supra* note 9 (detailing judicial attitudes prior to 1931 towards the delivery-non-delivery dichotomy and suggesting that delivery (non-delivery) should merely be *prima facie* evidence of legality (illegal wagering)).

¹⁰⁰ *Irwin*, 110 U.S. at 508–09.

¹⁰¹ JOHNSON & HAZEN, *supra* note 23, at 261; Hazen, *Rational Investments, Speculation, or Gambling?*, *supra* note 11, 1029–31; Omarova, *supra* note 82, at 102–07.

new exchange-traded derivative contract was available to market participants for them to engage in almost unlimited PSDs.¹⁰²

Of special concern are speculator-hedger contracts in which the hedger is merely hedging a risk incurred entirely as a result of having previously entered into a PSD. Once someone enters into a PSD, he has incurred the risk that he will lose the bet (market risk), and the risk that his counterparty will not pay if that counterparty loses the bet (counterparty risk). Indeed, in a regime where PSDs are unenforceable, counterparty risk may become quite significant. It might seem reasonable, then, for one (or both) of the original counterparties to subsequently enter into a second contract wherein he hedges his original PSD-incurred risk. Let's refer to this second transaction as "hedging one's bets." A speculator-hedger contract in which the hedger is merely hedging the risks associated with his earlier PSD should also be unenforceable. It should be unenforceable because in reality that hedger attempting to hedge his bet actually has no risk at all—since his own obligations under the original PSD are not enforceable. Therefore, there is no capacity to hedge any risk stemming from the original PSD. That second contract, then, is in fact a PSD too—and, therefore, unenforceable.¹⁰³

As discussed above, it may be difficult at times to determine whether or not a derivative contract is a PSD or not.¹⁰⁴ It may be that one or both counterparties have a colorable argument that one or the other is engaged in hedging.¹⁰⁵ In light of this difficulty and in the interest of judicial efficiency, a presumption of enforcement should exist. Courts should presume a derivatives contract is enforceable unless it can be shown by the party pleading for non-enforcement that the contract effectuates little or no hedging.¹⁰⁶ The pleading party should have the burden of proving that he was not hedging and the burden of making a *prima facie* case that his counterparty was not hedging. In fact,

¹⁰² Speculative position limits may or may not be imposed on market participants, and if so, may indeed limit the number of PSDs actually executed. For a further discussion of CFTC-imposed speculative position limits, see *infra* Part IV.D.4.

¹⁰³ See also Lynch, *PSDs*, *supra* note 7, at 127 (noting the need to do due diligence before contract execution to determine whether or not a proposed agreement will be an unenforceable PSD).

¹⁰⁴ See *supra* Part I.B.3.

¹⁰⁵ See *supra* note 27 and accompanying text (discussing the possibility of splitting contracts into a PSD component and non-PSD components).

¹⁰⁶ See also Badawi, *supra* note 96, at 484, 510–12, 525 (emphasizing that *ex ante* legal ambiguity can lead to social costs and "overdeterrence" when "the threat of losing any legal protection [leads] parties to refrain from or minimize contracting even when they have strong reasons to believe that a contract is legal" and stating that courts should enforce agreements "where there is legitimate ambiguity about the insurable interest requirement with full expectation damages.").

the Supreme Court in *Irwin v. Williar* expressed a similar sentiment, suggesting that the burden of proof alleging an illegal gambling contract, unenforceable and void for public policy purposes, rests on the defendant, “the presumption being that men ordinarily in their business transactions do not intend to violate the law.”¹⁰⁷

The mechanism for implanting such a non-enforceability rule against PSDs would need to differ between OTC derivatives on one hand and exchange-traded derivatives on the other. For OTC derivatives, courts could simply refuse to enforce them using the appropriate law at their disposal (perhaps the common law against difference contracts). A court that determines that any derivative is an unenforceable PSD may choose to order restitution of any premiums paid under the agreement. Options and swaps might be subject to such restitution.

For contracts executed on exchanges, however, applying a non-enforcement rule becomes more difficult. The counterparties to an exchange-executed contract usually never meet each other, let alone know whether or not one or the other is hedging. Furthermore, on most exchanges, almost immediately upon execution of the contract, a clearinghouse inserts itself as a counterparty between the two original counterparties in a process referred to as novation. Novation results in two contracts in which the clearinghouse is a counterparty to each, with a long position in one contract and a short position in the other. The original counterparties, then, are no longer, if they ever formally were, in contractual privity with each other.¹⁰⁸ Therefore, it would be difficult for a court to determine ex post whether or not an exchange-executed

¹⁰⁷ *Irwin v. Williar*, 110 U.S. 499, 510–11 (1884); see also *Mullinix v. Hubbard*, 6 F.2d 109, 113 (8th Cir. 1925) (“[I]t is settled . . . that . . . transactions on a reputable board of trade are presumed to be lawful and not wagers, and he who challenges them has the burden of proof.”).

¹⁰⁸ Clearinghouses may reduce their own exposure to counterparty risks through a process referred to as mutualization, wherein the clearinghouse may require the original counterparties to post and maintain margin or collateral, frequently net and settle customer accumulated obligations, and/or ensure that it is well-capitalized by its membership. For a more complete and detailed description of the mechanics and benefits of clearing and the mutualization of counterparty risk, see DUFFIE, LI & LUBKE, *supra* note 53, at 5–9, 21–27; JOHNSON & HAZEN, *supra* note 23, at 189–90; ED NOSAL & ROBERT STEIGERWALD, FED. RESERVE BANK OF CHI., CHICAGO FED LETTER: WHAT IS CLEARING AND WHY IS IT IMPORTANT? 1–4 (2010); DANIELA RUSSO, TERRY L. HART & ANDREAS SCHÖNENBERGER ET AL., EUR. CENT. BANK OCCASIONAL PAPER SERIES NO. 5, THE EVOLUTION OF CLEARING AND CENTRAL COUNTERPARTY SERVICES FOR EXCHANGE-TRADED DERIVATIVES IN THE UNITED STATES AND EUROPE: A COMPARISON (2002), available at <https://www.ecb.europa.eu/pub/pdf/scpops/ecbocp5.pdf>; Sharon Brown-Hruska, *The Derivatives Marketplace: Exchanges and the Over-the-Counter Market*, in FINANCIAL DERIVATIVES: PRICING AND RISK MANAGEMENT, *supra* note 3, at 21; James T. Moser & David Reiffen, *Clearing and Settlement*, in FINANCIAL DERIVATIVES: PRICING AND RISK MANAGEMENT, *supra* note 3, at 263; Carlton, *supra* note 28, at 238; Yesha Yadav, *The Problematic Case of Clearinghouses in Complex Markets*, 101 GEO. L.J. 387, 406–16 (2013).

contract was originally a PSD. Further still, the availability of the kinds of derivatives available on exchanges is limited. There are only so many contractual options, and contracts cannot be tailored (except for the price term). Because of this limited menu of options, it may be that a hedger must over-insure himself—i.e., enter into a contract or set of contracts where he is in part hedging and in part speculating.

This Article proposes that on exchanges each bidder and each solicitor designate himself primarily as a hedger or a speculator. Agreements concluded between two speculators would not be permitted (unless otherwise permitted by a need for supplemental price discovery, liquidity enhancement, or entertainment). Such a restriction would be enforced on the trading floor (or within the electronic matching system), before any agreement is novated by a clearinghouse. After passing this hurdle, any exchange position would be deemed to be both enforceable and tradable to any other party, including any other speculator.¹⁰⁹ Additionally, the risks of any exchange position could be laid off with an offsetting exchange transaction.

Professors Posner and Weyl have recently proposed a regulatory regime for financial products wherein a regulatory authority is charged with approving new financial products before they are offered to the public.¹¹⁰ Posner and Weyl present various criteria such a regulator authority could apply.¹¹¹ Their discussion regarding the regulation of financial products generally contains elements mimicking the proposal here with regard to regulating derivatives. Although not the central feature of their general proposal, they state that in cases where it is uncertain whether or not a new financial product will be socially beneficial or whether it might be used predominantly for gambling, the regulator “might . . . permit the inventor to sell the product only where the product serves an insurable interest of the buyer. If the inventor sells the product to buyers without insurable interests, then the contract will be unenforceable in court.”¹¹²

¹⁰⁹ The enforcement of such a mechanism could take many forms including ex ante demonstration of a valid hedging claim or, less administratively burdensome, requiring that self-identifying hedgers keep records justifying their hedger identification for potential ex post examination. Under the later scenario, if any subsequent examination revealed any intent to lie, trading privileges could be suspended. This Article is agnostic as to the enforcement mechanism.

¹¹⁰ See Posner & Weyl, *supra* note 45.

¹¹¹ *Id.*; see also Omarova, *supra* note 82 (proposing a similar regulatory regime requiring the pre-marketing approval of complex financial products and proposing that such products must meet an “economic purpose” test and must not pose an unacceptable level of systemic risk nor lead to excessive speculation nor raise significant public policy concerns).

¹¹² Posner & Weyl, *supra* note 45, at 1348. Posner and Weyl note that subjecting the sale of such financial products to the insurable interest condition is “particularly attractive . . . when determination of whether an insurable interest exists ex post is particularly feasible . . .” *Id.* Posner & Weyl’s proposal that derivative products be marketable subject to a possible insurable

The proposal I present flips their default position. Whereas Posner and Weyl propose a regulatory system for derivatives products wherein permission must be given prior to their offering, and that permission may be conditioned on the insurable interest requirement, I propose that derivatives products to be offered without prior regulatory approval but PSDs, i.e., derivative contracts in which a party has an insurable interest, would be unenforceable, unless prior regulatory approval was given for PSDs (e.g., to facilitate price discovery).

Posner and Weyl actually find themselves approaching the kind of regulatory regime proposed here:

One elegant solution to this problem [of gambling with derivatives] would be to deprive the [regulatory] agency of the power to *block* financial products and instead give it the power only to *license* financial products. A financial innovator would be free to market a product without prior authorization, but state anti-wager and insurable interest laws would apply, and so subsequently a party could avoid enforcement of any contract where the financial product was used to gamble rather than to insure. To avoid the legal uncertainty, a financial innovator could apply to the [regulatory agency] for a license or no-action letter that stated that the financial product satisfied our social welfare test and thus was lawful. A licensed financial product would be immune to challenge in court. Under this approach, people would (in theory) refuse to use financial products for gambling purposes because they could not enforce their payouts, while financial products mainly used for insurance purposes would be unaffected.¹¹³

Using their terminology, such “licensing” could be used to permit PSDs which supplement price discovery, promote liquidity for hedgers or provide entertainment utility.

D. *Internationalization*

Derivatives markets are global, and financial market participants “can shop for law, just as they do for other goods.”¹¹⁴ As a result, in order for any regulatory scheme to be optimally effective, it must be

interest requirement would seem to be unworkable in the context of exchange-trade derivatives contracts for the reasons articulated above—counterparty anonymity and the immediate novation by the clearinghouse. Their general proposal, however, that any exchange-traded derivatives product be subject to pre-marketing regulatory approval may be applied in conjunction with a rule prohibiting self-identifying speculators from contracting with self-identifying speculators on exchanges.

¹¹³ *Id.* at 1353 (emphases added).

¹¹⁴ See generally ERIN A. O'HARA & LARRY E. RIBSTEIN, *THE LAW MARKET* 3 (2009).

internationalized. And, indeed, the regulatory framework described above can be implemented in any jurisdiction. Without a harmonized set of laws in each country, there is a risk of “leakage,” the risk that parties intending to gamble will find foreign jurisdictions where they are permitted to do it and where their gambling contracts will be enforced.¹¹⁵ Even though the gambling takes place abroad, the domestic jurisdiction still suffers. The opportunity costs and transaction costs associated with foreign gambling would be incurred in the domestic jurisdiction, and any market losses resulting from foreign transactions could easily reverberate into one’s domestic country, negatively affect domestic stakeholders, and increase domestic systemic risk.

There is a sizable body of literature on the benefits and mechanisms (and lack thereof) of the international harmonization of financial regulation. Scholars have proposed several alternatives including expanding treaty obligations, the use of public-private partnerships,¹¹⁶ using a more dynamic soft law approach under the guidance of transnational regulatory networks,¹¹⁷ and the use of mutual recognition.¹¹⁸

It is beyond the scope of this Article to comment on the positive and negative attributes of those proposed harmonization strategies. It is also beyond the scope of this Article to propose an alternative international harmonization strategy beyond pointing out that the regulatory structure presented here is adoptable in any jurisdiction. However, this Article notes that the need for international harmonization regarding derivatives regulation has been recognized by world leaders. In 2009 the leaders of the Group of Twenty (G-20) countries stated that they were “committed . . . to improve the over-the-counter derivatives market and to create more powerful tools to hold

¹¹⁵ Edward F. Greene & Joshua L. Boehm, *The Limits of “Name-and-Shame” in International Financial Regulation*, 97 CORNELL L. REV. 1083, 1125 (2012) (noting that stricter regulations “only make[] sense if [they are] done in concert with peer jurisdictions, given the ease of circumvention in such a fluid area of financial markets”).

¹¹⁶ *E.g.*, Baker, *supra* note 53.

¹¹⁷ Transnational regulatory networks include the International Organization of Securities Commissions (IOSCO), the International Association of Insurance Supervisors (IAIS), the Basel Committee on Banking Supervision, and the OTC Derivatives Regulators’ Forum. Not all commentaries are optimistic about the international harmonization project. *E.g.*, Greene & Boehm, *supra* note 115, at 1137 (“Compounding the novelty of OTC derivatives regulation is the fact that it is so incredibly complex and diverse, . . . achieving harmonization in this field of regulation would take years, if it were even possible.”).

¹¹⁸ Under a regime of mutual recognition, each country recognizes the regulatory authority of each other participating country and each market participant is subject to the rules of only one regulatory regime regardless of where it acts. *See id.* at 1086–87; Eric J. Pan, *A European Solution to the Regulation of Cross-Border Markets*, 2 BROOK. J. CORP. FIN. & COM. L. 133 (2007); Pierre-Hugues Verdier, *Mutual Recognition in International Finance*, 52 HARV. INT’L L.J. 55 (2011).

large global firms to account for the risks they take.”¹¹⁹ They did not, however, make any references to PSDs or how PSDs impose particular costs on society, increase overall risk, and contributed to the global subprime financial crisis. The G-20 leaders did declare, however, that their nations should enact a set of measures that is likely to address some of the problematic aspects of PSDs. Specifically, they declared that “[a]ll standardized OTC derivative contracts should be traded on exchanges . . . and cleared through central counterparties OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements.”¹²⁰

The next Part discusses how the Dodd-Frank Act attempted to accomplish these goals and how, in this attempt, it provided an imperfect response to the problematic nature of purely speculative derivatives.

IV. REGULATION OF PURELY SPECULATIVE DERIVATIVES IN THE UNITED STATES

A. Overview

Derivatives regulation in the United States involves a multiplicity of state and federal laws, as well as the administrative and regulatory functions of many state and federal agencies. Derivatives are primarily regulated, among others, by the CEA,¹²¹ certain provisions in the Securities Exchange Act,¹²² the Dodd-Frank Wall Street Reform and Consumer Protection Act,¹²³ federal and state gambling laws, federal and state banking laws, state insurance laws, the regulatory functions of the CFTC, the Securities Exchange Commission (SEC), the U.S. Department of the Treasury, the Federal Reserve Board, and various state and federal banking and insurance regulators.¹²⁴

This hodge-podge of a regulatory structure in part reflects the evolution of derivatives over time, appearing first in the forms of

¹¹⁹ G-20, LEADERS’ STATEMENT: THE PITTSBURG SUMMIT 2 (2009), available at http://www.treasury.gov/resource-center/international/g7-g20/Documents/pittsburgh_summit_leaders_statement_250909.pdf.

¹²⁰ *Id.* at 9.

¹²¹ 7 U.S.C. §§ 1–27f (2012).

¹²² 15 U.S.C. §§ 78a–78pp (2012).

¹²³ Dodd-Frank Act, *supra* note 34.

¹²⁴ And the federal derivative legislative process is overseen by various congressional committees, primarily the Senate Committee on Agriculture, Nutrition and Forestry and the House Agricultural Committee.

wagering games between individuals, insurance pools established by people bearing similar risks, and as simple futures and options on agricultural commodities used for hedging purposes by producers and consumers of these commodities. It has evolved along three different paths, paths that we might commonly refer to as (i) “insurance,” (ii) “gaming” (or “gambling,” e.g., casino gambling, horse race betting, sports betting, lotteries), and (iii) “financial derivatives.” Each path evolved idiosyncratically, developing and offering different forms of derivatives contracting opportunities and regulating them in their own way.

Many of the statutes just listed—in particular those dealing with derivatives that we do not commonly think of as insurance or casino gambling, e.g., the CEA and the Securities Exchange Act—have also evolved over time, suffering amendments, deletions and additions, with each round of amendments chasing a derivatives industry that has been constantly evolving and developing seemingly new forms of derivatives with new names and new attributes, often evading the regulatory control of then-current incarnations of the law. The CEA, for example, took first form as the Grain Futures Act of 1922 and only regulated futures in the following seven grains: wheat, corn, oats, barley, rye, flax, and sorghum.¹²⁵ There was no mention of other agricultural products or derivatives referencing securities energy, the weather, currency exchange rates, or terrorism events, let alone traditional insurance products and casino and other gambling activities. There was no mention of “option” contracts. There was no mention of “swaps.” There was certainly no mention of “synthetic collateralized debt obligations.”

In other words, derivatives regulation in the United States is not coherent. It does not form a unique whole and often appears illogical and inconsistent. It is a patchwork of regulations pieced together over the years to serve the concerns of the time. “As a result, we are left with a derivatives regulatory regime that often appears confusing, incomplete, contradictory, greatly subject to interpretation, incapable of addressing derivatives innovation, and even at times, simply irrational or incomprehensible.”¹²⁶ The U.S. regulatory regime certainly does not resemble the kind of holistic framework presented in the previous Section. As a result, understanding and presenting the whole of American derivatives regulation in any detail whatsoever is a daunting task—and beyond the scope of this Article.

¹²⁵ The Grain Futures Act, 7 U.S.C. §§ 1–17 (1922) (substituted by Commodity Exchange Act of 1936, ch. 545, 49 Stat. 1491 (current version at 7 U.S.C. §§ 1–27f (2012))).

¹²⁶ Lynch, *Twenty-First Century Derivatives*, *supra* note 10, at 13.

Regarding the regulation of PSDs, however, there are some clear aspects of American derivatives law. For example, the insurance industry does not permit PSDs within their derivatives jurisdictional ambit. In order for there to be an enforceable contract with an insurance company for payment upon the occurrence of some future extrinsic event, the insurance company's counterparty must be hedging a pre-existing risk. Or, in the terminology of the insurance industry, in order to take out an insurance policy, you must have an "insurable interest."¹²⁷ Derivatives regulation within the insurance industry reflects the regulatory scheme proposed here.

It is also clear that pursuant to gaming industry regulations, not only are PSDs permitted and enforceable, but the gaming industry and gaming regulations exist for the purpose of enabling their particular brand of PSDs.¹²⁸ And the gambling industry is heavily regulated, so regulated that gambling law scholars Champion and Rose have written that "[n]o industry in America is as heavily regulated as legalized gambling, including atomic power plants."¹²⁹ To the extent the gaming industry provides entertainment PSDs explicitly permitted by regulation, derivatives regulation within the gaming industry, too, reflects the regulatory scheme proposed here.

The remainder of this Article, therefore, will focus on the world of financial derivatives regulations—in particular as they pertain to PSDs—contained in the CEA, the Dodd-Frank Act, and to some extent the Securities Exchange Act. The CEA is the federal statute which regulates most of what we commonly understand to be derivatives.¹³⁰ However, the CEA does not regulate what we commonly understand as insurance.¹³¹ Nor does it purport to regulate what we commonly understand to be gambling (or gaming). And although it has many provisions that address derivatives in which the underlyings are securities, the federal regulation of securities derivatives is for the most part, but not exclusively, addressed by the Securities Exchange Act.¹³²

¹²⁷ See KENNETH S. ABRAHAM, *INSURANCE LAW AND REGULATION* 78–86 (5th ed. 2010); Vukowich, *supra* note 29, at 1–11.

¹²⁸ See generally WALTER T. CHAMPION, JR. & I. NELSON ROSE, *GAMING LAW IN A NUTSHELL* (2012).

¹²⁹ *Id.* at 42.

¹³⁰ The most popular American legal treatise on "derivatives regulation" is largely a treatise of the CEA and CFTC regulations. See JOHNSON & HAZEN, *supra* note 23.

¹³¹ In fact the CEA states, "A swap (1) shall not be considered to be insurance; and (2) may not be regulated as an insurance contract under the law of any State." 7 U.S.C. § 16(h) (2012).

¹³² As an industry for derivatives that referenced securities developed, there was little statutory direction for the allocation of regulatory authority. Both the CFTC and the SEC, two bodies originally established to regulate what was previously understood to be two different financial worlds, that of agricultural commodities futures on the one hand and that of securities regulation on the other, took action to exercise control. In 1982, pursuant to the Shad-Johnson Accord, those

The Dodd-Frank Act amended the CEA significantly. Since the Dodd-Frank Act is the most recent Congressional attempt to wrangle derivatives within our regulatory apparatus and contains several provisions unrelated to the CEA, the Dodd-Frank Act is also included in this discussion.

B. *The Commodity Exchange Act and the Dodd-Frank Act*

In 1922, Congress passed the Grain Futures Act. In 1936, Congress amended this Act and renamed it the Commodity Exchange Act. Since 1936, Congress has amended the CEA at least thirteen times, radically so many times, most recently with the Dodd-Frank Act.¹³³ One set of amendments was contained in the Commodity Futures Trading Commission Act of 1974,¹³⁴ and pursuant to that Act, Congress established the Commodity Futures Trading Commission, the independent federal agency responsible for administering the CEA and promulgating regulations thereunder. The CFTC has exclusive jurisdiction, with certain exceptions, to regulate all options, swaps, and contracts of sale of commodities for future delivery—loosely speaking, all derivatives—“traded or executed on . . . any . . . board of trade, exchange, or market.”¹³⁵ The exceptions are, loosely speaking, certain derivatives whose underlyings are securities regulated by the SEC, energy products, and foreign currency, and of course those derivatives included in the ambit of the traditional insurance industry and the gaming industry.¹³⁶

It is necessary to say a few words about the terminology used in the CEA and Dodd-Frank, and how this terminology relates to the terminology used in this Article. First, except as a component term of

two commissions agreed on how to allocate regulatory authority. That allocation has since been largely codified in the CEA and the Securities Exchange Act, so to this day, very generally speaking, the SEC has primary authority to regulate derivatives referencing securities while the CFTC has the authority to regulate derivatives referencing everything else including broad securities indices. Similar regulatory authority uncertainty often exists with regard to securities, banking products, and contracts that have an embedded derivatives component.

¹³³ The CEA has been amended most significantly in 1936, 1968, 1974, 1978, 1983, 1992, 2000 (pursuant to the Commodity Futures Modernization Act), and 2010 (pursuant to the Dodd-Frank Act). See *History of the CFTC: US Futures Trading and Regulation Before the Creation of the CFTC*, U.S. COMMODITY FUTURES TRADING COMMISSION, http://www.cftc.gov/About/HistoryoftheCFTC/history_precftc (last visited Oct. 24, 2014).

¹³⁴ Commodity Futures Trading Commission Act, Pub. L. No. 93-463, 88 Stat. 1389 (1974).

¹³⁵ 7 U.S.C. § 2(a)(1)(A).

¹³⁶ The CFTC either has no jurisdiction over those derivatives or shares jurisdiction to regulate them with appropriate federal regulatory bodies (e.g., SEC, Board of Governors of the Federal Reserve System, Treasury Department, Federal Energy Regulatory Commission).

two particular entities—“derivatives clearing organization[s]”¹³⁷ and “derivatives transaction execution facility”¹³⁸—the CEA uses the term “derivative” only twice, yet does not define it.¹³⁹ Instead, the CEA uses various terms to try to capture an ever-increasing family of derivatives, and over the years—since its birth as the Grain Futures Act of 1922 (before the use of the term “derivative” in this financial sense had even been coined)¹⁴⁰ to its current post-Dodd-Frank version—has accumulated a variety of terms through statutory amendments. For example, the CEA refers to the following types of derivatives: (i) “transactions for future delivery,”¹⁴¹ (ii) “contract[s] of sale of a commodity for future delivery,”¹⁴² (iii) “contract for future delivery,”¹⁴³ (iv) “option[s],”¹⁴⁴ (v) “an agreement, contract, or transaction that is of the character of, or is commonly known to the trade as, an ‘option’, ‘privilege’, ‘indemnity’, ‘bid’, ‘offer’, ‘put’, ‘call’, ‘advance guaranty’, or ‘decline guaranty,’”¹⁴⁵ (vi) “swap[s],”¹⁴⁶ and (vii) “any contract of sale of any commodity for future delivery (or option on such contract or any commodity) or any swap.”¹⁴⁷

¹³⁷ “Derivatives clearing organization” is a defined term under the CEA, but is not defined with reference to anything called “derivatives.” 7 U.S.C. § 1a(15).

¹³⁸ “Derivatives transaction execution facility” is not a defined term within the CEA, but is nevertheless used more than eighty times throughout the CEA (as amended). However, “derivatives transaction execution facilities,” creatures of the Commodity Futures Modernization Act of 2000, are no longer legally operative or existent entities since the Dodd-Frank Act deleted the section of the CEA which prescribed the procedures by which a board of trade could register as a “derivatives transaction execution facility” and the rules under which derivatives transaction execution facilities were to operate. See Commodity Futures Modernization Act, Pub. L. No. 106-554, § 111 (2000); Dodd-Frank Act, *supra* note 34, § 734(a).

¹³⁹ 7 U.S.C. §§ 1a(33)(D), 2(h)(7)(C)(iii).

¹⁴⁰ It appears that prior to the 1980s there was no widely-used term to describe what we categorize today as derivatives. See John C. Cox & Stephen A. Ross, *A Survey of Some New Results in Financial Option Pricing Theory*, 31 J. FIN. 383, 383 (1976) (referring to “derivative financial assets” and “derivative assets”); Saul Hansell, *Derivatives as the Fall Guy: Excuses, Excuses*, N.Y. TIMES, Oct. 2, 1994, at 31 (stating in 1994 that the term “derivative” was “coined by the financial engineers of Wall Street and London a few years ago”). This author and his research assistants have not been able to find a use of “derivative” (in its financial sense) in the New York Times archive prior to 1987. See Burton G. Malkiel, *Business Forum: Big Moves, New Instruments; But Markets Only Seem More Volatile*, N.Y. TIMES, Sept. 27, 1987, at 33 (using the term “derivative” in a discussion about the securities market).

¹⁴¹ 7 U.S.C. § 6(c)(1). The phrase “transactions for future delivery” was first introduced to what has now evolved into the CEA by the Grain Futures Act of 1922. Grain Futures Act, *supra* note 125, § 5(b). The Grain Futures Act also employed the phrase “contract of sale of grain for future delivery.” *Id.* § 4.

¹⁴² *E.g.*, 7 U.S.C. §§ 1a(12)(A)(i)(I), 2(c)(2)(C)(iv), 2(c)(2)(D)(iii), 6(b)(2)(A).

¹⁴³ *E.g.*, *id.* § 12b.

¹⁴⁴ *E.g.*, *id.* § 1a(36).

¹⁴⁵ *E.g.*, *id.* § 1a(36); *accord id.* §§ 2(a)(1)(A), 2(a)(1)(C)(ii), 2(a)(1)(D)(i), 6c(b), 13(c)–(d).

¹⁴⁶ *E.g.*, *id.* § 1a(47).

¹⁴⁷ *E.g.*, *id.* § 25(a)(1)(B). The CEA also defines and makes reference to certain classes of derivatives based on the nature of their underlyings, e.g., “foreign exchange forwards,” “foreign

Of these terms, only “option” and “swap” are defined, but curiously an “option” is defined tautologically as an “option,”¹⁴⁸ and the (1500-word) definition of “swap” includes “option[s]”¹⁴⁹ and also, tautologically, various “swaps”¹⁵⁰ and any “agreement, contract, or transaction that is, or in the future becomes, commonly known to the trade as a swap.”¹⁵¹ A “swap” is also defined to include a broad range of other derivatives, including event derivatives¹⁵² and forward contracts.¹⁵³ The definition of “swap” expressly excludes “any contract of sale of a commodity for future delivery,”¹⁵⁴ and pursuant to CFTC regulations, the definition of a “swap” explicitly excludes what are commonly known as “insurance” contracts.¹⁵⁵ (CFTC regulations defining “swap” make no reference to what we know as “gaming,” however.)

Although the term “contract of sale of a commodity for future delivery” is not defined,¹⁵⁶ “commodity” is defined to include “all . . . goods and articles . . . and all services, rights, and interests . . . in

exchange swaps,” “security futures,” “security futures products,” and “security-based swap[s].” *Id.* § 1a. With regard to these derivatives, the underlyings are foreign exchange rates, debt securities, equity securities, narrow-based security indices, or other security-related things. *Id.*

¹⁴⁸ *Id.* § 1a(36) (“The term ‘option’ means an agreement, contract, or transaction that is of the character of, or is commonly known to the trade as, an ‘option’, ‘privilege’, ‘indemnity’, ‘bid’, ‘offer’, ‘put’, ‘call’, ‘advance guarantee’, or ‘decline guarantee.’”). For a discussion of whether or not an “option,” although it is certainly a contract for the sale of a commodity for future delivery, is also considered legally under the CEA to be a “contract of sale of a commodity for future delivery,” see John H. Stassen, *The Commodity Exchange Act in Perspective: A Short and Not-So-Reverent History of Futures Trading Legislation in the United States*, 39 WASH. & LEE L. REV. 825, 836–43 (1982).

¹⁴⁹ 7 U.S.C. § 1a(47)(A)(i).

¹⁵⁰ *Id.* § 1a(47)(A)(iii).

¹⁵¹ *Id.* § 1a(47)(A)(iv). The joint CFTC regulation, which further defines the term “swap,” is an additional 1450 words. 17 C.F.R. § 1.3(xxx) (2014).

¹⁵² 7 U.S.C. § 1a(47)(A)(ii).

¹⁵³ *Id.* § 1a(47)(A)(iii).

¹⁵⁴ *Id.* § 1a(47)(B)(i). The express exclusion of “any contract of sale of a commodity for future delivery” from the definition of “swap” is particularly curious since swaps are understood amongst finance scholars to functionally be merely a series of forward contracts. (Futures are merely exchange-traded forwards.) See MARK JICKLING, CONG. RESEARCH SERV., IB97040, FUTURES AND DERIVATIVES: COMMODITY EXCHANGE ACT AMENDMENTS 8 (1998); CHANCE & BROOKS, *supra* note 22, at 405; G.D. KOPPENHAVER, *Derivative Instruments: Forwards, Futures Options, Swaps, and Structured Products*, in FINANCIAL DERIVATIVES: PRICING AND RISK MANAGEMENT, *supra* note 3, at 11; see also Carlton, *supra* note 28, at 239 (comparing futures and forwards).

¹⁵⁵ 17 C.F.R. § 1.3(xxx).

¹⁵⁶ “Future delivery” is also defined but is defined by merely describing what it is not. 7 U.S.C. § 1a(27) (“The term ‘future delivery’ does not include any sale of any cash commodity for deferred shipment or delivery.”). “Security futures,” “security futures products” and “security-based swaps” refer to futures, options, and swaps where the underlying commodity is a debt, equity security, or a narrow-based security index, and are derivatives for which the SEC (not the CFTC) is the primary regulator. *Id.* §§ 1a(42), (44)–(45).

which contracts for future delivery are presently or in the future dealt in.”¹⁵⁷ “Swap” is also defined in part with reference to “commodities.”¹⁵⁸ The expansiveness of the definition of “commodity”¹⁵⁹ in conjunction with the definitions of “swap” and “contract of sale of a commodity for future delivery” may lead us to conclude, therefore, that the collection of both “swaps” and “contract[s] of sale of . . . commodit[ies] for future delivery” may be the set of things defined by the CEA that most closely means the same thing as this Article defines “derivative”—although the two sets are not at all coterminous.¹⁶⁰

With regard to the Dodd-Frank Act, it has significantly increased federal regulatory authority of OTC derivatives and has introduced extensive regulations attempting to reduce systemic risk posed by derivatives, and Dodd-Frank uses the word “derivative” (or some form of it) approximately forty times. However, Dodd-Frank never once defines the word.¹⁶¹

¹⁵⁷ *Id.* § 1a(9). Curiously, onions and movie box office receipts are expressly excluded from the definition of “commodity.” *Id.*

¹⁵⁸ *Id.* § 1a(47).

¹⁵⁹ For a discussion on the CEA’s definition of “commodity” and the potential expansiveness of its meaning (including the ambiguities therein), see JOHNSON & HAZEN, *supra* note 23, at 7–12.

¹⁶⁰ *But see* Stout, *Origin of the Credit Crisis*, *supra* note 11, at 33 (concluding somewhat certainly that the CEA definition of “swap” is only another label for a derivative).

¹⁶¹ Dodd-Frank simply uses the simple one-word term “derivative” (or “derivatives”) at least fourteen times. Dodd-Frank Act, *supra* note 34, §§ 171(b)(7)(B), 619, 716(m), 719(b), 721, 723, 975(e), 977(b), 989(a), 989(e), 1502(e). Section 719(b) of the Dodd-Frank Act uses the terms “financial derivatives,” “complex derivatives,” “complex financial derivatives,” “derivatives contracts,” “derivatives markets,” and “derivatives industry” once each, and “derivative contracts” three times. Additionally, “financial derivatives contracts” is used once (in Section 803(7)), “derivative products” is used three times (in Section 718), “derivatives markets” is used a second time (in Section 210(c)), and “derivative markets” is used twice (Section 750). Sections 608–14 use the term “derivative transactions” ten times. Section 610(a) does attempt to define the term “derivative transactions” for use in Section 5200(b) of the Revised Statutes of the United States (12 U.S.C. 84(b)), but its definition is merely a non-exhaustive list of particular transactions.

The Dodd-Frank Act has, however, directed the CFTC and the SEC to “conduct a joint study of the feasibility of requiring the derivatives industry to adopt standardized computer-readable algorithmic descriptions which may be used to describe complex and standardized financial derivatives.” Dodd-Frank Act, *supra* note 34, § 719(b)(1). Dodd-Frank continues, “The study will also examine the extent to which the algorithmic description, together with standardized and extensible legal definitions, may serve as the binding legal definition of derivative contracts.” *Id.* § 719(b)(2). Such a study took place in 2011 and achieved both expected and disappointing results, in large part because the study participants adhered to a form of the traditional (and unsatisfying) description—that a derivative is “a contract whose value is derived from the value of an underlying asset (such as a commodity, equity, bond, or loan), an index, or a reference rate (such as an interest or exchange rate)” —and otherwise failed to develop a more precise, extensible or pertinent legal definition. STAFF OF THE U.S. SEC & STAFF OF THE COMMODITY FUTURES EXCH. COMM’N, JOINT STUDY ON THE FEASIBILITY OF MANDATING ALGORITHMIC DESCRIPTIONS OF DERIVATIVES 6 (2011), available at <http://www.sec.gov/news/studies/2011/719b-study.pdf>. I propose my definition as an extensible legal definition if not a binding legal definition or the basis of one.

As a result of the fact that the CEA uses various terms to refer to various idiosyncratic subsets of derivatives, this Article will often refer loosely to “derivatives” when discussing what the CEA regulates, but when necessary will use a more precise statutory term (e.g., “swap” or “future”).

Also, the CEA and the Securities Exchange Act distinguish between derivatives that refer to securities and derivatives that do not refer to securities. For example, there exists both “security-based swap[s],” and “swap[s].”¹⁶² The CEA does this because regulatory authority over derivatives referencing individual securities and narrow-based indices of securities (and market participants dealing in such derivatives) generally belongs to the SEC, not the CFTC. Since the rules governing each are largely similar, for ease of understanding, this Article will generally not make a distinction between security-based derivatives on one hand and those that are non-securities-based on the other. As a result, except where specifically noted, this Article will typically refer to both security-related and non-security-related derivatives using the non-security-based term (e.g., “swaps” should be understood to mean both “swap[s]” (as defined in the CEA) and “security-based swap[s]” (as defined in the CEA)).¹⁶³

Finally, most of the Dodd-Frank provisions discussed below are provisions that amended the CEA. As a result, although many commentaries on Dodd-Frank’s new derivatives regulations refer to the regulations as “Dodd-Frank” regulations, here they will largely be included as one of the many provisions of the CEA and referred to as “CEA” provisions. There are, however, several relevant derivatives-related provisions within the Dodd-Frank Act that are not amendments to the CEA, and I will refer to those provisions as “Dodd-Frank” provisions.

It is beyond the scope of this Article to describe in detail how the CEA and the Securities Exchange Act regulate derivatives generally. Very generally speaking, however, they regulate derivatives by requiring that derivatives are entered into on regulated exchanges except in some cases when institutional investors or other sophisticated or wealthy entities transact. Dodd-Frank contributed to this effort. Prior to Dodd-Frank, there were extensive opportunities for institutional investors and other sophisticated or wealthy entities to enter into OTC derivative contracts beyond the reach of the regulated exchanges and largely

¹⁶² 7 U.S.C. §§ 1a(42), 1a(47). The CEA also refers to “security future[s]” and “security futures product[s].” *Id.* §§ 1a(44)–(45).

¹⁶³ As defined in the CEA, “security-based swap[s]” are not a subset of “swap[s],” although some “security-based swap[s]” (i.e., “mixed swaps”) are “swap[s].” *Id.* § 1a(42).

beyond the regulatory reach of the CFTC.¹⁶⁴ Dodd-Frank's central idea was to comprehensively regulate these unregulated derivatives through legal and financial mechanisms designed to encourage the movement of as many OTC transactions¹⁶⁵ as possible to exchanges and to clearinghouses.¹⁶⁶ As will be discussed in more detail below, pushing more and more derivatives onto exchanges (in the form of standardized contracts) and clearinghouses is understood to reduce counterparty risk and facilitates the reporting and analysis of trading information. This process is expected to reduce systemic risk.

C. *Legality and Enforceability of Purely Speculative Derivatives*

This Subsection discusses the legality and enforceability of purely speculative derivatives under the CEA. In most states, the common law treats gambling agreements as void and unenforceable.¹⁶⁷ Some states have statutes prescribing the same thing. As a federal statute, however, the CEA may preempt state law.¹⁶⁸ But there is some uncertainty as to the extent of the preemption. This uncertainty arises for several reasons, most significantly as a result of the underlying similarity of (i) gambling, (ii) insurance, and (iii) those transactions regulated by the CEA

¹⁶⁴ For example, largely unregulated derivatives trading was permitted on so-called "derivatives transaction execution facilit[ies]," exempt "board[s] of trade," and excluded "electronic trading facilit[ies]." *Id.* §§ 2(e), 7a, 7a-3 (repealed 2010). There was a family of derivatives that were explicitly exempt from the vast majority of CEA provisions. *E.g., id.* § 2(d) (providing for excluded derivative transactions). There was also a family of underlyings referred to as "exempt commodit[ies]." *Id.* § 1a(20). Institutional investors and other sophisticated and wealthy entities could enter into derivatives referencing exempt commodities and remain largely outside the reach of the CEA and the CFTC. *Id.* § 2(h).

¹⁶⁵ Interestingly, the Dodd-Frank Act makes very few references to "over-the-counter" derivatives, and the CEA makes no such references. However, Subtitle A of Title VII of the Dodd-Frank Act is entitled "Regulation of Over-the-Counter Swaps Markets."

¹⁶⁶ Press Release, U.S. Dep't of the Treasury, Administration's Regulatory Reform Agenda Reaches New Milestone: Final Piece of Legislative Language Delivered to Capitol Hill (Aug. 11, 2009), available at <http://www.treasury.gov/press-center/press-releases/Pages/tg261.aspx>. Dodd-Frank introduced the term "swap" into the CEA, and for the most part, Dodd-Frank derivatives provisions regulate "swaps." Additionally, the Dodd-Frank provisions that regulate swaps generally do not apply to foreign swap agreements unless they "have a direct and significant connection with activities in, or effect on, commerce of the United States" or are made to evade American regulation. 7 U.S.C. § 2(i).

¹⁶⁷ CHAMPION & ROSE, *supra* note 128, at 10–17. Some states have passed legislation declaring that certain types of derivative are not gambling. *E.g.,* MINN. STAT. § 609.75, subdiv. 3(2) (2014) ("The following are not bets . . . a contract for the purchase or sale at a future date of securities or other commodities . . .").

¹⁶⁸ Preemption is generally understood to take one of two forms, "express" preemption and "conflict" preemption. Conflict preemption itself is generally understood to take one of two forms, "field" preemption and "obstacle" preemption. *See* Caleb Nelson, *Preemption*, 86 VA. L. REV. 225, 225–29 (2000).

“contracts for future delivery,” “options,” “swaps” etc.). In order to identify which PSDs are enforceable and which are not, the exact contours of the CEA’s derivatives ambit must be determined. Even with regard to derivatives that clearly come within the ambit of the CEA, there is still some uncertainty because of the nature and extent of the CEA’s preemption effect is somewhat unclear. A few observations are in order.

First, the CEA never states that PSDs are void or unenforceable. Indeed, the CEA never identifies a subset of derivatives known as PSDs.

Second, all derivatives, including all PSDs, entered into on any CFTC-regulated exchange or any exchange expressly exempted from CEA and CFTC regulation, appear to be enforceable. The basic regulatory structure created by the CEA is one where derivatives transactions are either required or encouraged to be executed on regulated exchanges. The preemption of state law and the enforceability of exchange-executed PSDs would seem to follow. By providing a mechanism by which derivatives—including PSDs—can be formed and traded, the CEA would seem to permit PSDs in spite of the existence of state gambling laws which may deem them otherwise unenforceable.

Additionally, Section 16(e)(1) of the CEA states, “Nothing in [the CEA] shall supersede or preempt . . . the application of any Federal or State statute . . . to any transaction in or involving any commodity, product, right, service, or interest . . . that is *not* conducted on or subject to the rules of a registered entity or exempt board of trade.”¹⁶⁹ Although this provision does not explicitly say that the CEA *does* preempt the application of state and other federal law to any such transaction that is conducted on or subject to the rules of a registered entity or exempt board of trade, a reasonable implication of this provision, along with the object, purpose, and scope of the CEA, is that such preemption exists.¹⁷⁰

¹⁶⁹ 7 U.S.C. § 16(e)(1)(B)(i) (emphasis added). A “registered entity” is defined to include registered exchanges (i.e., “designated . . . contract market[s]”), “swap execution facilit[ies],” registered clearinghouses (i.e., “derivatives clearing organization[s]”), and “swap data reposit[or]ies.” *Id.* § 1a(40). This Article, for convenience and readability, will refer to any contract that is conducted on or subject to the rules of any registered entity or exempt board of trade as an “exchange-executed” contract.

¹⁷⁰ *But see* Dickson v. Uhlmann Grain Co., 288 U.S. 188, 198–99 (1933) (challenging this logic (although pre-dating the enactment of Section 16(e)(1)) (“The Grain Futures Act did not supersede any applicable provisions of the Missouri law making gambling in grain futures illegal. . . . The federal act declares that contracts for the future delivery of grain shall be unlawful unless the prescribed conditions are complied with. It does not provide that if these conditions have been complied with the contracts, or the transactions out of which they arose, shall be valid. It does not purport to validate any dealings. Nor is there any basis for the contention that Congress occupied the field in respect to contracts for future delivery; and that necessarily all state legislation in any way dealing with that subject is superseded. . . . [Congress] evinced no intention to authorize all future trading if its regulations were complied with. . . . The Missouri [anti-gambling] law is in no way inconsistent with the provision of the federal act.”). *But see* Donald A.

Therefore, any state or federal law that would otherwise declare exchange-executed PSDs to be unenforceable (including the common law against difference contracts) would seem to be preempted.¹⁷¹

However, Section 16(e)(2) of the CEA provides a list of agreements for which the CEA *does* “supersede and preempt the application of any State or local law that prohibits or regulates gaming or the operation of bucket shops.”¹⁷² Transactions “conducted on or subject to the rules of a registered entity or exempt board of trade” are *not* on the list.¹⁷³ In other words, if such preemption exists, it is certainly not explicit. This creates some ambiguity as to whether or not exchange-executed PSDs are in fact subject to state anti-gambling laws and whether or not they are enforceable.¹⁷⁴ There appears, however, to be no instance where a counterparty to an exchange-executed derivatives contract successfully challenged the enforceability of a contract.¹⁷⁵ In fact, it would often be difficult for any counterparty to do so since, as discussed above, the counterparties to most exchange-executed contracts are anonymous to each other, and their contracts are typically immediately novated by a clearinghouse, leaving the original counterparties no longer in privity of contract. It would be difficult if not impossible to make a claim that any particular exchange-traded contract was a PSD. This difficulty, certainly known to Congress, also argues in favor of CEA preemption with regard to, and the enforceability of, exchange-traded contracts.

Campbell, *Trading in Futures Under the Commodity Exchange Act*, 26 GEO. WASH. L. REV. 215, 252–53 (1958) (suggesting that *Dickson* should be limited to non-exchange-executed futures and concluding that the CEA does preempt state anti-gambling laws with regard to exchange traded futures); Telford Taylor, *Trading in Commodity Futures—A New Standard of Legality?*, 43 YALE L.J. 63, 102 (1933) (disagreeing with the *Dickson* court and arguing that with regard to exchange-executed contracts, the Grain Futures Act should preempt state anti-gambling laws). *But see* Nelson, *supra* note 168, at 260 (arguing for a preemption doctrine in which state law should be disregarding “if, but only if, it contradicts a rule validly established by federal law”).

¹⁷¹ Simultaneously, however, the CEA permits the CFTC to refuse to register a person if he has been found to have violated any law involving gambling or has been enjoined by a court from engaging in gambling activities. 7 U.S.C. §§ 12a(2)–(3). Additionally, the CEA states that the CFTC may declare any derivative contract that references a gambling transaction to be contrary to the public interest and to prohibit it from appearing on any board of trade. *Id.* § 7a-2(c)(5)(C)(i).

¹⁷² *Id.* § 16(e)(2).

¹⁷³ *Id.*

¹⁷⁴ “When a federal statute includes an express preemption clause, the Supreme Court is reluctant to use the doctrine of ‘obstacle preemption’ to infer a more sweeping preemption clause.” Nelson, *supra* note 168, at 276 n.166 (citing *Freightliner Corp. v. Myrick*, 514 U.S. 280, 288–89 (1995); *Cipollone v. Liggett Grp.*, 505 U.S. 504, 517 (1992)); *see also Dickson*, 288 U.S. 188.

¹⁷⁵ *See Dickson*, 288 U.S. at 198–200 (distinguishing between a retail customer’s derivative agreement with his broker, on the one hand, and the broker’s offsetting derivative agreement executed on a federally-regulated futures exchange, on the other, holding that the Grain Futures Act did not preempt Missouri anti-gambling law with regard to the *former* agreement, and holding the *former* agreement void).

Decades ago, several courts declared that earlier versions of the CEA preempted state anti-gambling and bucket shop laws with regard to federally regulated exchange-executed futures.¹⁷⁶ Apparently, only one court in recent decades¹⁷⁷ has visited the question of whether or not the CEA preempts state anti-gambling and bucket shop statutes with regard to exchange-traded futures.¹⁷⁸ In 1981, a federal district court in Alabama emphatically declared that the CEA does preempt such laws, noting that if an Alabama anti-gambling statute were not preempted, “it would destroy the commodities industry in Alabama and, if applied in other states, nationwide.”¹⁷⁹

Third, it is “unlawful” for any person to enter into a forward agreement¹⁸⁰ unless it is on an exchange, unless the CFTC has granted a public interest exception to the contract or counterparty.¹⁸¹ Such public interest exceptions are only available to institutional investors and other financially sophisticated and/or wealthy entities (“eligible contract participant[s]”).¹⁸² Thus, if an unsophisticated actor enters into an OTC

¹⁷⁶ *E.g.*, *Lyons Milling Co. v. Goffe & Carkener, Inc.*, 46 F.2d 241 (10th Cir. 1931); *see also* *Patterson*, *supra* note 9, at 863–69 (discussing the widespread presumption as of 1931 that all exchange-executed futures agreements are legal and enforceable); *Stout, Origin of the Credit Crisis*, *supra* note 11, at 16–17 (concluding that the Supreme Court in *Bd. of Trade of Chicago v. Christie Grain & Stock Co.*, 198 U.S. 236 (1905), effectively determined that all exchange-executed futures were legal and enforceable).

¹⁷⁷ *See* Kevin T. Van Wart, *Preemption and the Commodity Exchange Act*, 58 CHI.-KENT L. REV. 657, 672 (1982) (noting that since the 1940s “progressively fewer actions were brought under state bucket-shop [laws challenging the validity and enforceability of federally-regulated exchange-executed futures agreements]. The paucity of such litigation suggested a general contentment with the system of federal regulation under the CEA.”).

¹⁷⁸ *Paine, Webber, Jackson & Curtis, Inc. v. Conaway*, 515 F. Supp. 202, 206 (N.D. Ala. 1981) (holding that the CEA pre-empts an Alabama state anti-gambling statute in cases of federally regulated exchange-traded futures where actual delivery of the underlying commodity is not intended because “the federal government has moved to occupy the entire field of commodities futures traded on federally regulated exchanges and because the state statute . . . would conflict with the objectives of the federal statutes and interfere with the stated federal purpose of fostering the commodity markets”).

¹⁷⁹ *Id.* at 206. There is, however, some doubt as to the extent the CEA preempts state common law (as opposed to state statutes). Some commentators and courts have declared that the CEA does not preempt common law. *See* *Patry v. Rosenthal & Co.*, 534 F. Supp. 545, 551 (D. Kan. 1982) (“While the federal [commodities futures regulatory] scheme may be so pervasive as to preempt any action under state regulatory statutes, the Court cannot find any evidence that Congress intended to go so far as to preempt state common law claims.”). However, it is difficult to see how it would be logical for the CEA to preempt state anti-gambling statutes while failing to preempt state anti-gambling common law, like the common law against difference contracts.

¹⁸⁰ *CHANCE & BROOKS*, *supra* note 22, at 252 (“A forward contract is an agreement between two parties, a buyer and a seller, that calls for the delivery of an asset at a future point in time with a price agreed upon today. A futures contract is a forward contract that has standardized terms, is traded on an organized exchange, and follows a daily settlement procedure . . .”).

¹⁸¹ 7 U.S.C. § 6(a) (2012).

¹⁸² *Id.* § 6(c).

forward agreement,¹⁸³ whether or not it is a PSD, and whether or not it is opposite an unsophisticated actor, it would appear that the forward agreement would be unenforceable, since entering into the contract is “unlawful.”

Fourth, it is unlawful for any person, other than eligible contract participants, to enter into a swap unless the swap is entered into on, or subject to the rules of, a registered exchange.¹⁸⁴ Thus, if an unsophisticated actor enters into an OTC swap, whether it is a PSD or not, and whether it is opposite an unsophisticated actor or not, it would appear that the swap would be unenforceable.

Fifth, even though derivatives and insurance contracts (and gambling transactions) all have the same basic form,¹⁸⁵ the CEA states quite explicitly that “[a] swap (1) shall not be considered to be insurance; and (2) may not be regulated as an insurance contract under the law of any State.”¹⁸⁶ One of the consequences of limiting the characterization of swaps like this is that swap agreements will never be subject to the insurable interest rule which is applicable to insurance contracts and which effectively prohibits purely speculative forms of insurance contracts.

However, there are at least two complicating issues. First, it may be possible for a transaction to be structured and categorized as either an insurance policy or as a swap. Indeed, included in the definition of a “swap” is the following kind of agreement: “any . . . contract . . . that provides for any . . . payment . . . that is dependent on the occurrence, nonoccurrence, or the extent of the occurrence of an event or contingency associated with a potential financial, economic, or commercial consequence.”¹⁸⁷ This would seem to be the definition of a paradigmatic insurance contract. So something that quacks like an insurance contract also quacks like a swap. But insurance law cannot be applied to swaps, leaving us to conclude that counterparties who want to construct a PSD transaction that has these attributes might be able to structure it as a swap and avoid the pesky insurable interest rule. Structuring their agreement like a traditional insurance policy would subject the agreement to the insurable interest rule.

The CFTC has augmented the CEA definition of “swap” through its rulemaking authority and has tried to elaborate and clarify how it is

¹⁸³ Formally, the phrase “over-the-counter forward agreement” may be considered redundant. See *supra* note 180 and accompanying text (suggesting that forward agreements are, by definition, not exchange-traded).

¹⁸⁴ 7 U.S.C. § 2(e).

¹⁸⁵ See *supra* Part I.A.

¹⁸⁶ 7 U.S.C. § 16(h).

¹⁸⁷ *Id.* § 1a(47)(A)(ii).

that a “swap” does not include insurance contracts.¹⁸⁸ However, it does this by carving out a “non-exclusive safe harbor” for traditional insurance policies and spends over 600 words trying to describe the kinds of contracts which would be characterized as insurance contracts and thus not subject to the CEA. The carve-out includes, among others, (i) any agreement which “[b]y its terms or by law, as a condition of performance . . . [r]equires the beneficiary . . . to have an insurable interest,”¹⁸⁹ (ii) contracts that are “provided [b]y a person that is subject to supervision by the insurance commissioner . . . of any State,”¹⁹⁰ and (iii) (redundantly) contracts that are “provided [b]y a person that is subject to supervision by the insurance commissioner . . . of any State” and are ‘life insurance’ or ‘health insurance.’”¹⁹¹ In other words, the goal of the carve-out is not to ensure that insurance-like agreements are subject to an insurable interest rule, but rather to ensure that insurance contracts, as the United States has traditionally understood insurance contracts to be, are excluded from CEA coverage.

This carve-out highlights the difficulty in regulating derivatives by three separate regulatory regimes: gaming, insurance, and financial derivatives. There must be a constant effort to keep the worlds apart, even though they naturally form one family, and the success of keeping these regulatory regimes apart is suspect. As a result, despite the CFTC’s attempt to distinguish between insurance that is not subject to the CEA on one hand and event derivatives which are subject to the CEA on the other, parties eager to engage in a PSD event derivative might still be able to evade restrictive insurance laws by engaging in regulatory arbitrage and constructing their agreement to be a “swap” and thus subject to the CEA—and *not* the insurable interest rule.

The second complicating issue regarding swaps and the preemption of state insurance law is that the definition of “swap” does not include every kind of derivative. Conceivably, then, a derivative which is not captured by the definition of “swap” might be subject to state insurance rules. The term “swap”¹⁹² does not include the following, among others, (i) insurance policies (as just discussed), (ii) “any contract of sale of a commodity for future delivery (or option on such a

¹⁸⁸ 17 C.F.R. § 1.3(xxx) (2014).

¹⁸⁹ *Id.* § 1.3(xxx)(4)(i)(A)(1).

¹⁹⁰ *Id.* § 1.3(xxx)(4)(i)(B)(1).

¹⁹¹ *Id.* § 1.3(xxx)(4)(i)(C).

¹⁹² Recall that for the purposes of this Article, the use of the term “swap” usually is meant to include “security-based swap” unless a distinction is meant to be made. Formally, pursuant to the CEA, a “security-based swap,” unless it is a “mixed swap” is not a “swap.” However, the federal rules regulating swaps and security-based swaps are similar. *See supra* note 151 and accompanying text.

contract),¹⁹³ and (iii) foreign exchange swaps and foreign exchange forwards.¹⁹⁴ As a result of these carve-outs, in conjunction with the fact that there does not exist elsewhere in the CEA language explicitly preempting the application of state insurance law to these carved-out derivatives, it suddenly becomes somewhat ambiguous if any contract of sale of a commodity for future delivery, any option on such a contract, any foreign exchange swap, or any foreign exchange forward might be subject to state insurance rules, including the insurable interest rule. If so, PSDs in such contracts would not be enforceable.

Sixth, as noted above, the CEA explicitly states it “shall supersede and preempt the application of any State or local law that prohibits or regulates gaming or the operation of bucket shops . . . in the case of [certain agreements].”¹⁹⁵ Prior to the Dodd-Frank amendments, the list of these certain agreements was considerable and included OTC derivatives agreements between institutional investors and other financially sophisticated and/or wealthy entities provided the underlyings of the contracts were non-agricultural commodities.¹⁹⁶ Dodd-Frank eliminated these agreements from the list.¹⁹⁷ Currently the derivative agreements on the list include the following:¹⁹⁸ (i) non-swap, OTC derivatives in government securities; (ii) certain agreements in foreign currency, and (iii) forward agreements between sophisticated entities that the CFTC has excluded from CEA coverage in order to promote responsible economic or financial innovation and fair competition.¹⁹⁹ These types of agreements are also largely exempt from CEA coverage generally,²⁰⁰ so interestingly, Congress has created classes of derivatives that are not extensively regulated by federal law and are *also* expressly exempt from state anti-gambling law. Not included in this list are such derivatives as swaps and exchange-traded futures—the

¹⁹³ 7 U.S.C. § 1a(47)(B)(i) (2012).

¹⁹⁴ *Id.* § 1a(47)(E)(i) (authorizing the Secretary of the Treasury to exempt foreign exchange swaps and foreign exchange forwards from the definition of the term “swap”); DEP’T OF THE TREASURY, *supra* note 37 (announcing the Secretary of the Treasury Department’s decision to exempt them).

¹⁹⁵ 7 U.S.C. § 16(e)(2).

¹⁹⁶ 7 U.S.C. §§ 2(d)–(e), (g)–(h) (2000) (current version at 7 U.S.C. §§ 2(d)–(e), (g)–(h) (2012)).

¹⁹⁷ Dodd-Frank Act, *supra* note 34, § 749(f).

¹⁹⁸ There are several non-derivatives instruments listed, e.g., securities, banking instruments, mortgages, repurchase agreements, and installment loan contracts. 7 U.S.C. §§ 2(c)(1), 2(f), 16(e)(2)(B).

¹⁹⁹ *Id.* § 16(e)(2)(B). The CEA also supersedes and preempts state gaming and bucket shop laws in the case of “electronic trading facilit[ies] excluded under section 2(e) of [the CEA].” *Id.* § 16(e)(2)(A). However, Dodd-Frank amended section 2(e) eliminating any reference to electronic trading facilities at all, so this reference appears to have no significance or meaning. Dodd-Frank Act, *supra* note 34, § 723(a)(1)(A).

²⁰⁰ 7 U.S.C. §§ 2(c), 2(f), 27–27(f), 6(c).

most significant sets of derivatives regulated by the CEA. The express preemption seems to exist, then, in order to give certainty to the preemptive effect of the CEA concerning a set of contracts that are not significantly regulated by the CEA.²⁰¹

This deletion of the reference to OTC derivatives referencing non-agricultural commodities between eligible contract participants, however, does not necessarily mean that PSD versions of such agreements do not enjoy preemption from state and local gaming and anti-bucket shop law coverage. The deletion simply means that such preemption is not explicit. Perhaps the elimination of these provisions was merely a conforming amendment triggered by the fact that those sections of the CEA that had exempted non-agricultural OTC derivatives between eligible contract participants from most CEA regulation were deleted altogether. Nevertheless, the deletion is curious and would seem to suggest that such preemption no longer exists for such derivatives.

Seventh, a swap between eligible contract participants is valid and enforceable even if the swap agreement was required to be cleared but was not cleared.²⁰² And although the CEA does not state this explicitly, it would seem, therefore, that any swap between eligible contract participants is also valid and enforceable if such a swap was required to be cleared and was in fact cleared.

Given these seven sets of observations, at least one question arises: if an OTC PSD swap between eligible contract participants is *not* required to be cleared, or if the CFTC has not considered such swaps at all and thus has not made a determination about whether or not such swaps are required to be cleared, is that swap valid? Is it enforceable? Perhaps it is subject to state gambling and anti-bucket shop laws. In fact, the fact that Dodd-Frank eliminated previous CEA provisions that had explicitly preempted state gambling and anti-bucket shop laws with regard to non-agricultural OTC derivatives between eligible contract participants strengthens the argument that such swaps are vulnerable to state gambling and anti-bucket shop laws.²⁰³ As a result, courts, depending on the nature of the applicable state's gambling and bucket shop laws, may decide that OTC PSD swaps which are not (or not yet)

²⁰¹ At least one commentator seems to have concluded that this provision of the CEA has indeed broadly preempted state gambling and anti-bucket shop laws from application to derivatives generally. *E.g.*, Stout, *Dangerous Optimism*, *supra* note 20, at 1207–08, 1210 (“Federal law, and only federal law, now regulates derivatives wagering.”).

²⁰² 7 U.S.C. § 25(a)(4)(B).

²⁰³ *Id.* § 16(e); Commodity Futures Modernization Act, Pub. L. No. 106-554, § 117 (2000); *see also infra* Part IV.D.6.

subject to mandatory clearing between eligible contract participants are illegal, unenforceable agreements.

Such a conclusion seems curious because if this is the case, the difference between an enforceable OTC PSD swap between eligible contract participants and a non-enforceable one is whether or not the CFTC has required such a swap to be cleared. In other words, if the CFTC places an additional requirement of clearing on the swap (even if the counterparties fail to meet the requirement), the counterparties get the benefit of the preemption. Furthermore, as discussed above, the set of derivatives explicitly exempt from state gambling and anti-bucket shop laws are derivatives that are not extensively regulated by the CEA. OTC swaps are now, as of the passage of Dodd-Frank, extensively regulated, suggesting, perhaps, that Congress assumes that such extensive regulation operates to occupy the field of OTC derivatives and effectively preempts state anti-gambling and bucket shop laws. Even so, the deletion of OTC derivatives between eligible contract participants from the list of derivatives explicitly exempt from state gambling and anti-bucket shop laws would appear wholly unnecessary. Thus, there is some ambiguity here, allowing for the possibility of the revival of the effectiveness of state anti-gambling and bucket shop laws.

If all the legal ambiguities presented above are resolved in favor of the validity and enforceability of PSDs—a reasonable, and perhaps most likely, resolution—any PSD would be valid and enforceable, i.e., state gambling and anti-bucket shop laws are preempted, if the PSD (i) is executed on a regulated exchange (or an expressly exempt exchange) or (ii) is an OTC derivative between eligible contract participants.

The next Subsection discusses how Dodd-Frank and the CEA address the problematic nature of these PSDs.

D. *Dodd-Frank's "Second-Best" Strategies for Dealing with Purely Speculative Derivatives*

Many provisions of the CEA and the Dodd-Frank Act address the problems of counterparty risk and systemic risk. Dodd-Frank and the CEA do not expressly address the problems and risks associated with PSDs. PSDs are not prohibited nor are they deemed to be unenforceable. Prohibiting them, or at least deeming them to be unenforceable, would be the “first-best” and most appropriate solution for all the reasons discussed in this Article. Dodd-Frank and the CEA do, however, have provisions that reduce the counterparty and systemic risks PSDs pose and other provisions that might reduce the number and size of PSDs. These “second-best” strategies are listed, discussed, and sometimes criticized below.

1. Clearing Requirement

The CEA requires that all swap agreements be submitted for clearing “if the swap is required to be cleared.”²⁰⁴ Clearing is a process in which payouts under a derivatives contract are guaranteed by a central clearinghouse. The most common form of clearing is done through a process known as novation, in which the clearinghouse breaks the derivatives contract in two and becomes a counterparty to both the original counterparties. In other words, the clearinghouse takes the long contractual position vis-à-vis the original short counterparty and takes the short contractual position vis-à-vis the original long counterparty.²⁰⁵ As a result, the original parties no longer bear the counterparty risk of their original counterparties, and instead, they bear the counterparty risk of the clearinghouse.²⁰⁶

It is expected that clearinghouses pose little counterparty risk. Clearinghouses typically require (i) each counterparty to post margin (or collateral), the amount of which might be marked-to-market on a regular basis, and (ii) its membership to post funds and keep the clearinghouse well capitalized so the clearinghouse can pay its winning counterparties in case any losing counterparty fails to meet its payout obligations. The clearinghouse also frequently offsets and settles accumulated obligations. These mechanisms can dramatically reduce the counterparty risk borne by derivatives traders. Derivative traders’ stakeholders, therefore, also bear less risk. And systemic risk—specifically systemic risk stemming from losses a *winning* derivatives counterparty might otherwise suffer—is reduced.

However, Dodd-Frank’s clearing requirement does not eliminate counterparty risk and may not reduce systemic risk at all.²⁰⁷ First, as indicated above, a swap only need be submitted for clearing if it is so required. The CFTC (and the SEC for security-based swaps) determines whether or not particular swaps or particular classes of swaps are to be submitted.²⁰⁸ There have already been federal regulatory decisions

²⁰⁴ 7 U.S.C. § 2(h)(1); Dodd-Frank Act, *supra* note 34, § 723(a)(2). For a description of the mechanics and benefits of clearing, see *supra* note 108 and accompanying text.

²⁰⁵ Note that as a result, the clearinghouse has both a long and short position on identical contracts, and thus bears no market risk.

²⁰⁶ The CEA refers to clearinghouses as “derivatives clearing organization[s].” 7 U.S.C. § 1a(15).

²⁰⁷ The CEA also directs the CFTC, the SEC, and the federal banking authorities to work together to link clearinghouses so that offsetting and settling trades can be done over a larger market. *Id.* § 7a-1(f). If done successfully, having a wider clearing network will reduce accumulated risk.

²⁰⁸ *Id.* § 2(h)(2)(A); Dodd-Frank Act, *supra* note 34, § 723(a)(2). Among the factors that the CFTC must use when determining whether or not to subject any type or class of swap to

exempting large classes of swaps from the clearing requirement. To date, the CFTC and other federal authorities have decided to exempt foreign exchange swaps and foreign exchange forwards from the clearing requirement.²⁰⁹ Ultimately, it is not clear to what extent non-exchange executed derivatives will be cleared.²¹⁰

Second, swaps submitted for clearing may not be accepted. Clearinghouses are not required to accept offered swaps. And, indeed, it can be expected that swaps which are particularly unique or have highly tailored features (also known as “bespoke” derivatives) may not be accepted for clearing.²¹¹ The risks of such swaps may be too difficult to measure or model so there may be no market price for such a swap. Consequently, a clearinghouse may be unable to determine how much margin to require and therefore unwilling to assume the risk associated with bearing an unknown risk. Clearing a swap would be especially troubling for a clearinghouse if it could find itself suddenly under an obligation to pay a huge payment upon some triggering event regarding the swap’s underlying. Dodd-Frank, however, does authorize the Federal Reserve Bank Board of Governors and other prudential regulators to impose more stringent risk management systems and/or capital requirements on nonbank financial companies, bank holding companies, and other entities as a result of any exposure to non-cleared derivatives counterparty risks.²¹²

Third, there is a clearing exception for hedging transactions. This so-called “end-user exception” provides that if a commercial entity enters into a swap agreement in order to “hedge or mitigate commercial

mandatory clearing are the “capacity, operational expertise and resources, and credit support infrastructure to clear the [swap]” and “[t]he effect on the mitigation of systemic risk.” 7 U.S.C. § 2(h)(2)(D)(ii). The CFTC may also stay any clearing requirement. *Id.* § 2(h)(3).

²⁰⁹ See DEPT OF THE TREASURY, *supra* note 37 (announcing the Treasury Department’s decision to exempt certain foreign currency derivatives from the definition of “swap” and thus many of the rules regulating swaps); see also Robert Kuttner, *Blowing a Hole in Dodd-Frank*, AM. PROSPECT (Mar. 18, 2011), <http://prospect.org/article/blowing-hole-dodd-frank> (criticizing this decision).

²¹⁰ Furthermore, as Professor Stout has observed:

The ultimate success of Dodd-Frank’s derivatives clearing requirement as a strategy for reducing system risk . . . depends, to a very great extent, on the professionalism, effectiveness, and political savvy of a small public agency [the CFTC]. This agency, moreover, must confront an enormously powerful coalition comprised of Wall Street investment banks, commercial banks, hedge funds, and investment funds, all of which either have made, or hope to make, billions of dollars trading OTC derivatives.

Stout, *Origin of the Credit Crisis*, *supra* note 11, at 36 (footnotes omitted).

²¹¹ See 7 U.S.C. § 6s(e)(3) (acknowledging that swaps that are not cleared pose a greater risk to the swap counterparty and to the financial system). The CEA also makes it clear that no swap agreement between “eligible contract participants” should be unenforceable based solely on the failure of the parties to have it cleared. *Id.* § 25(a)(4).

²¹² Dodd-Frank Act, *supra* note 34, §§ 165(e)(3)(E), 716(j)–(k).

risk,” the parties to that swap are not required to submit the swap for clearing provided the commercial entity notifies the CFTC how it will meet its financial obligations associated with the swap.²¹³ Curiously, it is only the commercial counterparty that must make such a notification, not its counterparty. If such a swap is not cleared, then that commercial entity bears the credit risk posed by its counterparty, and the counterparty bears the credit risk posed by the commercial entity.

Fourth, clearing does not reduce market risk associated with each swap, or the systemic risk stemming from market risk losses. The market still will move for or against any derivatives counterparty. Eliminating counterparty risk simply means that the winning counterparty will be paid. But the losing counterparty still loses. Someone gambling at a Las Vegas casino bears little counterparty risk—but he is still gambling and may still lose a lot of money! A counterparty which loses its derivatives bets, whether such bets are cleared or not, still loses, still must pay,²¹⁴ and might face collapse as a result—and therefore subjects its stakeholders and society to consequences of that collapse. The collapse of a systemically important entity will still have systemic effects.

A potential victim of such a collapse, or a simultaneous set of such collapses, might be the clearinghouse itself. This observation introduces the last issue, highlighting how mandatory clearing is only a second-best response to the problems created by PSD—clearing does not necessarily reduce systemic risk. The clearinghouse still imposes some degree of counterparty risk—and systemic risk—since *it* might fail.

Clearinghouses are required to possess “the ability to manage the risks associated with discharging the[ir] responsibilities . . . through margin requirements and other risk control mechanisms.”²¹⁵ The CFTC and the SEC have the authority to determine the eligibility of a clearinghouse to clear particular swaps based in part on “the financial integrity” of the clearinghouse.²¹⁶ Nevertheless, it is possible for a clearinghouse to fail, in particular if the clearinghouse fails to manage its risk well or faces an economic shock.²¹⁷ Additionally, the more

²¹³ 7 U.S.C. § 2(h)(7).

²¹⁴ Clearinghouses do not merely pay their winning counterparties without simultaneously demanding payment from their losing counterparties. Losing counterparties may or may not be able to pay.

²¹⁵ 7 U.S.C. § 7a-1(c)(2)(D).

²¹⁶ *Id.* § 7a-1(c)(5)(C); 15 U.S.C. § 78q-1(i) (2012). The Board of Governors of the Federal Reserve and the Financial Stability Oversight Council may also recommend and prescribe risk management standards for derivatives clearinghouses. Dodd-Frank Act, *supra* note 34, §§ 805(a)(2), 807.

²¹⁷ In fact, the Dodd-Frank Act tacitly acknowledges this possibility. 7 U.S.C. § 7a-1(c)(2)(D) (“The margin required from each member and participant of a derivatives clearing organization shall be sufficient to cover potential exposures in *normal* market conditions.” (emphasis added));

derivatives risk becomes concentrated in clearinghouses, the more vital it becomes that they manage their risk well and do not fail. Perversely, it may be the case that such concentration increases systemic risk, not reduces it. Indeed, concentrating risk inside clearinghouses might very well make them “too big to fail.”²¹⁸

Clearinghouses have come close to failing in the past. The Chicago-based Options Clearing Corporation nearly failed following the stock market crash of October 1987.²¹⁹ During the onset of the subprime crisis, The Clearing Corporation had approximately a dozen members, three of which, Bear Stearns, Merrill Lynch, and Lehman Brothers, collapsed during the crisis. Two other members, the Bank of America and Citigroup, received extensive government bailout support. This prompted Professor Griffith to observe pessimistically that the dealers and members who control clearinghouses are often “the same financial institutions on whose watch the housing bubble was inflated, the bursting of which nearly destroyed the global financial system.”²²⁰ This suggests that trusting the clearinghouses to provide adequate risk management is in some part based on undeserved faith.

Indeed, clearinghouses are not in business to serve the public, but to make money. They are often for-profit organizations and can be expected to make risk management decisions that benefit their bottom lines, even if they increase systemic risk (e.g., attracting business by keeping margin requirements low, thus enabling derivatives

id. § 7a-1(c)(2)(I) (requiring that each clearinghouse have “emergency procedures”); *see also* COMM. ON CAPITAL MKTS. REGULATION, THE GLOBAL FINANCIAL CRISIS: A PLAN FOR REGULATORY REFORM 48 (2009), available at <http://capmksreg.org/reports/the-global-financial-crisis-a-plan-for-regulatory-reform> (highlighting that “these mega-concentrations of counterparty risk would demand vigilant regulatory oversight”); COMM. ON PAYMENT & SETTLEMENT SYS., BANK FOR INT’L SETTLEMENTS, RECOMMENDATIONS FOR CENTRAL COUNTERPARTIES (2004) (emphasizing that central counterparties concentrate risk and must bear particular responsibilities for managing that risk, and making recommendations for such central counterparties); Jeremy C. Kress, *Credit Default Swaps, Clearinghouses, and Systemic Risk: Why Centralized Counterparties Must Have Access to Central Bank Liquidity*, 48 HARV. J. ON LEGIS. 49 (2011); Yadav, *supra* note 108, at 389 (describing the how cleared credit derivatives might pose particularly acute risks to the solvency of clearinghouses since clearinghouses are “sorely ill-equipped to contend with the complex legal and economic risks of the credit derivative”).

²¹⁸ *See Hearing Before the Comm. on Fin. Servs.*, 112th Cong. (2011) (statement of Daniel K. Tarullo, Governor, Board of Governors of the Federal Reserve System) (“[F]inancial market utilities such as central counterparties concentrate risk and thus have the potential to transmit shocks throughout the financial markets.”); Editorial, *Another Dodd-Frank Triumph: Did We Mention Its New Source of Systemic Risk?*, WALL ST. J., Feb 16, 2011, at A16.

²¹⁹ Ben S. Bernanke, *Clearing and Settlement During the Crash*, 3 REV. FIN. STUD. 133, 148 (1990).

²²⁰ Sean J. Griffith, *Governing Systemic Risk: Towards a Governance Structure for Derivatives Clearinghouses*, 61 EMORY L.J. 1153, 1189–90, 1190 n.157 (2012) (noting too that “[t]he same could be said, of course, of the regulators”).

counterparties to retain working capital).²²¹ There has been a recent spate of academic literature critiquing the ability of clearinghouses to appropriately manage their own risks. Most have observed that there are within a clearinghouse's membership-oriented governance structure free-rider problems, conflicts of interests, and moral hazards.²²² It is beyond the scope of this Article to thoroughly discuss clearinghouses' problematic governance incentives, or to identify in detail how clearinghouses lack the tools to appropriately manage risk, or how the increased use of clearinghouses might contribute to systemic risk generally. Other commentators have engaged in such discussions and made such observations.²²³ The point this Article makes is that the use of clearinghouses is not a foolproof solution to the risks created by an extensive derivatives market in general or a foolproof solution to the unnecessary, artificial risks created by PSDs.

Despite the imperfect response to the problems of PSDs, however, mandatory clearing might have the effect of dampening the incentives to enter into derivatives, including PSDs, because clearinghouses generally demand their counterparties to post some margin. The consequences and benefits of margin requirements are discussed next.²²⁴

²²¹ A comparison to another set of gatekeepers with institutionally-embedded conflicts of interest, credit rating agencies, seems obvious. See Timothy E. Lynch, *Deeply and Persistently Conflicted: Credit Rating Agencies in the Current Regulatory Environment*, 59 CASE W. RES. L. REV. 227 (2009).

²²² E.g., Griffith, *supra* note 220, at 1156 (observing that each member of a clearinghouse has "an incentive to engage in excessive risk taking as a result of the fact that a significant portion of the cost of that [member's] actions are borne by others" and otherwise might lack the incentives to fully internalize the cost of realizing the public good of engaging in effective management of systemic risk; and proposing a governance structure which includes board members who are accountable to the public); Kress, *supra* note 217; Jeffrey Manns, *Insuring Against a Derivative Disaster: The Case for Decentralized Risk Management*, 98 IOWA L. REV. 1575, 1577, 1581, 1611 (2013) (arguing clearinghouse members may face little incentive to temper excessive leverage amid exuberant markets and "would have incentives to double down on risk exposure, since sufficiently large collective liability exposure in a crisis almost guarantees the failure of the clearinghouse and a government bailout;" and proposing instead that derivatives counterparties obtain "private guarantees to cover a set percentage of their potential [derivatives] liabilities"); Yadav, *supra* note 108. Without taking a position on their merits, I note that the proposals offered by Professors Griffith, Kress, Manns, and Yadav could be imposed in addition to a rule against purely speculative derivatives.

²²³ See *supra* note 222; *infra* note 224.

²²⁴ With regard to PSDs and mandatory clearing, there are at least two other observations, which should challenge our belief in the effectiveness of clearinghouses to deal effectively with PSDs. First, if there were no PSDs, or even if PSDs were unenforceable, the government would not need to subject them to mandatory clearing. And without PSDs, clearinghouses would be stuffed with less risk and would be less systemically important, less likely to be bailed out, more likely to engage in more effective risk management decisions, and therefore less threatening to the health of the economy. Second, it is conceivable that since clearing can normally be expected to decrease the counterparty risk (or at least is perceived as such), the ability to clear PSDs—and consequently bear less risk than one would in the absence of clearing—might actually increase

2. Capital and Margin Requirements

The imposition of capital and margin requirements reduces counterparty risk. Dodd-Frank imposes capital and margin requirements in several ways. For example, Dodd-Frank requires that swap dealers and major swap participants meet both minimum capital requirements and minimum “initial and variation margin requirements” set by the CFTC, the SEC and/or the appropriate federal regulator.²²⁵ Federal regulators may also set margin requirements for swaps that are not cleared.²²⁶ The CEA authorizes the CFTC, when it finds a particular swap or group of swaps that “would otherwise be subject to mandatory clearing” but cannot be cleared since no clearinghouse has listed the swap, to require the swap counterparties to “retain[] . . . adequate margin or capital.”²²⁷

With regard to clearinghouses, Dodd-Frank requires each registered clearinghouse to have “adequate financial, operational, and managerial resources” to discharge each of its responsibilities and have

financial resources that, at a minimum, exceed the total amount that would . . . enable the [clearinghouse] to meet its financial obligations to its members and participants notwithstanding a default by the member or participant creating the largest financial exposure for that organization in extreme but plausible market conditions.²²⁸

Clearinghouse members must have “sufficient financial resources and operational capacity to meet obligations arising from participation in the [clearinghouse].”²²⁹ The CEA continues,

Each [clearinghouse], through margin requirements and other risk control mechanisms, shall limit the exposure of the [clearinghouse] to potential losses from defaults by members and participants of the [clearinghouse] to ensure that (I) the operations of the [clearinghouse] would not be disrupted; and (II) nondefaulting members or participants would not be exposed to losses that

one’s inclination to engage in PSDs! Such increased inclination may even outweigh the cost of normal margin requirements.

²²⁵ 7 U.S.C. § 6s(e)(1)–(2) (2012). These federal regulators include the Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the Farm Credit Administration, and the Federal Housing Finance Agency. *Id.* § 1a(39). Prudential regulators have the exclusive authority to enforce the capital and margin requirements they set. *Id.* §§ 6b-1(b), 6s(d)(2).

²²⁶ *Id.* § 6s(e)(2)–(3) (emphasizing the desirability to “offset the greater risk to the swap dealer or major swap participant and the financial system arising from the use of swaps that are not cleared”).

²²⁷ *Id.* § 2(h)(4)(B).

²²⁸ *Id.* § 7a-1(c)(2)(B).

²²⁹ *Id.* § 7a-1(c)(2)(C).

nondefaulting members or participants cannot anticipate or control.²³⁰

And “[t]he margin required from each [clearinghouse] member and participant . . . shall be sufficient to cover potential exposures in normal market conditions.”²³¹

There are also a number of CEA provisions that predate Dodd-Frank that also demand the establishment of minimum capital and margin requirements. Registered futures associations, for example, must establish minimum capital requirements for their members, possibly reducing the credit risks those members pose.²³² Additionally, the CFTC is authorized to promulgate rules, regulations, and orders to increase the margin requirements of any registered entity.²³³

Minimum capital requirements clearly reduce counterparty risk, but they also operate to restrict the ability of smaller entities to participate in derivatives and the ability of larger entities to participate extensively. Only entities that meet the relevant capital requirements are able to enter into derivatives. Consequently, minimum capital requirements might have the ancillary effect of reducing the volume of PSDs that would otherwise be in the market.

Minimum margin requirements also reduce counterparty risk, but they might dampen the inclination and ability to enter into derivatives, including PSDs. Margin requirements reduce working capital and limit investment opportunities because capital is tied up in margin accounts. Posting margin, therefore, represents a cost to posting entities and consequently dampens the incentive to take on additional derivatives activities. Therefore, although the margin requirements appear primarily imposed in order to reduce counterparty risk (and therefore systemic risk), they have the ancillary effect of damping incentives to enter into PSDs.

But as with the clearing requirements, requirements to meet minimum capital and margin requirements do not reduce a derivative counterparty’s market risk. If the market moves against a derivatives counterparty, they must still pay. Indeed, capital and margin requirements make it more likely that losing counterparties will actually pay.

²³⁰ *Id.* § 7a-1(c)(2)(D)(iii).

²³¹ *Id.* § 7a-1(c)(2)(D)(iv). Each model and parameter used by registered clearinghouses when setting margin requirements must be “risk-based” and regularly reviewed. *Id.* § 7a-1(c)(2)(D)(v).

²³² *Id.* § 21(p).

²³³ *Id.* § 12a(7). The CFTC may not set specific margin amounts except in emergencies. *Id.* § 12a(9).

3. Mandatory Exchange Trading

The Dodd-Frank Act requires any swap that is subject to a mandatory clearing requirement be entered into on an exchange unless there is no exchange which offers such a swap.²³⁴ Additionally, Dodd-Frank requires that anyone who enters into a swap do it on a registered exchange (“designated contract markets”), unless that person is an institutional investor or other sophisticated financial entity.²³⁵

Execution on an exchange, independent of any associated clearing, does not in itself reduce counterparty risk or market risk faced by derivatives counterparties. Nor does it directly reduce any systemic risk posed by the transactions. Exchange trading only lowers contract execution transaction costs for the counterparties. Standardized contract positions are also usually more liquid and easier to price than non-exchange-traded derivative positions. However, transactions made on exchanges can be more easily recorded and made available to regulators. And since there is only a finite set of standardized contracts, it is easier to aggregate and analyze data of outstanding derivative positions. Furthermore, an entity’s speculative exchange-traded positions can be limited, thus capping the amount of PSDs such an entity can be a party to.²³⁶

However, it is also fairly simple for private individuals and retail customers to enter into derivatives on exchanges. Indeed, facilitating the ability to enter into derivatives is one of the goals of most major exchanges. Since many are for-profit companies, they earn more in fees as the number of exchange-executed contracts increase.²³⁷ Their profit motives and competition between them, then, are drivers for providing more efficient service and encouraging the formation of PSDs.²³⁸

²³⁴ *Id.* § 2(h)(8); Dodd-Frank Act, *supra* note 34, § 723(a)(2).

²³⁵ 7 U.S.C. § 2(e). Formally, these institutional investors and other sophisticated financial entities are referred to as “eligible contract participants,” a term that is generally defined to include financial institutions; investment companies; large firms and funds; smaller firms and funds entering into hedging transactions; governmental entities; regulated brokers, dealers, futures commission merchants, and floor traders; and wealthy individuals. *Id.* § 1a(18).

²³⁶ *See infra* Part IV.D.4.

²³⁷ *See* CME GROUP INC., FORM 10-K, at 5 (2014), available at http://www.cmegroup.com/investor-relations/annual-review/2013/_files/downloads/cme-group-2012-annual-report-on-form-10-k.pdf (stating that CME adopts “a for-profit approach to [its] business, including strategic initiatives aimed at optimizing contract volume”).

²³⁸ *See* Carlton, *supra* note 28, at 237–38.

4. Speculative Position Limits

The CFTC is required to occasionally set speculative position limits for individual derivative traders and for classes of traders with regard to specific underlyings.²³⁹ However, the requirement to set speculative position limits is not motivated in any way to the irrational, wasteful nature of PSDs or their negative social externalities. Instead, the CEA requires that position limits be established whenever “excessive speculation” in any commodity derivative may cause “sudden or unreasonable fluctuations or unwarranted changes in the price of such commodity.”²⁴⁰ Such fluctuations or changes have been deemed to be “an undue and unnecessary burden on interstate commerce in such commodity.”²⁴¹ Additionally, derivatives exchanges must also adopt, as appropriate for each contract traded on the exchange, “position limitations or position accountability for speculators.”²⁴² Again, the motivation for adopting such limits is not related to the troublesome characteristics of PSDs. Rather, these limits are to be adopted in order “[t]o reduce the potential threat of market manipulation or congestion.”²⁴³

Regardless of the motivation underlying the imposition of speculative position limits, these limits do have the potential to reduce

²³⁹ 7 U.S.C. § 6a(a)(1) (referring to CFTC-established position limits for “contracts of sale of [a] commodity for future delivery made on . . . contract markets,” “swaps traded on . . . a designated contract market or a swap execution facility” and swaps which are not so traded but which perform a “significant price discovery function”); *id.* § 6a(a)(2)(A) (requiring that with respect to physical commodities the CFTC “establish limits on the amount of positions . . . that may be held by any person with respect to contracts of sale for future delivery or with respect to options on the contracts or commodities traded on or subject to the rules of a designated contract market” and providing a position limit exception for “bona fide hedge positions”); *id.* § 6a(a)(5) (requiring the establishment of similar limits on swaps referencing physical commodities and providing a position limit exception for “bona fide hedge positions”); *id.* § 6a(c) (providing a blanket position limit exception to “bona fide hedging transactions”); *see also id.* § 6a(a)(6) (requiring the establishment of aggregate position limits on certain speculative derivatives referencing the same underlying commodity); *id.* §§ 6a(b), 6i, 6t (collectively prohibiting any person from entering during any one day into any futures agreements or any other agreements (including swaps) which the CFTC determines perform “significant price discovery function[s]” in an amount greater than limits set by the CFTC, unless certain reports are made to the CFTC and records kept).

²⁴⁰ *Id.* § 6a(a); *see* Bob Bernstein, *The CFTC’s Attempt to Impose Speculative Position Limits on Off-Exchange Swap Contracts Likely to Face Continued Legal Challenge*, 30 *TOURO L. REV.* 561, 564–65 (2014) (articulating the economic irrationality of imposing such position limits noting that for every speculator taking one side of a derivatives contract there is a counterparty taking the other side, highlighting that supply and demand, not speculation, determine price).

²⁴¹ 7 U.S.C. § 6a(a)(1).

²⁴² *Id.* §§ 7(d)(5), 7b-3(f)(6).

²⁴³ *Id.* §§ 7(d)(5), 7b-3(f)(6). Indeed a central aim of the CEA is to keep derivatives markets free of price manipulation. JICKLING, *supra* note 154, at 6.

the number of PSDs that are executed, if only because speculative position limits will take some potential PSD counterparties out of the marketplace. It is not clear, however, if these speculative position limits do indeed reduce the number of PSDs and if so, by how much. And indeed, as of January 2014, the CFTC has set position limits only on a limited number of exchange-traded positions.²⁴⁴

One potentially problematic result of imposing individual speculative position limits, as opposed to eliminating or limiting PSDs, is that imposing individual speculative position limits reduces liquidity for hedgers. Position limits are imposed on individual market participants, so the speculative position a market participant takes in a hedger-speculator contract counts against that market participant's speculative position allotment.²⁴⁵ As soon as a market participant reaches his speculative position limit, whether through speculator-hedger positions or PSDs or both, he is no longer able to assume other speculative positions, even speculative positions opposite hedgers. If PSDs were discouraged—but speculative positions were otherwise freely allowed—we would reduce speculative positions without decreasing liquidity for hedgers.

5. Information Reporting and Disclosure

There are many provisions within the Dodd-Frank Act that require information collection and reporting to both regulators and the public. For example, all registered exchanges, clearinghouses, and other market participants must maintain trading records and provide such information to the CFTC, the SEC, and other federal regulators.²⁴⁶ Clearinghouses in particular must disclose an extensive list of information to both regulators and the public including the terms and conditions of each cleared contract; margin-setting methodologies; the size and composition of the clearinghouse's financial resources; and daily settlement prices, volume, and open interest for each cleared

²⁴⁴ The CFTC has imposed speculative position limits on certain exchange-traded corn, wheat, soybeans and soybean products, oats, and cotton derivatives contracts. 17 C.F.R. § 150.2 (2014). The CFTC has recently proposed instituting additional speculative position limits on OTC derivatives referencing various agricultural and other physical commodities. Position Limits for Derivatives, 78 Fed. Reg. 75,680, 75,705–06 (proposed Dec. 12, 2013) (to be codified in scattered sections of 17 C.F.R.).

²⁴⁵ 17 C.F.R. § 151.5(a) (allowing such speculators to characterize such positions as a “bona fide hedging transaction” only if that position is traded away or offset with an offsetting position in a second contract).

²⁴⁶ 7 U.S.C. § 6g(b) (referring to all registered entities); *id.* § 7a-1(k) (referring to clearinghouses); *id.* 7b-3(f) (referring to swap execution facilities); *id.* § 24a(c) (referring to swap data repositories).

contract type.²⁴⁷ Registered swap dealers and many entities holding large swap portfolios must also keep records of their derivatives positions and make them open for inspection to the CFTC and their prudential regulators.²⁴⁸ And the CFTC is required to regularly make available to the public aggregated information relating to trading and clearing in the major swap categories, market participants, and development of new products.²⁴⁹

Perhaps the most noteworthy of the Dodd-Frank provisions, however, are the ones establishing and regulating “swap data reposit[or]ies,” which are defined as “centralized recordkeeping facilit[ies] for swaps.”²⁵⁰ All swaps, even those not cleared, must be reported to a swap data repository, and that information must be made available to federal regulators.²⁵¹ If there is no swap data repository that will accept a swap, the swap must be reported to the CFTC.²⁵²

These information disclosure requirements, especially those requiring information disclosure to federal regulators, certainly appear to be designed to enable regulators to more readily identify potential problems in the market and to take preemptive steps to forestall any impending crisis. Although these information-sharing provisions are not designed explicitly for the purposes of discouraging or addressing the problems unique to PSDs, it is imaginable that they might have an effect of discouraging some speculation in derivatives and in theory might enable regulators to better anticipate and address some of the systemic risks exacerbated by PSDs.

But there is reason to be skeptical about the value of additional disclosures and increasingly available information. Valid information requires the capability to rationally process the information in order to be useful—and there is reason to be skeptical about the ability of the market’s ability to assess an abundance of information in a complex environment. Many market participants do not have the technical and legal capacity to understand much of the complexity of the financial markets in general and complex derivatives in particular, let alone the potential effects of a complex web of innumerable derivatives and contractual relationships.²⁵³ More dramatically, we normally cannot

²⁴⁷ *Id.* § 7a-1(c)(2)(L).

²⁴⁸ *Id.* § 6s(f)–(g), (j). Exchanges and clearinghouses are also required to “provide to market participants sufficient information to enable the market participants to identify and evaluate accurately the risks and costs associated with using the services of the derivatives clearing organization.” *Id.* § 7a-1(c)(2)(L).

²⁴⁹ *Id.* § 2(a)(14).

²⁵⁰ *Id.* § 1a(48).

²⁵¹ *Id.* §§ 2(h)(5), 6r(a); Dodd-Frank Act, *supra* note 34, §§ 723(a)(2), 729.

²⁵² 7 U.S.C. § 6r(a)(1); Dodd-Frank Act, *supra* note 34, § 729.

²⁵³ See generally Steven L. Schwarcz, *Regulating Complexity in Financial Markets*, 87 WASH U.

avoid being fooled by the cognitive biases and faulty heuristics of our human nature.²⁵⁴ Additionally, having some kinds of information without other kinds may paint an inaccurate story. It is also possible to have an overabundance of information, some of it misleading, some of it irrelevant, and all of it collectively too overwhelming to satisfactorily analyze. “In a world of extreme complexity, disclosure and transparency may be a weak prophylactic.”²⁵⁵ Or as Professors Ben-Shahar and Schneider have written,

Although mandated disclosure addresses a real problem and rests on a plausible assumption, it chronically fails to accomplish its purpose. Even where it seems to succeed, its costs in money, effort, and time generally swamp its benefits. And mandated disclosure has unintended and undesirable consequences, like driving out better regulation and hurting the people it purports to help. Not only does the empirical evidence show that mandated disclosure regularly fails in practice, but its failure is inevitable.²⁵⁶

The inability to assuredly collect the right information, analyze it appropriately, and make decisions regarding the information is not unique to the market. Regulators suffer from the same cognitive biases and depend on similar heuristics. Their professional biases may be different than those of market participants, but there seems to be little evidence that we should be confident in regulators’ ability to

L. REV. 211, 220 (2009) (“The complexities of modern investment . . . obscure the ability of market participants to see and judge consequences.”); Steven L. Schwarcz, *Rethinking the Disclosure Paradigm in a World of Complexity*, 2004 U. ILL. L. REV. 1 (explaining the theory of rational ignorance and why institutional investors are increasingly less inclined to analyze complex financial disclosures or to hire experts to do it); Yadav, *supra* note 108 (describing how relatively abundant information was available to the market about OTC credit derivatives prior to the sub-prime crash, yet so many ended up being bad bets).

²⁵⁴ Cognitive psychologists and behavioral finance scholars have discovered and described numerous human cognitive biases and limitations to human rationality. Such biases include overconfidence, anchoring, an availability bias, loss aversion, herding, and a house money effect. See generally GEORGE A. AKERLOF & ROBERT J. SHILLER, *ANIMAL SPIRITS: HOW HUMAN PSYCHOLOGY DRIVES THE ECONOMY, AND WHY IT MATTERS FOR GLOBAL CAPITALISM* (2009); Nicholas Barberis & Richard Thaler, *A Survey of Behavioral Finance*, in 1B HANDBOOK OF THE ECONOMICS OF FINANCE: FINANCIAL MARKETS AND ASSET PRICING (George M. Constantinides et al. eds., 2003); HERSH SHEFRIN, *BEYOND GREED AND FEAR: UNDERSTANDING BEHAVIORAL FINANCE AND THE PSYCHOLOGY OF INVESTING* (2002); ANDREI SHLEIFER, *INEFFICIENT MARKETS: AN INTRODUCTION TO BEHAVIORAL FINANCE* (2000); Cass R. Sunstein, *Introduction to BEHAVIORAL LAW AND ECONOMICS 1* (Cass R. Sunstein ed., 2000). Cognitive limits and biases may explain why so many people enter to PSDs despite their irrationality. See Lynch, *PSDs*, *supra* note 7, at 86–93.

²⁵⁵ Timothy E. Lynch, *The Challenge of Optimism and Complexity: Inadequately Addressed by the FCIC’s Report*, 80 UMKC L. REV. 1127, 1157 (2012).

²⁵⁶ Omri Ben-Shahar & Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U. PA. L. REV. 647, 651 (2011); see also Posner & Weyl, *supra* note 45, at 1355 (“Disclosure rules are notoriously weak . . .”).

consistently make correct evaluations about the market if they are provided with an abundance of raw data about the market in general and derivatives in particular. Indeed, regulators had a large quantity of information about the credit default swap (CDS) market before the subprime crisis was triggered, a crisis in which CDS played a central role, but they did nothing about it.²⁵⁷ Regulators had information about credit rating agencies prior to the subprime crisis,²⁵⁸ and the rating agencies also played a central role in creating the conditions that precipitated the crisis by ascribing what we know in hindsight to have been overly generous ratings on mortgage-related securities (including on CDS underlyings), but regulators did nothing to stop the rating agencies. Even if the regulators thought that ratings were too generous, to try to encourage the rating agencies to issue lower credit ratings in the face of incredible market optimism would have required radical thinking and immense courage and probably would not have been successful. Mere disclosure in a financial world of immense complexity is not the solution to the problems of PSDs. Preferably, there would be few, if any, PSDs to disclose.

6. Prudential Regulators

Dodd-Frank introduced the concept of “prudential regulators” that have authority to regulate swap dealers’ and major swap participants’ participation in the swap markets. The prudential regulators include (i) the Board of Governors of the Federal Reserve System (for state-chartered banks that are members of the Federal Reserve System and certain other banks); (ii) the Office of the Comptroller of the Currency (for national banks, federal savings associations, and certain other banks); (iii) the Federal Deposit Insurance Corporation (for state-chartered banks that are not members of the Federal Reserve System and State savings associations); (iv) the Farm Credit Union (for institutions chartered under the Farm Credit Act); and (v) the Federal Housing Finance Agency (for regulated entities of the Federal Housing Enterprises Financial Safety and Soundness Act).²⁵⁹

The prudential regulators have several rights and responsibilities. Most importantly, prudential regulators have the exclusive authority to enforce the registration and regulatory requirements for all swap dealers and major swap participants for which they are the prudential

²⁵⁷ Yadav, *supra* note 108, at 387.

²⁵⁸ Lynch, *supra* note 221.

²⁵⁹ 7 U.S.C. § 1a (39) (2012).

regulator.²⁶⁰ Such regulatory authority includes setting minimum capital and margin requirements²⁶¹ and having the rights to obtain swap data directly from their prudentially regulated entities²⁶² and from swap data repositories.²⁶³ Although it is difficult to predict how these prudential regulators will regulate going forward, they may act in ways—e.g., impose high minimum capital and margin requirements—that will discourage their regulated entities from entering into as many PSDs as they might otherwise.

7. Eliminating Exempt OTC Derivatives for Sophisticated Entities

One of the most significant consequences of the Dodd-Frank Act with regard to PSDs is the deletion of several provisions of the CEA that had previously exempted institutional and other wealthy investors from most CEA provisions, including mandatory exchange trading and information reporting, while simultaneously explicitly exempting them from “any State or local law that prohibits or regulates gaming or the operation of bucket shops.”²⁶⁴ Prior to Dodd-Frank, because of amendments made pursuant to the Commodity Futures Modernization Act of 2000, the CEA permitted these investors to enter into largely unregulated OTC derivatives agreements with each other provided the underlyings were non-agricultural commodities.²⁶⁵ OTC credit default swaps and synthetic collateralized debt obligations were two examples of derivative contracts referencing non-agricultural underlyings (credit risk metrics and securities cash flows, respectively), and these were conspicuously abundant during the build-up to the subprime crisis and central to the collapse of financial institutions and the magnification of systemic risk.²⁶⁶ Dodd-Frank eliminated the CEA provisions that created these broad exemptions leaving only a subset of derivatives which are explicitly exempt from state gambling laws.²⁶⁷ However, as discussed in Part C, despite Dodd-Frank’s deletion of these explicit preemption provisions, OTC PSDs between institutional and other

²⁶⁰ *Id.* § 6b-1(b).

²⁶¹ *Id.* § 6s(e).

²⁶² *Id.* §§ 6r(c), 6s(j).

²⁶³ *Id.* § 24a(c)(7).

²⁶⁴ *Id.* § 16(e); Commodity Futures Modernization Act, Pub. L. No. 106-554, § 117 (2000).

²⁶⁵ 7 U.S.C. §§ 2(d)–(e), (g), (h) (2000) (current version at 7 U.S.C. §§ 2(d)–(e), (g), (h) (2012)).

²⁶⁶ See Stout, *Origin of the Credit Crisis*, *supra* note 11, at 5, 18–31 (arguing that “the principal effect of the CFMA was to greatly increase purely speculative derivatives trading” and that the increased risk consequently imposed on the economy “explain[s] the scale and scope” of the 2008 credit crisis).

²⁶⁷ Dodd-Frank Act, *supra* note 34, §§ 749(f), 723(a)(1)(B).

wealthy investors may still be enforceable and exempt from state anti-gambling laws.

8. Special Responsibilities with Regard to Special Entities

Many public entities lost considerable money speculating in derivatives in recent years.²⁶⁸ Now, however, under a Dodd-Frank provision, when a swap dealer or major swap participant acts as an advisor to any governmental entity, retirement fund, or endowment—a group of entities termed “Special Entities”—the swap dealer or major swap participant is required to act in the Special Entity’s “best interests.”²⁶⁹ Additionally, when a swap dealer or major swap participant is considering entering into a swap agreement opposite what it knows to be a Special Entity, it is required to have a reasonable basis to believe that Special Entity is represented by an independent representative that “has sufficient knowledge to evaluate the transaction and risks . . . [and] undertakes a duty to act in the best interests of the [Special Entity].”²⁷⁰

Such rules, if conscientiously and rationally followed, would seem to require that swap dealers and major swap participants *never* enter into PSD swaps with such entities. After all, given the irrational nature of purely speculative derivatives, it will usually be in the “best interests” of such an entity to avoid PSDs.²⁷¹ It is hard to believe, however, that these rules will in fact, lead to the elimination of PSDs with Special Entities. Perhaps the best we can realistically anticipate is a mere reduction in the volume of PSDs in the marketplace.

²⁶⁸ For example, Orange County, California, lost approximately \$1.7 billion in 1994 and went bankrupt as a result. PARTNOY, *supra* note 2, at 114–21; Sarah Lubman & John R. Emshwiller, *Before the Fall: Hubris and Ambition in Orange County: Robert Citron’s Story*, WALL ST. J., Jan. 18, 1995, at A1. In the early 1990s, the Louisiana State Pension Fund lost \$50 million, and the City Colleges of Chicago lost \$96 million. PARTNOY, *supra* note 2, at 121. Around the same time the State of Florida lost \$90 million, and Charles County, Maryland lost almost its entire \$24 million budget. *Victims of Derivatives Losses Bring Tales of Woe to Congress*, 21 EXECUTIVE INTELLIGENCE REV. 10, 10, 13 (1994). Libya lost approximately \$1.3 billion in 2011. *Particulars of Claim, Libyan Inv. Auth. v. Goldman Sachs Int’l*, [2014] Claim No. HC14D00310, EWHC (Ch) (Eng.).

²⁶⁹ 7 U.S.C. § 6s(h)(2).

²⁷⁰ *Id.* § 6s(h)(5).

²⁷¹ The only time entering into a PSD is rationally in someone’s best interest is when there is clearly a sucker on the other side. See Lynch, *PSDs*, *supra* note 7, at 84–94. So arguably the only time a swap dealer or major swap participant can enter into a swap with a Special Entity is when the swap dealer or major swap participant believes it is being suckered by the Special Entity. There are exceptions to these special responsibility requirements, namely if the Special Entity initiates the transaction on an exchange or if the swap dealer or major swap participant does not know it is dealing with a Special Entity. 7 U.S.C. § 6s(h)(7).

9. Volcker Rule

Famously, the Dodd-Frank Act's "Volcker Rule" prohibits insured depository institutions and their affiliates from engaging in "proprietary trading," or from acquiring or retaining any ownership interest in hedge funds.²⁷² Consequently, this rule generally prohibits such institutions from entering into speculative derivatives positions,²⁷³ thus safeguarding these banks' depositors and other stakeholders from the risks associated with PSDs and reducing the opportunity for the creation of PSDs generally in the marketplace.

10. Lincoln Pushout Rule

Dodd-Frank prohibits the federal government from providing any bailout assistance, including FDIC deposit insurance and access to the Federal Reserve's discount window, to swap dealers and major swap participants, including insured depository institutions, if they use swaps for speculative purposes.²⁷⁴ Insured depository institutions that enter into swaps only for hedging purposes are exempt from this prohibition.²⁷⁵ This rule is known as the "Lincoln Pushout Rule." It is expected that as a result of this prohibition many commercial banks and other institutions will refrain from entering into speculative swap positions they would otherwise enter into since this rule makes holding these positions more costly. It can therefore be expected that PSD activity generally in the marketplace might decline.

But, of course, not only are PSDs still permitted and enforceable, the costs associated with the Lincoln Pushout Rule may be discounted by swap counterparties if they conclude there is a chance Congress would change the law in an emergency situation authorizing a bailout of systemically important entities. Declaring that you will not bailout is not equivalent to refusing to bailout when there is a compelling reason to assist a systemically important entity.²⁷⁶

²⁷² Dodd-Frank Act, *supra* note 34, §§ 619, 716(m).

²⁷³ *Id.* § 619 (defining "proprietary trading" as "engaging as a principal . . . in any transaction to purchase or sell, or otherwise acquire or dispose of, any security, any derivative, any contract of sale of a commodity for future delivery, any option on any such security, derivative, or contract"). The Volcker Rule is not triggered when a derivative is used for hedging. *Id.* § 619(d)(1)(C).

²⁷⁴ *Id.* § 716.

²⁷⁵ *Id.* The nickname "pushout rule" is based on the fact that insured depository institutions might choose to refrain from speculative swap activities and certain others might choose to "push out" such swaps activities to affiliates. *Id.*

²⁷⁶ Congress had the opportunity to further reduce the incentives to enter into derivatives, including PSDs, by eliminating the so-called "special treatment" of derivatives in bankruptcy.

E. *Regulatory Space to Limit Purely Speculative Derivatives*

Neither Dodd-Frank, the CEA, nor the other significant federal statutes regulating derivatives prohibits PSDs or renders them unenforceable. As just discussed, Dodd-Frank and the CEA do have several strategies that try to limit systemic risk and curb some of the problems associated with speculation in the derivatives markets. These strategies might have an ancillary effect of reducing the volume of PSDs in the marketplace. There may be space, however, under current federal statutes to further limit the number and costs of PSDs. As previously discussed in Section IV.C, it may be the case that with regard to some OTC swaps between eligible contract participants, state gambling and anti-bucket shop laws are not preempted by the CEA. The CFTC and the courts could take this position. Additionally, the CFTC seems to have statutory space to prohibit the execution of PSDs on derivatives exchanges while permitting such PSDs when the social benefits of enhanced price discovery or hedger liquidity are necessary and/or desired.²⁷⁷ This statutory space to so regulate is created by the CEA's concern for the public interest, its aggression towards speculation, its encouragement of net beneficial regulations, and its concern for price discovery. This statutory space is explored briefly below.

1. Public Interest Concerns

Under most circumstances, eliminating PSDs would be in the public interest. They are wealth-destroying in the aggregate for the participants; impose negative externalities on society in the form of increased risks, including systemic risk; are used as tools to engage in

Under current bankruptcy treatment, derivatives counterparties are often allowed to seize and liquidate collateral posted by their collapsing counterparties. This collateral is exempt from automatic stay provisions typically applied to the assets of an entity filing for bankruptcy. As a result of this special treatment rule, entities contemplating entering into a derivatives contract with each other have less incentive than they otherwise would to conduct thorough creditworthiness due diligence on their prospective counterparty and therefore are more likely to execute the derivatives contract. Congress could have eliminated this special treatment but did not. See generally Mark J. Roe, *The Derivatives Market's Payment Priorities as Financial Crisis Accelerator*, 63 STAN. L. REV. 539 (2011); David A. Skeel, Jr. & Thomas H. Jackson, *Transaction Consistency and the New Finance in Bankruptcy*, 112 COLUM. L. REV. 152 (2012).

²⁷⁷ See Stout, *Dangerous Optimism*, *supra* note 20, at 1199 (arguing generally that democracies are particularly ill-equipped to adequately regulate disagreement-based speculation and stating, "[W]hen it comes to regulating optimism-driven speculation, we would do better to rely instead on relatively nondemocratic governing institutions and authorities, such as an independent judiciary, independent agencies, and even private self-regulatory bodies."). Professor Stout appears skeptical that the CFTC is "independent enough to deal reliably with the market failure that results from disagreement-based trading." *Id.* at 1210.

regulatory arbitrage; occasionally lead to socially undesirable conflicts of interest; and consume resources that might be otherwise used to more efficiently allocate capital within the market. Occasionally they provide the public good of enhanced price discovery, and permitting them may occasionally enhance liquidity for hedgers.

As might be expected, a concern for the public interest was one of Congress's driving forces motivating the passage of the CEA and its numerous amendments. Indeed, Section 5 of the CEA expresses the official purpose of the CEA:

The transactions subject to this chapter are entered into regularly in interstate and international commerce and are affected with a national public interest by providing a means for managing and assuming price risks, discovering prices, or disseminating pricing information through trading in liquid, fair and financially secure trading facilities. . . . It is the purpose of this chapter to serve [such] public interests . . . through a system of effective self-regulation of trading facilities, clearing systems, market participants and market professionals under the oversight of the [CFTC]. To foster these public interests, it is further the purpose of this chapter . . . to ensure . . . the avoidance of systemic risk²⁷⁸

As a result of this public interest concern, the CEA is replete with references to “the public interest” and requirements that the CFTC promulgate regulations and otherwise take (or refrain from taking) action “in the public interest.” To cite a few: The CFTC must evaluate the costs and benefits of any proposed rule “in light of . . . public interest considerations.”²⁷⁹ The CFTC is prohibited from registering any association as a futures association unless such association “is in the public interest.”²⁸⁰ The CFTC is authorized, when it finds a particular swap or group of swaps that “would otherwise be subject to mandatory clearing” but cannot be cleared since no clearinghouse has listed the swap, to “take such actions as the [CFTC] determines to be necessary and in the public interest.”²⁸¹ The CFTC shall adopt business conduct requirements for swap dealers and major swap participants as the CFTC “may determine are appropriate in the public interest.”²⁸² When determining whether or not to assist foreign governments in their derivatives investigations, the CFTC must consider whether or not such

²⁷⁸ 7 U.S.C. § 5 (2012).

²⁷⁹ *Id.* § 19(a)(2).

²⁸⁰ *Id.* § 12(b).

²⁸¹ *Id.* § 2(h)(4)(B).

²⁸² *Id.* § 6s(h)(3).

assistance “would prejudice the public interest of the United States.”²⁸³ The list goes on.

Most generally, however, the CFTC “may establish such . . . standards and requirements as [it] may determine are appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of this Chapter.”²⁸⁴ This particular provision is embedded in a section of the CEA that primarily concerns the business conduct standards of swap dealers and major swap participants. However, the plain language of this provision is general in nature and does not limit the provision only to the regulation of swap dealers and major swap participants.²⁸⁵ This provision, therefore, would allow the CFTC to regulate against PSDs for the sake of the public interest.

2. Fewer Restrictions on Hedging Positions

The CEA frequently subjects hedging counterparties and derivatives transactions in which at least one counterparty is hedging to less regulatory oversight than speculating counterparties and purely speculative derivatives. This discrimination against speculation offers space to regulate specifically against PSDs. For example, as discussed above,²⁸⁶ the CEA requires that no one may enter into certain swap agreements unless the swap agreement is offered to a clearinghouse if the swap is required to be cleared.²⁸⁷ This requirement serves the purposes of reducing counterparty risk. However, if at least one of the counterparties is a commercial entity using the swap agreement “to hedge or mitigate commercial risk” there is no requirement to submit the swap to a clearinghouse.²⁸⁸

²⁸³ *Id.* § 16(f)(2).

²⁸⁴ *Id.* § 6s(h)(5)(B).

²⁸⁵ *Id.*

²⁸⁶ *See supra* Part IV.D.I.

²⁸⁷ 7 U.S.C. § 2(h)(1).

²⁸⁸ *Id.* § 2(h)(7)(A). Formally the commercial entity must not be a “financial entity” as defined in 7 U.S.C. § 2(h)(7)(C) and must also notify the CFTC “how it generally meets its financial obligations associated with entering into non-cleared swaps.” *Id.* § 2(h)(7)(A)(iii). Additionally, such a swap need not be executed on a designated contract market or a swap execution facility. *Id.* § 2(h)(8).

These exceptions would seem to reflect the fact that there is no possibility of a significant aggregate loss by a party that enters into a swap agreement to hedge a pre-existing risk. Whatever wealth that hedging counterparty might lose (or gain) under the terms of the swap agreement will be balanced by an equivalent (or near equivalent) gain (or loss) in its commercial transactions. Such an entity should be able, therefore, to make any required payments under its swap agreement by using the proceeds gained in the commercial transactions.

The CEA also directs the CFTC to give favorable consideration to domestic agricultural producers, “so as to better enable the producers to hedge price risk associated with their production” and “to better allow [them] to hedge [the] price risk” associated with the agricultural commodities they may sell.²⁸⁹

Another example concerns trading or position limits. Congress has concluded that excessive derivatives speculation in a commodity under future contracts or swap agreements can produce “unreasonable fluctuations or unwarranted changes” in the prices of underlying commodities.²⁹⁰ Consequently, the CEA has authorized the CFTC to establish “limits on the amounts of trading which may be done or positions which may be held by any person” under futures and swaps in order “to diminish, eliminate, or prevent” the burden in interstate commerce that such unreasonable or unwarranted price fluctuations would impose.²⁹¹ Presumably, hedgers can also negotiate derivatives contracts that have the effect of causing dramatic and even unreasonable fluctuations or unwarranted changes in the prices of underlying commodities,²⁹² but the CFTC is not explicitly authorized to impose trading or position limits on hedgers,²⁹³ and the CFTC is explicitly prohibited from imposing position limits on persons hedging against potentially unfavorable price changes of physical commodities that have cash markets.²⁹⁴ Similarly, in order to become designated as a derivatives contract market, a board of trade must adopt and enforce

²⁸⁹ *Id.* § 6q(a).

²⁹⁰ *Id.* § 6a(a)(1).

²⁹¹ *Id.*

²⁹² *Id.* § 6a(c)(1) (“To determine the adequacy of this Act and the powers of the [CFTC] acting thereunder to prevent unwarranted price pressures by large hedgers, the [CFTC] shall monitor and analyze the trading activities of the largest hedgers . . . and shall report its findings and recommendations to [Congress] . . .” (citation omitted)).

²⁹³ *Id.* (“No rule, regulation, or order issued [by the CFTC establishing position speculative position limits] shall apply to transactions or positions which are shown to be bona fide hedging transactions or positions as such terms shall be defined by the [CFTC] . . . Such terms may be defined to permit producers, purchasers, sellers, middlemen, and users of a commodity or a product derived therefrom to hedge their legitimate anticipated business needs for that period of time into the future for which an appropriate futures contract is open and available on an exchange.”).

²⁹⁴ *Id.*; see also *id.* § 6a(a)(2)(A) (“[W]ith respect to physical commodities other than excluded commodities as defined by the [CFTC], the [CFTC] shall . . . establish limits on the amount of positions, as appropriate, *other than bona fide hedge positions*, that may be held by any person with respect to contracts of sale for future delivery or with respect to options on the contracts or commodities traded on or subject to the rules of a designated contract market.” (emphasis added)); *id.* § 6a(a)(5)(A) (“Notwithstanding any other provision of this section, the [CFTC] shall establish limits on the amount of positions, including aggregate position limits, as appropriate, *other than bona fide hedge positions*, that may be held by any person with respect to swaps that are economically equivalent to contracts of sale for future delivery or to options on the contracts or commodities traded on or subject to the rules of a designated contract market subject to paragraph (2).” (emphasis added)); *id.* § 6a(a)(6).

“position limitations or position accountability for speculators.”²⁹⁵ Swap execution facilities that also operate as trading facilities must adopt similar rules.²⁹⁶ Contract markets and swap execution facilities, however, are not to adopt similar restrictions for hedgers.

Additionally, the CEA seems to limit the CFTC’s ability to define what constitutes a bona fide hedging transaction or position in two particularly notable and relevant ways. First, a speculative position taken in a hedger-speculator derivative counts for that speculator towards his speculative position limits. Secondly, a hedging transaction cannot include hedging positions that lay off PSD risks.

As might be expected, the CEA directs the CFTC to define a “bona fide hedging transaction or position” as a transaction or position that hedges against unfavorable price movements in assets and liabilities a person managing a commercial enterprise has or anticipates acquiring or services that such a person provides or purchases or anticipates doing so in the future.²⁹⁷ But the CEA also directs the CFTC to include as a “bona fide hedging transaction or position” a “transaction or position that . . . reduces risks attendant to a position resulting from a swap that . . . was executed opposite a counterparty for which the transaction would [otherwise] qualify as a bona fide hedging transaction.”²⁹⁸ In other words, if a speculator enters into a swap agreement with a bona fide hedger, consequently assuming the market risk that the hedger originally held, that speculator now has risks attendant to that swap, the market risks of which are the same risk that the hedger originally had. That speculator can now lay off that risk to a third party²⁹⁹ through a subsequent derivatives agreement and have the benefit of the position limit exclusion. Whereas that person speculated in the first derivatives transaction, he is hedging—hedging the risk he incurred as a result of entering into the first transaction—in the second.

However, this CEA provision suggests that a transaction or position which lays off the risk incurred as a result of entering in to a purely speculative swap agreement is *not* a “bona fide hedging transaction or position”—even though once a person enters into a PSD, he incurs the market and counterparty risks associated with that speculative position. Or simply put, “hedging one’s PSD bets” is not “a bona fide hedging transaction.” Consequently, even though that speculator may rationally want to lay off his PSD-related risk to a third

²⁹⁵ *Id.* § 7(d)(5)(a).

²⁹⁶ *Id.* § 7b-3(f)(6)(A).

²⁹⁷ *Id.* § 6a(c)(2).

²⁹⁸ *Id.* § 6a(c)(2)(B).

²⁹⁹ Or, even back to the original hedging counterparty. If so, two contracts would offset, and the two parties would return to their original economic positions.

party, he might be prohibited from doing so, because he might have reached his “speculative” position limit. This prohibition against characterizing “hedging one’s bets” as “bona fide hedging transactions” is reflective of this Article’s more aggressive proposal that contracts in which one is hedging his earlier PSD risks be deemed unenforceable.

Admittedly, the rules restricting speculation and providing favorable treatment to hedgers and hedging transactions appear primarily motivated to eliminate or reduce the threat of price manipulation of the underlying commodity.³⁰⁰ They are not motivated to discourage PSDs specifically or address the problematic nature of PSDs. And the various restrictions are primarily directed at speculators, even speculators in hedger-speculator transactions, and do not solely target speculators in PSD transactions. If regulatory space is to be found permitting restrictions of PSD formation and enforceability, however, there ought to exist statutory favoritism towards hedging transactions. Such favoritism clearly exists.

3. Cost-Benefit Analysis

The CEA requires the CFTC to engage in a cost-benefit analysis before promulgating rules.³⁰¹ Such a cost-benefit analysis must consider the protection of market participants and the public, efficiency, competitiveness, price discovery, risk management practices, and other public interest concerns.³⁰² Although the plain language of this requirement requires the CFTC to do a cost-benefit analysis before it acts, this requirement could be framed as one which requires, or at least permits, the CFTC to promulgate rules and otherwise act in ways that have a net beneficial effect. Coupled with Congress’s express authorization of the CFTC to “establish such . . . standards and requirements as [it] may determine are appropriate in the public interest,”³⁰³ statutory permission to undertake any net beneficial actions certainly seems to exist.

As has already been demonstrated, PSDs impose a net cost on society, except where they provide entertainment utility, augment the price discovery process when necessary, or increase liquidity for hedgers when necessary. It would be beneficial to society, then, to prohibit PSDs or deem them unenforceable except in those certain circumstances. The

³⁰⁰ See 7 U.S.C. §§ 6a(a), 7(d)(5)(a).

³⁰¹ *Id.* § 19(a)(1).

³⁰² *Id.* § 19(a)(2).

³⁰³ *Id.* § 6s(h)(5)(B).

CFTC would be permitted to undertake such action and perhaps even has some level of obligation to undertake such action.

4. Price Discovery Concerns

The CEA explicitly states that the existence of an active derivatives market serves the public interest in part because it serves a price discovery function.³⁰⁴ As described above in Section III.B, the market's aggregate determination of the prices of commodities, the values of rates, and the likelihood of events can be revealed through an active market which enables the formation of derivatives contracts which reference these commodities, rates, and events. As a result, there are many provisions within the CEA that limit transactions that might have the effect of disturbing this price discovery function.

For example, trading facilities and traders that might otherwise be exempt from certain CEA provisions and CFTC rules become subject to those provisions and rules with respect to their operations and transactions concerning derivatives contracts that the CFTC determines serve a "significant price discovery function."³⁰⁵ Of particular note are rules that subject traders to position limits on contracts that "perform or affect a significant price discovery function."³⁰⁶ Additionally, in order for a board of trade to be designated a contract market, it must "protect[] the price discovery process of trading."³⁰⁷

It seems clear that Congress fears that excessive speculation and market manipulation may cause "sudden or unreasonable fluctuations or unwarranted changes in the price of . . . commodit[ies]" and that such fluctuations and changes might be an "undue and unnecessary burden on interstate commerce."³⁰⁸ Interestingly, there appears to be no provision in the CEA or anywhere else that *encourages* the price

³⁰⁴ *Id.* § 5 ("The transactions subject to this chapter . . . are affected with a national public interest by . . . discovering prices, [and] disseminating pricing information . . ."); *see also id.* § 2(a)(13)(B) (stating that one of the purposes of the CEA is "to authorize the [CFTC] to make swap transaction and pricing data available to the public in such form and at such times as the [CFTC] determines appropriate to enhance price discovery").

³⁰⁵ *See id.* § 6a(a); *id.* § 1a(18) (defining "eligible contract participant" to exclude floor brokers and floor traders trading significant price discovery contracts on electronic trading facilities); *id.* § 1a(40) (defining "registered entit[ies]" to include any electronic trading facility with respect to its execution of any significant price discovery contract); *id.* § 6g(a) (imposing reporting requirements on certain persons who engage in transactions on any electronic trading facility in "significant price discovery contract[s]").

³⁰⁶ *E.g., id.* § 6a(a)(1).

³⁰⁷ *Id.* § 7(d)(9).

³⁰⁸ *Id.* §§ 6a(a)–(b), 6i, 6t. Congress deemed such fluctuations and changes to be "undue and unnecessary burden[s] on interstate commerce." *Id.* § 6a(a)(1).

discovery function of speculative derivatives trading at times when there is insufficient trading activity. However, the CFTC is required to consider price discovery issues when doing its cost-benefit analysis of any proposed rule,³⁰⁹ presumably in part to ensure that efficient price discovery continues to be a natural and common consequence of the derivatives markets.

This concern with the price discovery consequence of the derivatives markets and the requirement that the CFTC consider price discovery when considering proposed rules jibe with this Article's recommendation that PSDs be permitted and enforceable for particular underlyings when it is determined both that we need (or would like) the market to impound more information into the price discovery process for those particular underlyings, and that that need outweighs the social and private costs of the PSDs.

5. Hedger Liquidity Concerns

Congress also expressed a concern in the CEA that there be sufficient liquidity available for hedging counterparties. Liquidity is improved by the existence of speculators in the market. Consequently, the CEA directs the CFTC, when the CFTC is setting speculative trading limits on derivative positions referencing physical commodities, to set limits to the "maximum extent practicable . . . to ensure sufficient market liquidity for bona fide hedgers."³¹⁰ This concern for hedger liquidity and the direction to restrict speculation generally in such a way that does not undermine such liquidity jibe with this Article's recommendation that PSDs may be permitted and enforceable for particular underlyings when it is determined that opening up the market to PSDs will have the ancillary effect of improving hedger liquidity,³¹¹ and that that need outweighs the social and private costs of the PSDs.

CONCLUSION

Keynes once wrote, "When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done."³¹² Although the capital development of this country is not

³⁰⁹ *Id.* § 19(a)(2).

³¹⁰ *Id.* § 6a(a)(3)(B)(iii).

³¹¹ Recall that PSDs themselves directly reduce hedger liquidity since speculators contract with speculators, thus sopping up potential counterparties for would-be hedgers. *See supra* Part II.B.2

³¹² JOHN MAYNARD KEYNES, *THE GENERAL THEORY OF EMPLOYMENT, INTEREST, AND MONEY* 159 (1964).

merely a by-product of gambling activities, it is an apt comparison. Like a casino, the financial industry often expends a significant amount of transactional energy and resources that decrease the well-being of the country. Purely speculative derivatives are a product of this casino.

PSDs are bets, pure and simple. Every counterparty entering into a PSD, except if he or she is being entertained by it, is either acting in an irrational way or taking advantage of a sucker on the other side of the transaction. Except within a limited set of circumstances in which PSDs might be desirable to augment the price discovery function or to enable increased liquidity for hedgers, PSDs serve no social purpose. They merely shift value from one counterparty to another while destroying aggregate wealth. PSDs are also used for engaging in regulatory arbitrage and occasionally pose undesirable conflict of interest issues. They do not serve to promote efficiency in the capital markets, and they increase overall risk in the marketplace. As a result, PSDs should normally be void for public policy reasons and deemed unenforceable contracts. Such a rule would be most effective if enacted globally.

Derivatives regulation in the United States is scattered among various federal and state statutes and various federal and state regulatory authorities and among three separate industry regimes. One of these regulatory regimes, the gaming regime, exists to promote and enforce PSDs. And, indeed, it may be rational to engage in such derivatives for their entertainment value. Another regime, the insurance industry, prohibits the enforcement of PSDs altogether. The third regime deals with what we know as financial derivatives and largely permits PSDs and deems them enforceable. Such permission is curious and undesirable given the social costs of PSDs.

The Commodity Exchange Act and the Dodd-Frank Act provide, seemingly inadvertently, various second-best strategies for addressing the problematic nature of PSDs. These strategies—in particular, increased clearing requirements, increased capital and margin requirements, required information reporting, the elimination of previous regulatory exemptions, the prohibition against proprietary trading for certain commercial banks, and a declaration that no bailout financing will be given to financial entities speculating in derivatives—do not eliminate PSDs or their problems. At best they discourage firms from entering into PSDs and therefore limit the harms inflicted by PSDs. The extent of discouragement, however, is unclear. At worst these second-best strategies do nothing to decrease PSD costs and risks.

Nevertheless, given ambiguities with the CEA, certain OTC derivatives may be subject to state gambling and anti-bucket shop laws. Additionally, there is statutory space within the CEA for the CFTC to adopt rules restricting the creation and formation of PSDs on regulated exchanges. That space is found in themes permeating the CEA—the

concern for the public benefit, the obligation of the CFTC to act in the best interest of the public and for the net benefit of society, the favorable treatment of hedging transactions, and the disfavorable treatment of speculating transactions. Additionally, there are themes within the CEA that support making limited exceptions to the prohibition and non-enforcement rules when it would benefit society, specifically themes concerning price discovery and hedger liquidity.³¹³

Purely speculative derivatives magnified the scope of the subprime crisis and accelerated and deepened our economic decline. Congress failed to take action against PSDs in the wake of the crisis. Yet Congress has left open the possibility of the courts and the CFTC doing so. Until it is done, the market casinos of Wall Street continue to attract customers with ringing bells, flashing lights, and cheap food—all in the guise of potential financial winnings.

³¹³ *But see* Bd. of Trade of Chi. v. Christie Grain & Stock Co., 198 U.S. 236, 247–48 (1905) (stating an opinion by Justice Holmes when referring to futures regulation that “[p]eople will endeavor to forecast the future and to make agreements according to their prophecy. . . . It is true that the success of the strong induces imitation by the weak, and that incompetent persons bring themselves to ruin by undertaking to speculate in their turn. But legislatures and courts generally have recognized that the natural evolutions of a complex society are to be touched only with a very cautious hand, and that such coarse attempts at a remedy for the waste incident to every social function as a simple prohibition and laws to stop its being are harmful and vain.”).