

The Nature of Hedging Risk in Derivative Contract: Modeling an Enforceable Risk-Shifting Contract in Indonesia

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Abstract

This writing is intended to convey the basic ideas of hedging in derivatives. The subject areas of concerns are central ones for the nature of hedging risk in derivative contract. Because the main object is to present an understanding of derivatives usages and risk management using derivative contract, this writing had modeled fundamental legal framework of enforceability of contract derivatives both in hedging and speculative transactions. In order to take full advantage of the opportunities they afford, we need to have a thorough understanding of how derivatives are valued. Without an understanding the economic factors that drive valuation, we wouldn't know what effects do derivative have, therefore we cannot detect risk accurately. Since hedging risk is vitally important, it could be a matter of difference to a contract.

Keywords: hedging; speculative; derivative contract.

I. Background

A. General Overview

The name of derivative is self-explanatory. A derivative is basically a financial product which derives from an underlying market. It refers as a financial instrument whose payoffs and values are derived from, or depend on, something else¹. Most derivatives are forward, future agreements or swaps.

Derivatives are very handy so that most firms use them as tools for changing the firm's risk exposure. Derivatives are to finance what cook's knives are to chef. By using derivatives, the firm can cut away unwanted portions of risk exposure and even transform them into quite different forms. Even for individuals, derivatives are too common so that many of us do not realize that we have been performing forms of derivative transactions in our daily lives. Commodity futures for example, prior the celebration of Eid at-Fitr, market prices on certain commodities tend to rise as the demand increases. Most likely, commodities that commonly purchased become scarce and expose the risk of unavailability on the day of *Eid at-Fitr*. To protect against adverse movements in market price, we may purchase any commodities now for the use of later date. By doing so, we engage in a risk-reducing strategy by committing to buy of our anticipated commodities at a price that is fixed long before *Eid at Fitr* with more guaranteed availability.

When we reduce our risk exposure with the use of derivatives, it is said to be hedging. They are commonly used to protect against adverse movements in interest rates, exchange rates, or even market price. Hedging can also be used for speculation to merely change or even increase the firm's risk exposure once we become opportunistic to outsmart the derivatives. Most of sad experiences with derivatives have occurred not from their use as instruments for hedging and offsetting risk, but rather from speculation². In terms of contract, a derivative contract is a contractual agreement to execute an exchange at some future date. The term derivative arises from the fact that the agreement derives its value from the price of an underlying asset, such as a stock, bond, currency, or commodity. A stock index futures derives its value from an underlying stock index, a foreign currency option derives its value from an underlying exchange rate, and so on. The main feature of the transaction specified in a derivative contract is that it will be executed in the future rather than today.

B. Derivative Markets

Fundamentally, there are two types of derivative markets—exchange-traded markets and over-the-counter (O.T.C) market. Exchanges facilitate trading in standardized contracts, they normally offer deep and liquid markets, and the financial integrity of trades is guaranteed by the exchange's clearinghouse. Furthermore, exchange-traded derivatives are in standard amounts and for standard periods. On the other hand, O.T.C markets can tailor contracts to meet customer needs to the specific requirements. That said, counterparties are left to their own mechanism to arrange protection from counterparty contractual default. This writing focuses on O.T.C derivatives.

The main differences between the exchange-traded (ET) markets and the OTC derivatives markets for derivatives may be summarized as follows:

¹ So for instance, a currency derivative derives from the foreign exchange market; an equity derivative derives from a stock market and an interest rate derivative derives from a cash or money market.

² The three leading horror tales: Procter & Gamble, Orange County, and Metallgesellschaft.

	Regulation	Standardization	Counterparty risk	Price risk	Legal Risk	Settlement risk
ET	Highly regulated (exchanges & traded products)	Mostly standardized: contract size, tenor, expiration date, approved products	Making sure all payments for margin and top-up margin, once the initial trade has been done	Can be closed out because the markets are liquid	Generally subject to a very detailed legal framework	Ensures parties will comply within strict time limits
OTC	Gradually regulated	Design to meet specific requirements	Each party focuses on other's creditworthiness and ability to perform its obligation	Not possible if the contract is complex	Not always, often requires legal opinions	Settlements can be delayed, net payment maybe illegal

C. Main Products

There are four types of commonly traded derivative contract: forwards, futures, options, and swap. A forward transaction is basically an agreement to an exchange that will take place in the future. No money changes on spot as a cash (or spot) transaction exchanges an asset that takes place today. On spot transaction, the buyer pays the seller an agreed-upon price in cash and the seller normally delivers the asset, while on forward transaction, both the buyer and the seller simply agree upon the terms of the exchange. The formalized terms of exchange in a contract often called a forward contract which includes: (a) the price per unit of the asset that the buyer will pay; (b) the number of units of the asset that will be delivered; and (c) the date on which the delivery will take place.

A futures contract is virtually identical to forward contract. The main difference is that the gain and/or losses on a futures position are posted each day. In most risk management applications, forwards and futures contracts can be used interchangeably as long as they specify whether settlement is through deliver or in cash.

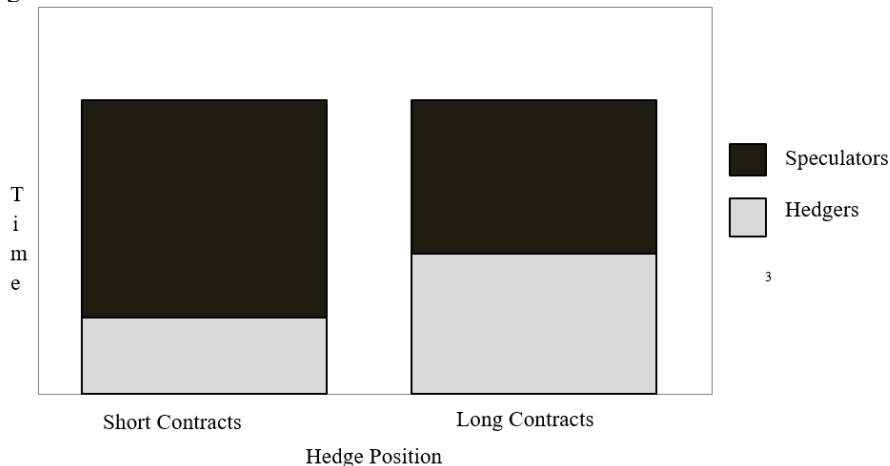
Like a forward, an option is an agreement to exchange an underlying asset at a fixed price on some future date. However, unlike a forward, an option provides the right, but not the obligation, to buy or sell the agreed underlying asset.

A swap is an agreement between two parties to exchange or “swap” a series of periodic payments at a price agreed upon today. As in interest rate product, the most common interest rate swap is a *plain-vanilla interest rate swap* which payments will be made on fixed rate debt for floating rate debt.

II. Hedging

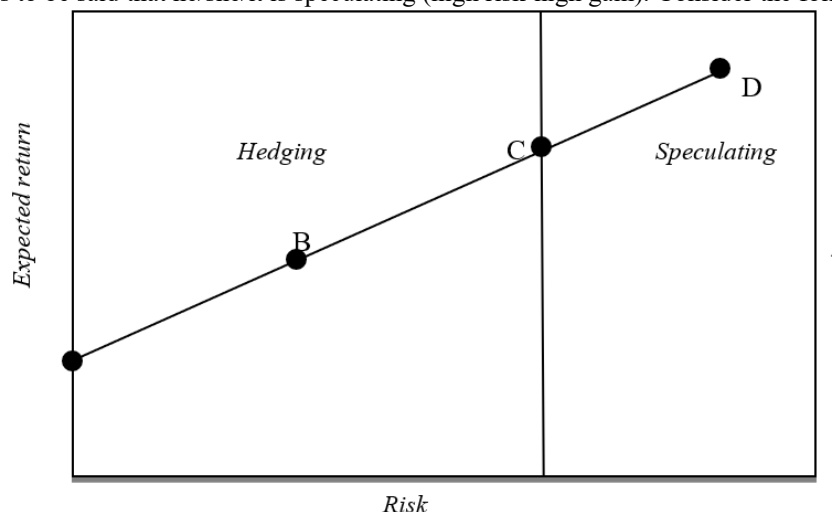
There are two types of hedges, short and long. Both types are equally important as the core of a trade that reduces the risk of the individual or firm’s current position. A short hedge is a hedge involving a long position in the spot market and a short position in the futures, while a long hedge is the opposite.

To determine how “short” and “long” a hedge is by setting a hedge position to selling (or buying) the futures while holding a short (or long) position in the underlying. A hedge position also helps to differentiate between hedgers and speculators. The following figure shows, *first*, how the total number of short contracts – when broken down into two groups, can be used by hedgers who trade to lock in the price at which the asset can be sold (short hedgers), and speculators who trade to benefit from an anticipated price drop (long hedgers). *Second*, how the total numbers of long contracts can be used by hedgers who trade to lock in the price at which the asset can be purchased (long hedgers), and speculators who trade to benefit from an anticipated price increase (short hedgers). These positions in contracts between hedgers and speculators are varies by underlying asset and through time.



Furthermore, the relation between expected return and risk in every trade is central to the understanding risk

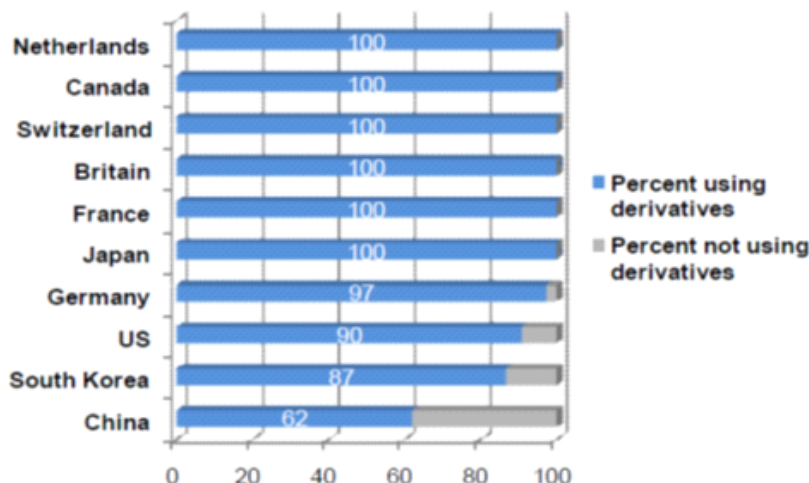
management using derivative contract. When an individual or firm desires more on expected return instead of risk tradeoff, it is to be said that he/she/it is speculating (high risk-high gain). Consider the following figure.



III. The Global Usage of Derivatives

A. Top 10 Countries For Companies Using Derivatives

Although the use of derivatives is common to companies worldwide, the survey results suggest that there are regional differences. All the reporting companies based in the Netherlands, Canada, Switzerland, Great Britain, France, and Japan use derivatives. Among the rest of the ten countries with the largest number of companies in the Fortune Global 500, 97 percent of German companies, and 92 percent of US-based companies report using derivatives. Within the ten largest user countries, derivatives use is lower among South Korean (87 percent) and Chinese (62 percent) companies. Finally, large companies in emerging market jurisdictions report high rates of derivatives use. For example, of the six Indian firms and five each Russian, Brazilian, and Mexican firms in the sample, all report using derivatives.¹



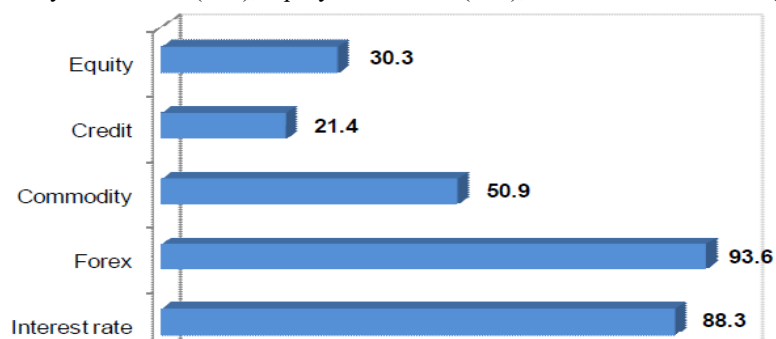
Source: 2009 ISDA Derivatives Usage Survey.

The survey also shows that derivatives use is almost universal borders. Despite occasional controversies, the use of derivatives for risk management is now commonplace among financial institutions and corporations as to be considered routine. This can be seen from the following survey findings: derivatives usage by risk type, derivatives usage cross-industry, derivatives usage by financial and non-financial firms, and derivatives usage by company size.

¹ 2009 ISDA Derivatives Usage Survey from <http://www.isda.org/statistics/>
 ISDA published the results of its first survey of derivatives usage by the world's major companies in 2003. The 2003 ISDA Derivatives Usage Survey found that 92 percent of the world's 500 largest companies, a broad-ranging sample covering industries that included banking, mining, manufacturing, aerospace, wholesalers of office and electronic equipment, and retail, used derivative instruments to manage and hedge their business and financial risks.

B. Usage By Risk Type

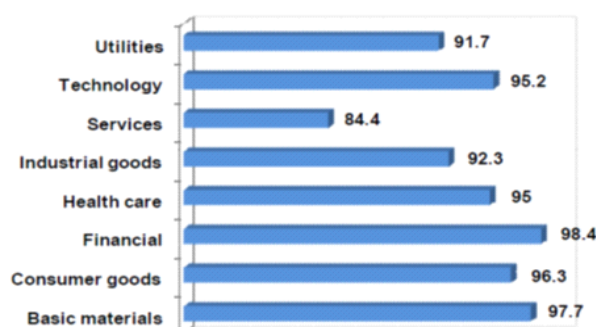
The following chart shows the use of derivatives by type of risk covered; the numbers are percent of companies in the sample using derivatives. Not surprisingly considering the global scale of the companies surveyed, the largest number of companies (441) report using foreign exchange derivatives, followed by interest rate derivatives (416), commodity derivatives (240), equity derivatives (143), and credit derivatives (101)¹.



Source: 2009 ISDA Derivatives Usage Survey.

C. Usage By Cross-Industry Comparisons

Companies in all industries report using derivatives to manage risks. The following chart shows that the use of derivatives by financial services companies is almost universal (98 percent), followed by basic materials companies (97 percent), technology companies (95 percent), and health care, industrial goods, and utilities (92 percent each). Services companies report the lowest usage rates (88 percent).



Source: 2009 ISDA Derivatives Usage Survey.

D. Usage By Financial and Non-Financial Firms

The following table illustrates further point that financial companies (banks-including securities firms, insurers, and other diversified financial firms) are active. Banks are active in all types of derivatives, insurers in all but commodities, and diversified firms mainly in interest rate and currency derivatives. By contrast, non-financial firms are less involved in equity and credit derivatives.

Furthermore, the results also show that non-financial companies typically use derivative to manage risks inherent to their industry. For example, the use of commodity derivatives by utilities and companies in basic materials, or to manage financial risks stemming from changes by macroeconomic conditions – as evidenced by the widespread use of interest rate and currency derivatives.

	No. of firms	Use derivatives	percent				
			Interest rate	Currency	Commodity	Credit	Equity
Banks	71	100	99	100	87	86	86
Insurers	45	96	87	89	24	64	76
Diversified fin'l	7	100	100	86	29	43	29
Non-financial	377	93	80	86	44	2	12
Total	500	94	83	88	48	20	29

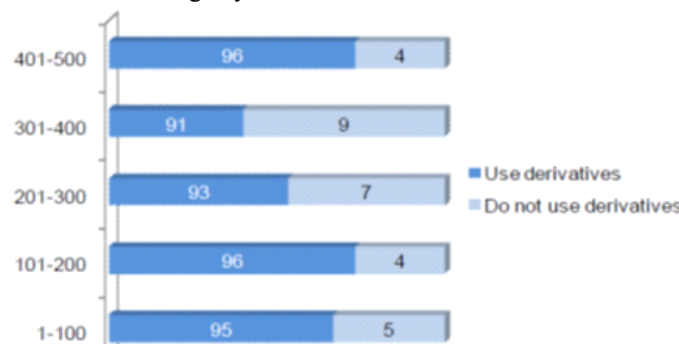
Source: 2009 ISDA Derivatives Usage Survey.

¹ *Ibid.*

E. Usage By Company Size

One might expect derivatives usage to be relatively higher among the largest companies in the sample, but the result shows that derivatives usage is almost uniformly distributed across companies of all sizes: derivatives use throughout the 500 firm sample is as high as for the 100 largest firms¹.

The following chart shows derivatives usage by 500 firm sizes.



Source: 2009 ISDA Derivatives Usage Survey.

F. Concluding Findings

1. New survey shows that 94 percent of the world's largest corporations report using derivatives to manage business and macroeconomic risks;
2. foreign exchange and interest rate derivatives are the most widely used instruments among large global corporations;
3. Reported derivatives usage was uniformly high among companies based in developed economies²; and
4. Financial institutions, corporations, and investors become more integrated into the international financial system. This clearly shows the need for risk management tools has encouraged growth of domestic derivatives markets, both on exchange and over-the-counter.

IV. Modeling An Enforceable Risk-Shifting Contract

A. The Real Threat: Unregulated Derivatives or Speculators?

Common legal issues on derivative transactions that threaten to bring the whole economy down had brought derivatives under strict government control and supervision³. Policymakers concern on more and more regulation of financial derivatives trying to clarify the legal enforceability of derivatives transactions. Furthermore, numerous efforts from lawmakers on special treatment of collateral in the event of the insolvency of counterparties had caused hyper regulated regarding derivatives transactions. Despite considerable growth in the past years in Indonesia, the potential of derivatives has yet to unfold. Perhaps from the regulators point of view, the primary reason is lack of "customized" legal frameworks to improve the efficiency of collateral transactions.

For what further comfort to those worried about the dangers from unregulated derivatives, I assure that derivatives already are extensively and traditionally regulated. Derivatives aren't new, innovative financial products have been traded before, even the Babylonians used derivatives to bet on trading caravans. Although derivatives are hard to value, they can be used to hedge risk. A car owner, for example, hedges by purchasing all-risks and third party accident insurance, essentially staking the insurance company that the car will be crashed. If the car accident happens, the car owner wins the "stake".

But stakes can also be used to speculate, and speculation created risks where there were none before. This is especially true when speculators who make different predictions trade and misuse it with each other. For example, I found exchange rate on certain foreign currency is very useful especially future transactions prior my departure to overseas that (hedges exchange rate at the lowest rate before it goes up). But when I speculate trade with another speculator, attempting to force derivative transaction on foreign exchange onto differential margin with Bank for example (buy-sell), we both take on new risks they were not exposed before (I think exchange rate will be up; the Bank thinks it is going down).

Of course, derivatives speculation in theory may provide social benefits that offset the social costs of systemic risk. Economists, for example, often claim speculators add liquidity to markets, and improve the accuracy of market prices. Yet there is virtually no evidence that legalizing speculative O.T.C. derivatives

¹ *Ibid.*

² *Ibid.*

³ For example, Procter & Gamble dropped \$150 million or so on derivatives. The big German conglomerate, Metallgesellschaft, that supposedly dropped ten times that amount, or close to a billion and a half on oil futures.

trading has provided significant benefits to the overall economy (although it clearly has provided benefits to Goldman Sachs and other winning derivatives traders). Meanwhile, taxpayers have spent nearly \$180 billion on the A.I.G. bailout alone¹.

What to do? One possibility is to simply go back to how the derivatives were used. Were they used to take a position on market prices, interest rates, exchange rates were likely to move; or were they used to avoid market movements? I assure that the nature of derivative is hedging risk, therefore, I go with the second. The misuse of derivatives led to the public's misunderstanding about derivatives which contribute to the public's sense of uneasiness about derivatives. By further academic research, we can hope, to restore the public's concerns over derivatives disasters and the apposite use of derivative.

An alternative might be to learn from history. As a start, refuse to enforce zero-sum transactions from derivative contract that did not serve a true hedging purpose. This will restrain speculative contract as well as preventing market manipulation, fraud, and other market abuses. Any derivative contract or "difference contract" that carries speculative trades cannot be categorized as contract, especially in countries that do not regulate gambling in any forms at any scale such as Indonesia.

These two approaches replace the doctrine of *caveat venditor* with that of *caveat emptor*, that is, the public's and firms' true understanding over the nature of hedging risk in derivative contract, that it to reduce risk. The cost of reliance for a seller to warn the buyer about hidden dangers associated with the use of the derivative contract (doctrine *culpa in contrahendo*) is too high – since this information may cause the buyer not to trade.

B. The Enforceability of Derivative Contract

Like most jurisdictions, Indonesia has anti-gambling laws design to restrict activities such as lotteries and gaming². In the absence of legislation that explicitly recognizes the right of sophisticated parties to enter into derivative contracts – risk-shifting contracts for purposes of risk management, courts should interpret anti-gambling statutes by prohibiting speculative trading. Therefore, any speculative contracts are not derivative contracts, and they shall be deemed unenforceable.

Since a derivative is a financial trade that specifies the terms of a future transaction or set of transactions in some underlying asset for hedging purpose, and a contract is a legally enforceable agreement (express or implied), thus, an ideal model of derivative contract shall cover seven circumstances :

1. Derivative contract shall provide legal means by which all forms of breaches must be settled by providing legal procedures that regulate the ways in which rights and liabilities can be protected and imposed by officials to conclude claims of the conflicting parties.
2. Since all contract laws are backed-up by enforcement machineries, derivative contract shall enable parties to create binding orders and binding force of law.
3. Derivative contract shall create protections that encourage parties to enter into interactions in reliance of law's ability to defend their interests.
4. Derivative contract shall create legal effect that speculative tradings as unlawful act are unenforceable, while breaches of hedging contract will be compensated or enforced
5. By refusing to enforce speculative trading, derivative contract shall prevent future disputes from arising and inhibits further unregulated conflicts.
6. The nature of hedging risk in every trade and derivative transactions shall be transformed into legally binding contract that enforceable which facilitate and integrate the nature of problems.
7. The enforceability of derivative contract that serves hedging purpose shall decreases the misuse of derivative contract.

In terms of standard-form contracts, often called boilerplate or fine print, are the most common type of economic contract. They apply to untold billions of commercial transactions per year. In a typical scenario, a buyer purchases a good or service and is presented with a preprinted form contract with terms pertaining to dispute resolution, remedies for product failure, and warranties – among others, with little opportunity to negotiate the terms. Academics, courts, and policy makers have long debated the degree to which standard-form derivative contracts should be enforced.

Recent survey showed that, in many circumstances, a majority of buyers do not read fine print. For many buyers, too much time is required to read and give meaningful assent, and fine print can be too difficult to understand or may seem unimportant³. Thus, a regulatory approach focusing on: i). standardizing the terms and conditions of derivative contracts; and ii). mandating the disclosure of their content in standardized manner, are

¹ www.chicagobooth.edu/faculty/selectedpapers/sp75.pdf

² For *Dayak* tribe (Borneo island aborigines), it is their custom to host and held gambling not only during traditional ceremonies but also gambling became daily errand, while national law (and probably most laws) aim at controlling gambling as it considers to be unlawful act.

³ Bakos, Y., et all, (2014), "Does Anyone Read the Fine Print? Consumer Attention to Standard-Form Contracts", *The Journal of Legal Studies* 43 (1), The University of Chicago Press, U.S.A., 3-30.

The central economic question is whether the fact that a majority of buyers enter standard-form contracts with imperfect information results in a market failure: if buyers do not factor contract terms into their purchase decisions, sellers lack incentives to provide anything more than the minimally required legal protection.

more likely to increase readership and improve the enforceability of standard-form derivative contracts.

When the terms are prominently accessible and consumers are required to acknowledge reading and agreeing to the terms before entering a derivative transaction, making derivative contract terms easier to read, understand, and compare. Enforceability in this context relies heavily on regulation that aspires to promote the emergence of an informed fraction of consumers through additional disclosure.

There are numerous reasons why the consumers need protection in general:

1. **Poor bargaining position**
Derivative markets continue to grow at a rapid rate, with thousands of new product variations being introduced every year. The consumer is confronted with a huge and constantly changing array of transactions. They are standardized and ready to be used that give limited choice, making transactions almost unknown. Hence, consumer cannot value and assess risk as well as understanding the structure of the markets within which they are traded.
2. **Information gap**
Factual information is often unavailable. Derivative products are marketed in several models with little information about the real difference. The consumer does not have the knowledge necessary for an intelligent comparison and has little or even no experience with the product because: i. They never have used it before; ii. The product has been introduced for the first time; or iii. A previous unhappy experience with a similar product that may involve a risk of repeating the same mistake.
3. **Advertising practices**
Advertising is an important part of the modern marketing system. The purpose is to sell goods and services by securing acceptance or greater use of a product, educating prospective consumers about the benefits or merits of a product, brand or model, informing prospective consumers about new products or changes in trends.¹ In their efforts to influence consumers, however, many advertisers use misleading or deceptive methods, even sometimes deliberately creating a false image about derivative transactions.

Besides the four basic rights of consumers that are outlined by the Consumers Bill of Rights and the International Organization of Consumer Union (IOCU)², what follows is a brief explanation of some rights that need to be available to consumers in derivative markets:

1. **Right to Adequate Product Information**
Consumers must be in a position to select the most appropriate products that suit to their needs and purposes. This is possible only when they have adequate factual information about the derivative products available, their contents and the characteristics of transactions. Information of this kind shall be provided and highlighted by the producer, especially products with unique features. To a consumer, it can be very important to know whether to enter cash markets or futures markets, or what is the difference and the real value in terms of hedging between short hedge and long hedge.
2. **Right to Choose**
Consumers shall have a right to be assured that they will have access to a variety of derivative transactions at a competitive level, wherever possible. This right also involves an assurance that the practice of certain transactions is not manipulated and deceptive. At the end, consumers should be fully aware that they would choose risky securities only if the expected return compensated for the risk.
3. **Right to be Heard**
This right shall cover at least two aspects: i. a right to be assured that consumer interests will be given due consideration in the formulation of economic and social policies as well as public goods; and ii. a right that complaints or grievances will be heard and properly redressed and that adequate legal remedies will be available to the aggrieved consumer.
4. **Right to Get Consumer Education**
Consumers shall always have a right to get education on matters that affect their interest and rights. Basic education toward the nature of derivatives should: i. create consumers' basic awareness of how they can best obtain optimum benefit from financial instruments available in the market; ii. educate consumers on how they can best safeguard their own interest in terms of risk and return; and iii. Enable consumers to know what specific interests of the consumer are protected by the laws and what remedies are available.
5. **Right of Redress**
Consumers have a right to see that a cheap, speedy and efficacious mechanism for the resolution of consumer-related conflict is available. Litigation involves long delays due mainly to the use of technical rules of evidence and procedure, and also expenses in terms of court fees and payments for securing legal advice and assistance.

¹ Warmke, Roman and Wyllie Eugene (1997), "Consumer Economic Problems", South Western Publishing Co., Ohio, 32.

² First acknowledgement of consumer protection was outlined by John F. Kennedy in the Consumers Bill of Rights that protects four basic rights, namely: right to safety, right to be informed, right to choose, and right to be heard. Later the International Organization of Consumer Union (IOCU) added: right to get basic necessities, right to get a clean environment, right to get settlements, and right to get consumer education.

The need for a comprehensive statute is needed in order to be truly protective of the interest of both the consumer and the benefit of derivative in the future. Meanwhile, to cover deficiencies and gaps in the existing legal framework, a derivative contract will have to include provisions in the following areas:

- a. provisions to impose primary liability for speculative transactions on both parties with a view to ensuring risk shifting contract to a third party, i.e. insurance company;
- b. provisions to do away with the doctrine of privity of contract and locus standi so that any party injured by a harmful derivative product could have a right to claim compensation;
- c. provisions to regulate derivative transactions in order to minimize chances of abuse of contractual freedom;
- d. provisions to regulate exclusion clauses;
- e. provisions for elaborate implied terms in technical and complex transactions with a view to restricting the use of phrases and expressions which have technical meaning (which an average consumer will not easily understand);
- f. provisions to regulate hedging strategies, risk management, valuation, and investment solutions that are appropriate for a variety of market situations;
- g. provisions to regulate breach of contract by providing remedies as a claim to specific performance or to damages as well as a claim for restitution; and
- h. provisions to regulate misrepresentations (fraudulent and negligent) from a false statement of fact made by one party to the other party which induces the other party to enter into a derivative contract.

A broader question in enforceability of derivative contract is not always based on regulated laws or what to regulate in the future, but how to do so in a way that maximizes transaction's objectives and economic benefits by:

1. preventing monopolies or at least reducing their impact (supporting trade negotiations);
2. internalizing externalities (third party effects: speculators);
3. promoting public goods (greatest good that applicable in heterogeneous society);
4. encouraging knowledge transfer (the nature of hedging risk);
5. dealing with information asymmetries (a strong economic rationale for requiring licenses for financial firms);
6. achieving distributional justice (ensuring consumer rights and setting minimum conditions for derivative transactions that left unregulated);
7. reflecting communities values (improving overall wealth and happiness, and discourage social strife); and
8. supporting individual well-being.

C. Economic Roles of Breaches, Damages and Remedies

Contract shall allocate risks explicitly. When a derivative contract remains silent about a risk, the contract has a gap. The more it has gap, the more likely one of the contracting party breaches the contract. Inadvertent gaps are considerably expected in complex derivative contract as contracting parties do not foresee the possibilities. But it does not mean that remote risk justifies the cost of negotiating and drafting terms of hedging to allocate them. The following approach can be used as guidance in minimizing cost of derivative contracts:

Cost of allocating a risk > cost of allocating a loss X probability of a loss → leave gap
Cost of allocating a risk < cost of allocating a loss X probability of a loss → fill gap ¹

It is also important to determine remedies in a derivative contract that grant the very object or benefit the party would have received had the other party not committed the wrong. At least, remedies to a derivative contract should grant the hedger a benefit that is of equal value to the very object or benefit lost as a result of the other party's wrong².

Generally, the hedger is entitled to recover its expectancy interest under the contract. However, if hedger cannot prove its expectancy with reasonable certainty, that is hedging purpose, the hedger can only recover as damages any expenses incurred in reliance on or in furtherance of performance of the derivative contract³. In terms of compensatory damages, the non-breaching party to a derivative contract can, and probably should, recover the cost to remedy defects or complete performance if that cost is not clearly disproportionate to the loss in value to the non-breaching party. In this case, court should specifically award the cost to remedy defect in performance even though it exceeds the loss in value to the non-breaching party – as long as it acts as the hedger, where the defect in derivative contract frustrates the purpose of the contract.

Another type of damages that need to be included in a derivative contract is special damages. In general, special damages are those that arise from the use of the object of the action rather than the injury or loss of the object itself. In derivative transactions, damages which do not flow necessarily and inherently from the breach

¹ Cooter, Robert & Ullen, Thomas, "Law & Economics", 5th edition, Pearson International, U.S.A., 218.

² Traditionally, traders have consistently characterized backpay and frontpay as equitable remedies. Specific performance may become an equitable remedy available in a breach of derivative contract only if money damages and other forms of legal relief are inadequate.

³ Reliance damages are an alternative to expectancy damages and can be covered only if the hedger cannot establish its expectancy.

are not special damages, but instead are caused by the particular needs of the non-breaching party, that is, particular use of the derivative. In some cases, lost earnings in particular performance, such as late delivery in derivative transactions on commodities, are considered as special damages. An injured party's specific lost earnings will depend on the particular individual's circumstances.

In order to recover lost profits, the hedger as the non-breaching party must take reasonable efforts to avoid lost profits and can only recover those portions of the lost profits which could not be avoided through reasonable efforts. The non-breaching party need not make extraordinary efforts to avoid the loss but need only take reasonable steps to avoid the loss. The reasonableness of the non-breaching party's efforts is determined by the individual circumstances of the non-breaching party. After all, this is what derivative is all about.

Finally, a derivative contract needs to uphold a liquidated damages provision if: (i) the damages resulting from breach would be difficult to determine at the time the parties entered into the contract; and (ii) the stipulated amount bears a reasonable relationship to either the anticipated or actual harm resulting from the breach.

In short, the efficient remedy for breach of enforceable derivative contract is an award of the value expected of the transactions¹. According to Posner, when a breach of contract is proved, further issues become that of the proper remedy that can be arrayed as follows:

1. the promisee's reliance loss (the cost he incurred in reasonable reliance on the promisor's performing the contract);
2. the expectation loss (loss of the anticipated profit of the contract);
3. liquidated damages (damages actually specified in the contract as the money remedy for a breach);
4. consequential damages (the breach's ripple effects on the promisee's business);
5. restitution (to the promise of the promisor's profits from the breach);
6. specific performance (ordering the promisor to perform on penalty being found in contempt of court); and
7. a penalty (as distinct from liquidated damages, which are a form of compensatory damages) specified in the contract, or other punitive damages.

The fact of derivative transactions establish enforceability, and the expected value of a bargain measures damages. The valuation of bargains in derivative contract can be measured by:

1. Both contracting parties profit the benefits; or
2. One of the contracting parties is in the same state when the other party profits; or at least
3. A contracting party who profits from the bargain does not worsen the other party's losses.

V. Conclusion

On the whole, the basic question underlying contract is what sorts of promises should be legally enforceable. It should be obvious that promises to conduct speculative transactions are unenforceable, not only because of unforeseen contingencies cannot be accounted for in the contract, but also because enforceability of derivative contract serves hedging purpose. The misuse of derivatives led to the public's misunderstanding about derivatives which contribute to the public's sense of uneasiness about derivatives. By further academic research, we can hope, to restore the public's concerns over derivatives disasters and the apposite use of derivative.

Courts must refuse to enforce zero-sum transactions from derivative contract that did not serve a true hedging purpose. This will restrain speculative contract as well as preventing market manipulation, fraud, and other market abuses. Any derivative contract or "difference contract" that carries speculative trades cannot be categorized as contract, especially in countries that do not regulate gambling in any forms at any scale such as Indonesia. At last, we can add another intolerable contract to the list of unenforceable contracts.

REFERENCES

Books

- Cooter, Robert and Ulen, Thomas. (2008), "Law & Economics", 5th ed., USA: Pearson Addison Wesley.
- Farnsworth, Ward. (2007), "The Legal Analyst; A Toolkit for Thinking About the Law", USA: The University of Chicago Press.
- Friedman, D. David. (2000), "Laws Order-What Economics Has To Do With Law and Why It Matters", USA: Princeton University Press.
- Polinsky, A. Mitchell. (2011), "An Introduction to Law and Economics", 4th ed., USA: Wolters Kluwer Law & Business.
- Posner, A. Richard. (2007) "Economic Analysis of Law", 7th ed., New York: Wolters Kluwer Law & Business.
- Ross, Stephen et al. (2010), "Corporate Finance", 9th ed., Singapore: McGraw-Hill International.
- Sugianto, Fajar. (2013), "Economic Analysis of Law", Seri I: Pengantar, Jakarta: Prenada Media Group.
- Warmke, Roman and Wyllie, Eugene. (1997), "Consumer Economic Problems", South Western Publishing Co.

¹ Posner, Richard A. (2007), "Economic Analysis of Law", 7th edition, Aspen Publisher, USA, 2007, 118-119.

Whaley, Robert E. (2006), “Derivatives; Markets, Valuation, and Risk Management”, Wiley Finance, New Jersey.

Articles

Bakos, Yanis Bakos et al, “Does Anyone Read the Fine Print? Consumer Attention to Standard-Form Contracts”, *The Journal of Legal Studies* 43 (1), The University of Chicago Press, U.S.A., 2014, 3-30.

Kawaguchi, Daiji et al. “Incidence of Strict Quality Standards: Protection of Consumers or Windfall for Professionals?”, *The Journal of Law & Economics* 57 (1), The University of Chicago Press, U.S.A., 2014, 195-224.

Websites:

<http://www.isda.org/statistics/> accessed on January 2014.

<http://www.chicagobooth.edu/faculty/selectedpapers/sp75.pdf> accessed on July 2015.