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November 8, 2011

Ms. Elizabeth M. Murphy
Secretary
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

**File No. S7-33-11: Use of Derivatives by Investment Companies under
the Investment Company Act of 1940**

Ladies and Gentlemen:

I am writing to respond to several of the requests for comments made in *Use of Derivatives by Investment Companies under the Investment Company Act of 1940*, Investment Company Act Release No. 29776, 76 FR 55237 (Sep. 7, 2011) (the “Concept Release”).¹ As the members of the staff of the Division of Investment Management (the “Division”) are aware, I am an attorney whose practice centers on counseling registered investment companies and their investment advisers. I have struggled for twenty years with, among other matters, the application of the Investment Company Act of 1940 (as amended, the “1940 Act”) to various types of derivative contracts and structured investments. During this time, I have analyzed the structure and terms of a variety of exchange-traded and over-the-counter derivative contracts, mortgage and other asset-backed securities, “structured” notes and other investments commonly referred to as derivatives. I suspect that any guidance from the Commission regarding the use of derivatives by investment companies, no matter how controversial, would be preferable to the current hodge-podge of irreconcilable positions that have emerged since its last interpretive release on the topic: *Securities Trading Practices of Registered Investment Companies*, Investment Company Act Release No. 10666, 44 FR 25128 (Apr. 27, 1979) (“Release 10666”).

I believe that providing such guidance will be a challenge, however, for two reasons. First, this is an area where the 1940 Act shows its age. The theory and practice of using derivatives to build and manage investment portfolios developed after the 1940 Act was enacted. The challenge is analogous to interpreting a law regulating 1940’s era carburetors in today’s world of computerized fuel-injected engines—some basic principles remain the same, but the mechanisms are almost entirely different.

Second, appropriate guidance must walk a difficult line between substantive consistency—treating investments with the same economic terms in the same manner under the 1940 Act—and the “foolish” consistency that, for those who quote Emerson correctly, “is the hobgoblin of little minds.” Sometimes, it is necessary to treat a derivative as though it were an investment in the underlying assets. Other times, it is necessary to treat the derivative contract as an asset in its own right. Still other times, it is not practical to treat similar investments in the same manner. This means that appropriate guidance on derivatives can never be simple or perfectly consistent.

¹ These comments express my personal views, and should not be attributed to any firm with which I am or have been associated or to any of their current or former clients.

Notwithstanding these challenges, I believe that most of the questions posed in the Concept Release are susceptible to logical, although not simple or elegant, solutions. I advocate using a heuristic technique I have employed in my analysis of whether derivative contracts comply with a variety of investment policies and limitations. The technique involves separating a derivative contract into two separate transactions: (1) the purchase of the referenced asset, assets comprising the referenced index or a monetary obligation used to determine the value the investment company will receive under the contract (the “long side” of the contract), and (2) the borrowing and sale of the referenced asset, assets comprising the referenced index or a monetary obligation used to determine the value the investment company must pay under the contract (the “short side” of the contract). The notional amount of the contract determines the initial amount of each transaction, and is adjusted to reflect changes in the market value of the contract. Each side of the contract is then tested for compliance, taking into account the relationship of the transaction to the existing portfolio. Both sides of the contract must satisfy all applicable investment policies and limitations in order to qualify as an eligible investment.

Most of my comments consist of applying this approach to policies involving investment leverage, diversification and concentration required under the 1940 Act. I will limit my comments to matters with which I have some understanding and direct experience. This does not include the various risk management systems referred to in the Concept Release. I hope that other more knowledgeable commenters will address these systems, as they appear to be a more promising approach than Release 10666’s asset segregation requirement. To facilitate the Division’s compilation of comments, I will respond directly to specific requests for comments made in the Concept Release.

I. INVESTMENT LEVERAGE

From the perspective of protecting their shareholders, regulating the amount of leverage used by investment companies is an important and vexing problem. Prior to the recent financial crisis, I believed that the use of leverage by investment companies should be regulated primarily through disclosure and board oversight. The events of 2007-2008 demonstrated, however, that markets can do a poor job of regulating the use of leverage by financial institutions, allowing leverage to increase until there are catastrophic failures. In light of this experience, I am now inclined to support a limit on leverage for investment companies, and to require funds to seek exemptive relief before exceeding this limit.

- A. *The Commission also requests comment on the different treatment afforded conventional bank borrowings under section 18, which generally require 300% asset coverage, and other transactions, such as reverse repurchase agreements, that may be functionally equivalent to borrowings but, under Release 10666, may be covered by segregation of assets equal to 100% of the fund’s obligations. Why, if at all, should other senior securities be treated differently from bank borrowings for purposes of the amount of cover required? Should the Commission revise its position in Release 10666 so that all borrowings and their functional equivalents are subject to the same asset segregation requirements?*

These are the core legal questions regarding the use of derivatives by investment companies to create investment leverage. They are fundamentally questions of consistency: given that Congress lim-

ited the leverage created by bank borrowings through an asset coverage requirement, why should investment companies be allowed to create more leverage through another form of transactions that, from an economic perspective, is the same as a bank borrowing? The question is more acute for open-end investment companies, as section 18(f)(1) makes it “unlawful for any registered open-end company to issue *any* class of senior security” except for bank borrowings.²

I believe that the Concept Release is on the right track in carefully analyzing the purposes of each section of the 1940 Act and shaping policies regarding derivatives to further those purposes to the greatest practical extent. The Concept Release identifies the following “concerns underlying the limitations in section 18...: (i) potential abuse of the purchasers of senior securities; (ii) excessive borrowing and the issuance of excessive amounts of senior securities by funds which increased unduly the speculative character of their junior securities; and (iii) funds operating without adequate assets and reserves.” Concept Release at 55242 [footnotes omitted]. This section of my comments will demonstrate the following principles for regulating derivative contracts in a manner that furthers these purposes.

- Derivative contracts can be recharacterized as borrowings. The short side of any derivative contract is equivalent to borrowing the referenced asset or monetary obligation.
- If permitted without limitation, derivative contracts can pose all of the concerns that section 18 was intended to address with respect to borrowings and the issuance of senior securities by investment companies.
- Some borrowings (and thus the short side of some derivative contracts) are equivalent selling a portfolio asset (or its associated risks), thereby acting as a hedge against changes in the portfolio asset’s value. Such borrowings and derivative contracts do not raise any of the concerns that section 18 was intended to address, and therefore should not be treated as indebtedness for purposes of the section.
- Hedges should include at least following derivative contracts:
 - A contract for delivery by the fund of an underlying asset that is currently held in the fund’s portfolio (*e.g.*, a short sale “against the box”);
 - A contract for delivery by the fund of an underlying asset that has the same risk as other assets held in the fund’s portfolio (*e.g.*, a forward contract for a currency in which some of the portfolio securities are denominated); or
 - A contract for payment of a fixed sum of money, or interest on a fixed sum of money, which sum is covered fully by cash or by high quality obligations that mature or pay interest on or before the date on which the contract payments are due (*e.g.*, “synthetic” securities).

² In addition to be able to lawfully incur indebtedness other than bank borrowings, closed-end investment companies may issue “evidence of indebtedness ... in consideration of any loan, extension, or renewal thereof, made by a bank or other person and privately arranged, and not intended to be publicly distributed” without regard for certain of section 18’s restrictions. Assuming that the Commission concludes that derivative contracts are “senior securities,” over-the-counter derivative contracts may still qualify as such privately placed “evidences of indebtedness.”

- Some hedging strategies require derivative contracts with notional amounts greater than the market value of the assets being hedged. Consequently, an investment company may enter into a notional amount of derivative contracts in excess of the amount of its total assets without necessarily using investment leverage. Quantifying the use of investment leverage requires a determination of the notional amount of derivative contracts required for the hedge.
- An investment company may use a derivative contract for an asset that is different from the portfolio asset being hedged, provided that changes in the values of the two assets are closely correlated and there is an independent justification for using the contract (*e.g.*, contracts for the hedged asset are not traded). The correlation of assets values should probably result from similarities in the character of the assets rather than on an observed historical correlation that may change with market conditions.
- To the extent that the short side of a derivative contract does not qualify as a hedge under the forgoing criteria, the notional amount of the contract should be included as indebtedness for purposes of calculating the asset coverage required under section 18.
- If two or more contracts add discrete risks that would be combined in a permissible investment (*e.g.*, one contract adds currency risk and the other adds interest rate risk to a fund that may invest in foreign bonds), then only the contract with the largest notional amount should be included when calculating the asset coverage required by section 18.
- An investment company should not enter into a derivative contract that would cause its asset coverage to fall below the percentage required by section 18 (or any applicable exemptive rule or order adopted by the Commission). If a change in the notional amount of derivative contracts required by a hedging strategy causes an investment company to fall below the required asset coverage, the investment company should not be required to close out derivative contracts to raise its asset coverage. It may be reasonable, however, to require an investment company to close out derivative contracts in conjunction with the sale of hedged assets.

The following comments explain the basis for these principles.

1. How the 300% Asset Coverage Requirement Furthers the Purposes of Section 18

A hypothetical example will illustrate the effects of the 300% asset coverage requirement on an investment company's use of investment leverage. Consider an open-end investment company with a single asset—a \$2 million certificate of deposit (“CD”) from a bank. The CD has a term of five years and bears interest at a rate of 5% per annum. The fund has no liabilities and incurs no expenses, so it distributes the \$100,000 in interest it receives from the CD each year as dividends. If the yield on five-year CDs were to decrease by 1%, the value of the \$2 million CD would increase by about \$90,000, so the fund's portfolio has an effective duration of approximately 4.5 years.

If the investment company could borrow money from the bank at the three-month London Interbank Offer Rate (“LIBOR”), and LIBOR was currently 3%, the fund could increase its dividend by borrowing money and reinvesting it in another five-year CD paying 5%. The fund might even arrange to borrow money from the bank, purchased another CD and pledged the CD as collateral to secure the loan. The bank could then offset amounts due on its CD against amounts due on the fund’s loan.

Section 18(f) appears to permit this arrangement, because the fund would borrow the money from a bank. To comply with the 300% asset coverage requirement, however, the amount of the loan could not exceed \$1 million. A \$1 million loan would permit the fund to purchase a \$1 million CD, so that its total assets would equal \$3 million, which would be 300% of the loan amount. The arrangement would increase the fund’s income by \$20,000 a year so long as LIBOR remained at 3%. If the yield on five-year CDs decreased by 1%, the value of the CDs would increase by about \$135,000, so the effective duration of the fund’s portfolio would increase to approximately 6.75 years.

Changes in LIBOR also would affect the fund’s total return. Each 1% decrease or increase in LIBOR would add or subtract \$10,000 a year from fund’s interest income, with a corresponding increase or decrease in its dividends. The arrangement would become a losing proposition if LIBOR rose to over 5%. At this point, the fund would have to cut its dividend in order to use interest from its other CD to pay interest on the loan. If LIBOR rose to over 15%, the fund would not have enough income from its CDs to keep current with interest on the loan.

How does the 300% asset coverage requirement further the purposes of section 18 in this example? First, it protects the bank from potential “abuse,” in the sense of the fund using the loan to speculate for its shareholders’ profit at the bank’s expense. The legislative history of section 18 indicates that speculating with other people’s money was an activity that Congress sought to limit. *See, Memorandum of the Division of Investment Management Concerning Mutual Funds and Derivative Instruments*, Fed. Sec. L. Rep. (CCH) ¶ 85,431 (Sep. 26, 1994) (“Senior securities tended to lead to speculative investment policies to the detriment of senior securityholders because the common stockholder/sponsors, who often had a relatively small investment at risk in the fund, looked to capital gains for profit.”). With \$2 at stake for every \$1 lent by the bank, the fund’s shareholders will probably bear any losses resulting from the fund’s investment strategy. This provides ample incentive for the fund’s manager to refrain from investment strategies that are so “speculative” as to threaten repayment of the loan.

The asset coverage requirement also serves the second purpose of limiting the increase in the “speculative character” of the fund’s shares. It is not clear whether Congress intended for “speculative character” to refer to volatility in the fund’s total return or to refer to only the volatility in the fund’s share price. I believe that Congress was concerned with excessive volatility in total returns. As the example shows, borrowings can cause significant fluctuations in a fund’s dividends as well as in its share price. From an investor’s perspective, a loss of income is just as significant as losses due to changes in the share price.

What is not clear is what level of volatility is “undue.” Presumably, any level of volatility that could be attained in compliance with 300% asset coverage is not “undue.” It is tempting to translate the 300% requirement into a 50% limit on increase volatility, insofar as the amount of any loan would be

limited to 50% of the fund's net assets. This is an overly simplistic view, however. First, this assumes that the loan proceeds are invested in exactly the same securities and in the same proportions as the original portfolio. This is not required by section 18, which does not regulate how funds use the proceeds of their bank borrowings. A fund could use bank borrowings to add more volatile securities to the portfolio, which would increase the portfolio's overall volatility by more than 50%.

Second, as this example shows, bank borrowings also increase the volatility of the fund's income, which is a factor in its total return. Before the transaction, changes in LIBOR had no direct impact on the fund's total return; after the transaction, every 1% change in LIBOR would produce approximately a 10% change in the fund's total return. This volatility is in addition to the volatility of the fund's portfolio, making the volatility in total return added by the borrowing more than 50%.

This demonstrates why the Commission cannot derive from the 300% asset coverage requirement an absolute limit on the amount of total return volatility that investment companies may attain through leverage. An asset coverage requirement is a blunt instrument for regulating the potential volatility of an investment company's returns. The extent to which the requirement limits the addition of volatility depends on the nature of the fund's investment strategy and portfolio, the use of the borrowing proceeds and the cost of the borrowing. Section 18 does not create a hard and fast rule for how much a fund can increase the "speculative character" of its shares through leverage.

The asset coverage requirement directly addresses the third purpose of section 18—preventing funds from "operating without adequate assets and reserves"—by requiring the fund to hold three times as much in assets as it needs to repay the loan. This is not much of a concern in the example because the pledged CD will provide all of the money needed to repay the principal amount of the loan, as well as sufficient funds to pay interest so long as LIBOR does not exceed 5%. Even if LIBOR rose substantially beyond this level, the fund has \$100,000 a year in other income and \$2 million in other assets from which to pay interest on the loan.

The fact that 300% seems more than adequate for this example does not necessarily mean that it would be adequate for every type of bank borrowing. The example involves a conservative investment strategy, while other funds could use borrowings to take greater risks. Section 18 does not limit the type of assets that count towards the 300% coverage requirement, so a fund with a highly volatile portfolio can borrow money to buy volatile assets without violating section 18. Nevertheless, a fund would have to employ an aggressive investment strategy before 300% coverage could be considered "inadequate," insofar as any excess borrowing costs and losses on the portfolio would have to amount to twice the original loan amount before the fund could no longer repay the loan in full.

2. Policies Regarding the Use of Derivative Contracts that Would Serve the Purposes of Section 18

The example just analyzed may seem like a bank borrowing, but it is actually an interest rate swap. I mean this literally: when interest rate swaps were originally developed, they were documented as "back-to-back" loans. Companies would enter into an interest rate swap by borrowing money from a bank at one interest rate and simultaneously lending it back to the bank at another interest rate. (The CD

in the example represents the loan back to the bank.) The two loans would have identical payment terms and maturities, and would authorize the bank to offset amounts due from the company against the bank's obligations to the company. Once the setoffs were taken into account, the transactions would result in only a series of net interest payment to or from the bank. The parties did not need to exchange the principal amount of the loans, at either the beginning or end of the transaction.

If investment companies had entered into interest rate swaps thirty-years ago, the swaps would have been structured in this fashion. As the swaps would have involved a loan from a bank, I suspect that many attorneys would have concluded that the swaps were subject to the 300% asset coverage required by section 18. Others might have argued that the loans are legal fictions, however, insofar as (apart from net interest payments) no money actually changed hands between the investment company and the bank, so the loans should be ignored for purposes of section 18.

Not applying the asset coverage requirement to "back-to-back" loans might make sense if they did not raise any of the concerns that Congress intended to address in section 18. For example, "back-to-back" loans would not initially appear to create any risk of speculating with the bank's money because the fund would never actually receive the bank's loan. This view is incomplete insofar as it ignores the receipt of the bank's obligation. Essentially, the bank would deliver a CD in lieu of cash for its loan to the fund. The larger the CD, the more the fund's returns derive from the bank's loan, as opposed to the capital invested by its shareholders.

To illustrate this with an extreme example, suppose the fund with the \$2 million CD borrows \$50 million from the bank and immediately lends it back to the bank by purchasing a \$50 million CD. A 1% decline in CD yields would then increase the value of the fund's assets by more than \$2 million—more than doubling the shareholder's initial investment. When the additional net interest income is added (assuming LIBOR remains at 3%), the fund's total return would exceed 170%.

This enormous return would come at the bank's expense, insofar as, after the decline in yields, it would be paying \$500,000 a year more than the current market rate on the \$50 million CD. This would be in addition to the \$1 million a year paid by the bank as the net difference between the 5% CD rate and LIBOR. Moreover, the bank's returns are asymmetrical: if CD yields rose 1%, the value of the CDs would fall by more than \$2 million and wipe out the shareholders' capital. At this point, the shareholders would have nothing more to lose and could speculate on the future recovery of the CDs' value entirely at the bank's expense. This shows that even "back-to-back" loans, if permitted without any asset coverage limit, can result in a type of investment strategy that Congress considered "abusive" to the bank.

Needless to say, \$50 million in "back-to-back" loans also would increase the volatility of the fund's total returns tremendously. A 1% decrease in yield would increase the fund's net asset value by more than 100%. In addition, each 1% change in LIBOR would increase or decrease the fund's total return by 25%. While I cannot say exactly when the increasingly speculative character of shares violates section 18, surely this sort of extreme volatility would be beyond the pale.

Fifty million dollars in "back-to-back" loans could even call into question the adequacy of the fund's assets and reserves. Every 1% change in LIBOR would produce a \$500,000 change in the net

interest payment due on the loans. This means that, if LIBOR rose to 6%, the fund would owe the bank \$500,000 per year for the remaining term of the loan. If the loan had more than four years remaining until maturity when LIBOR rose to 6%, the net interest payments would exhaust the fund's capital of \$2 million and leave it without any means of meeting its remaining obligations.

One might contend that this example is so extreme as to be absurd. The 25 to 1 debt/equity ratio represented in this arrangement is not unprecedented, however. Several financial institutions and hedge funds operated in 2006 and 2007 with even higher debt/equity ratios. Moreover, the question ignores the fact that even "fictitious" loans have exactly the same impact on the fund's total returns and assets as real loans. Thus, "back-to-back" loans raise all of the concerns that Congress sought to address in section 18 and raise them to the same extent as "real" loans. Allowing swaps in the form of "back-to-back" loans without regard to asset coverage could lead to investment practices that section 18 was intended to prevent.

Swap documentation evolved, and the concept of a "notional amount" replaced "back-to-back" loans. The shift to notional swaps did not change the economics or risks of a swap in *any* respect. An interest rate swap with a notional amount of \$50 million creates the same risks to the counterparty, the funds and the fund's shareholders as a "back-to-back" loan of \$50 million. I therefore cannot find any credible argument for treating a notional value swap differently from a "back-to-back" loan for purposes of section 18. Except as explained in the next subsection, the notional amount of swaps should be treated as creating investment leverage and subject to any asset coverage requirement the Commission imposes on the issuance of senior securities by investment companies.

3. Policies Regarding the Use of Derivative Contracts that Would Not Serve the Purposes of Section 18

Funds do not always use derivatives to create investment leverage. Consider, for example, the inverse of the last transaction, in which a fund would borrow money from a bank for five years at a fixed rate of 5%, and use the loan to purchase a five-year CD paying variable interest at LIBOR. This example would include an explicit bank borrowing and therefore would appear to be subject to the 300% asset coverage requirement. In this circumstance, however, imposition of the asset coverage requirement would not further the purposes of section 18, because the loan acts as a hedge against the CD already held in the fund's portfolio.

The bank's loan in this example would have the same term and interest rate as the \$2 million CD held by the fund. So long as the fund does not borrow more than \$2 million, any payments received from the CD would offset payments due on the loan. Any change in the value of the original CD would be offset by a corresponding change in the value of the loan. In essence, borrowing on these terms has the same economic effect as selling the CD to the bank and investing the proceeds in a LIBOR CD.

Consequently, limiting the amount of this transaction to \$1 million in order to comply with the 300% asset coverage requirement would not serve any of the purposes of section 18. First, the transaction presents no more risk to the bank than an outright sale of the fixed rate CD to the bank—a transaction not regulated by the 1940 Act. Second, the transaction would reduce the volatility in the fund's total

return by reducing the fund's effective duration. The change in the value of the loan will offset any change in the value of the fixed-rated CD due to interest rate fluctuations and thereby reduce the volatility of the fund's share price. While it is true that the fund's dividend will now fluctuate in response to changes in LIBOR, it would do so to the same degree as if the fund had sold its fixed-rate CD and reinvested in a variable rate CD. Moreover, the decrease in the share price volatility as a result in the reduction in the fund's duration would more than offset the increase in dividend volatility, resulting in an overall reduction in the volatility of the fund's total return. Finally, there is no risk of the fund having inadequate resources to repay the loan, as payments on the fixed-rate CD will match each loan payment.

This example demonstrates how it is possible for a bank loan to act as a hedge, rather than create investment leverage. Imposing an asset coverage requirement on this transaction would be counterproductive, insofar as it would prevent a transaction that reduces the fund's volatility. Thus, the consistent application of an asset coverage requirement to this type of loan would be "foolish" in that it would not further any of the purposes of section 18 or provide any benefit to the fund's shareholders. This provides a reasonable case for not treating notional swaps and other derivative contracts (as well as actual borrowings) as senior securities to the extent that they are used *exclusively* to hedge risk in the underlying portfolio.

I emphasized the word "exclusively" because the transaction in this example would result in investment leverage if the amount of the loan, or notional amount of the swap, exceeded \$2 million. Beyond this point, the fixed-rate bank loan would be the equivalent of a short sale of the fixed-rate CD, *i.e.*, borrowing an additional amount of fixed-rate CDs and selling them to the bank. Although short sales involve borrowing securities rather than cash, they have the same economic consequences for the lender, the fund and its shareholders. The Commission treats short sale as analogous to senior securities for purposes of section 18,³ and notional swaps or other derivative contracts that are equivalent to selling the underlying asset short should be treated in the same fashion.

In this example, a 300% asset coverage requirement should limit the amount of the loan to \$3 million, even though the funds assets would nominally increase to \$5 million. The loan would be equivalent to the fund short-selling \$3 million in fixed-rate CDs, \$2 million of which is "against the box," so that only an additional \$1 million needs to be borrowed for the transaction. If we treat the fund as having \$5 million in assets for purposes of the asset coverage requirement, then we should also treat the fund as having borrowed the full \$3 million required for the short sale, which would violate the asset coverage requirement. This result would contradict the previous conclusion that borrowings should not be treated as senior securities to the extent that they hedge portfolio assets, so it is more appropriate to net the \$2 million sold "against the box" from both the assets and senior securities when calculating asset coverage. This netting would reduce the fund's total assets to \$3 million and its senior securities to \$1 million, which produces 300% asset coverage.

³ See, Robertson Stephens Investment Trust, SEC No-Action Letter (pub. avail. Aug. 24, 1995).

4. General Principle for Regulating the Investment Leverage Resulting from the Use of Derivative Contracts

The foregoing analysis demonstrates my approach to applying section 18 to derivative contracts. Any derivative contract can be thought of as a combined purchase and borrowing transaction. This was recognized in Release 10666's analysis of delayed delivery contracts (the equivalent of a future or forward contract) as a purchase of the underlying GNMA security and the borrowing of the purchase price. The preceding examples illustrated the borrowing implicit in interest rate swaps. Selling a future or forward contract also can be treated as a borrowing and short sale of the underlying asset and the purchase of a monetary obligation equal to the contract price. These implicit borrowings constitute the "short side" of these derivative contracts.

I recommend that the Commission treat the notional amount of the short side of any derivative contract as subject to any limitations imposed on the use of investment leverage by investment companies, unless the investment company can demonstrate that the short side provides a hedge against risks presented by other portfolio investments (including pending trades). Short sides may be treated as hedges, however, only to the extent that their notional amount does not exceed the amount needed to hedge the corresponding portfolio risk.

A series of related examples will help to illustrate this approach and limn some of its difficulties. First, consider a fund that holds a €2 million bond that matures in three months. In order to protect its shareholders against currency fluctuations, the fund enters into a currency forward contract to sell €2 million for \$2.75 million on the same day the bond matures.⁴ The short side of the forward is the fund's obligation to pay €2 million, and the long side is an obligation to pay \$2.75 million, at the end of three months. If there is any doubt about characterizing the short side as a borrowing, consider that the forward could have been documented as an exchange of the fund's three-month promissory note for €2 million for a three-month promissory note from the counterparty for \$2.75 million. Use of a bilateral confirmation, rather than promissory notes, does not change the economics or risks of the forward.

The short side is "against the box," as the fund will receive €2 million from the maturing bond when its obligation under the currency forward comes due. This forward is therefore a hedge, and should not be treated as investment leverage or subject to an asset coverage requirement. The fund would treat the combination of the euro denominated bond and currency forward as a synthetic dollar denominated bond,⁵ rather than as a senior security subject to section 18.

⁴ Although this contract locks in an exchange rate for when the bond matures, it will not fully hedge against exchange rate fluctuations during the intervening three months. The market value of the currency forward will change each day based on changes in the *forward* euro/dollar exchange rate; while the dollar value of the bond will be determined each day based on the *spot* euro/dollar exchange rate. The forward and spot exchange rates will change by different amounts each day, so it is not appropriate to assume that every change in the currency contract will exactly offset a change in the dollar value of the bond from changes in the exchange rate. The question of how to deal with the inexact nature of hedges is discussed below.

⁵ Many hedges can also be thought of as synthetic securities. The first hedging example, the swap for which the fund was the fixed rate payor, is essentially a synthetic floating rate CD. The hedging of cash with index futures described below creates a synthetic pool of index securities. So long as a purchase of the security being synthesized would be permitted by the fund's

As a corollary to this treatment, the fund should close out the currency forward to the extent that it sells any portion of the bond, so that the notional amount of the short side of the contract always equals the principal amount of the bond. To the extent that the contract is not closed out, it is no longer part of a hedge and must be treated as investment leverage. Thus, if the fund sells the bond, and does not have any other euro denominated holdings, it would be appropriate to require the fund to include the €2 million short side of the currency contract when calculating its asset coverage. If the fund cannot maintain the required asset coverage, it should close out at least the portion of the contract necessary to raise its asset coverage to the required level.

Now suppose that, rather than a bond, the fund holds shares traded in Europe with a current market value of €2 million. To protect its shareholders against exchange rate fluctuations for the next three months, the fund enters into a 3-month forward contract to sell €2 million for \$2.75 million. Unlike the fund holding the bond, however, the fund in this example has no assurance that it can obtain €2 million for its shares at the time the contract expires. Is the short side of the contract in this case a hedge or is the fund speculating on the value of the euro?

The short side of the currency contract clearly acts as a hedge to the extent that the fund holds euro denominated assets, insofar as changes in the forward will largely (see footnote 4 *supra*) offset changes in the dollar value of the shares due to exchange rate fluctuations. If the euro value of the shares falls below the notional amount of the currency contract, however, the forward will start to add to the volatility of the fund's total returns. In other words, any notional amount in excess of the market value of the shares (in euro) will act as a form of investment leverage, and should logically be treated as such.

The problem with this logical conclusion is that it may create practical problems if fluctuations in the euro value of the shares cause the fund to fall below the asset coverage requirement. Forcing the fund to close out the excess notional amount of the currency contract (as proposed for a sale of the hedged bond) may not be in the best interest of shareholders if the shares rally the next day and the fund has to reestablish the hedge. Interpreting section 18 to require the fund to constantly close out and add to its derivative contracts could make hedging prohibitively expensive, which would not serve the purposes of section 18.

Moreover, section 18 requires compliance with the asset coverage requirements only at the time a fund issues a senior security.⁶ Therefore, not requiring investment companies to close out derivative contracts entered into in compliance with an asset coverage requirement would be consistent with section 18. The inability to enter into any more derivative contracts may encourage funds to close out contracts that no longer serve as hedges, or to leave a sufficient buffer to accommodate market fluctuations without falling below the required asset coverage.

investment strategy and limitations, I cannot see any reason why section 18 should be interpreted to limit this use of the derivative contracts. In this situation, the fund is merely doing indirectly what it would be permitted to do directly.

⁶ Section 18 also requires senior securities issued by closed-end funds to have certain remedies (*e.g.*, restrictions on dividends and the right to elect directors) if asset coverage falls below the required level for extended periods. I do not think it would be realistic to try to extend these remedies to derivative contracts.

Constantly closing and entering into derivative contracts may not be problematic for certain hedging strategies. In this example, the fund might use currency options, rather than forward contracts, to hedge its €2 million exposure through a strategy known as “delta hedging.” Delta hedging is based on the correlation of an option’s value with the value of the underlying asset. As this correlation changes over time, the fund must regularly close out or add to the options in order to maintain the hedge. To the extent that the correlation between the options’ value and the underlying asset value is less than one, the notional amount of the options must exceed the market value of the underlying asset. Thus, a fund using a delta hedging strategy may acquire currency options for more than €2 million without necessarily creating any investment leverage. To the extent that the fund can demonstrate that the notional amount of the currency options is not greater than the notional amount necessary to implement the delta hedge, the options should not be subject to any asset coverage requirement.

5. Use of Derivative Contracts with Different Underlying Assets as a Hedge

One unavoidable consequence of exempting hedges from an asset coverage requirement is defining what constitutes a “hedge.” The delta hedging strategy just discussed introduces the fact that changes in the value of a derivative contract may not fully reflect changes in the value of the underlying asset. A fund also may create a valid hedge using a derivative contract for an underlying asset different from the asset being hedged.

Index funds provide a good example of this type of hedging. To reduce tracking error while maintaining liquidity for redemptions, most index funds will enter into index futures contracts with a notional amount approximating the funds’ “cash” position. “Cash” may include demand deposits, shares of money market funds and short-term Treasury bills. Although the purpose of the index futures is to increase the returns and risk of the portfolio, the futures also hedge these non-index holdings. The long side of the futures contract adds the returns and risks to the portfolio, but it is not a borrowing subject to asset coverage because it involves the purchase of the underlying index securities. The short side of the contract is the obligation to pay the purchase price on the expiration date of the contract. If the fund has other investments that mature on the same date, then the purchase price obligation will hedge these other investments. The low volatility of the hedged investments and correspondingly small effect of the hedge on the fund’s total returns does not change the fact that the short side of the futures acts as a hedge.

The problem is that an index fund does not normally invest its cash in obligations that mature on the date its index futures expire. The maturity of Treasury bills does not always correspond to the expiration date of index futures, and other cash investments typically have very short terms. Technically, an index fund is leveraging if it acquires futures with terms longer than the cash being hedged, but this can turn into a “foolish” consistency if strictly applied. So long as the fund is acquiring contracts with the shortest terms offered on their exchange, the effects of the leverage should be very minor and there is nothing the manager can do to reduce it. This sort of unavoidable minor increase in the volatility of the fund’s total returns should not prevent index futures from being treated as hedges and excluded from any asset coverage requirement.

On the other hand, if the fund invests its cash in 30-year Treasury bonds, then the short side of the futures contract should not be treated as a hedge. The volatility of 30-year bonds is much greater

than the implicit volatility of the short side of the futures contracts, so the fund's total returns will resemble a stock and bond fund that borrowed money to purchase a portion of its stock portfolio. The hard question is where to draw the line—how much can the expiration of the futures contracts differ from the maturity of the hedged positions and still be treated as a hedge.

The question becomes even more difficult in the context of using derivative contracts to manage a bond fund's duration. Suppose a fund holds bonds with a wide range of maturities and an average effective duration of 5 years. The manager expects a short-term increase in interest rates and wants to hedge against this risk by shortening the fund's duration. To avoid the expense and uncertainty of temporarily repositioning the portfolio, the manager decides to reduce the duration by writing Treasury futures. Contracts for two, three, five and ten year Treasury notes are traded on the CME. Should the Commission require the manager to match the maturity of the notes underlying a futures contract to the maturity of some of the fund's holdings in order to treat the futures as a hedge?⁷

I cannot find an easy answer to this question. On the one hand, considerations of best execution may come into play. It would be more difficult, more time consuming and expensive to require the fund to write a basket of futures with a range of maturities roughly corresponding to the bond portfolio. In addition, the market for some futures may be deeper and more efficient than for others, thus providing an opportunity for better execution of the hedge.

On the other hand, each futures contract represents a bet on a specific area of the Treasury yield curve. If the manager anticipates that short-term interest rates will rise more than long-term rates, then it might use two-year Treasury futures to reduce the fund's duration. If rates rise as expected, the value of the futures may increase more than the value of rest of the portfolio decreases, adding to the fund's total return rather than merely offsetting the decrease. If long-term rates rise while short-term rates remain relatively unchanged, the change in the value of two-year Treasury futures will do little to offset the decline in the value of the rest of the portfolio. In this scenario, the futures contracts look more like a leveraged bet on changes in the shape of the yield curve and less like a hedge.

The demise of short-term world income funds in the early 1990's provides a historical example of the risks of trying to hedge using derivative contracts with different underlying assets than the fund holds. Several of these funds used "cross hedging" strategies, in which they would try to hedge the exchange rate risk of securities denominated in one currency (Deutsche marks, for example) by entering into forward contracts to sell another currency (such as Swiss francs). The cross hedge was based on a historical correlation in the value of the two currencies against the U.S. dollar and a comparative advantage of the forward exchange rate for one currency over the other. So long as changes in the dollar exchange rates for the two currencies remained highly correlated, the strategy would allow the fund to

⁷ Although Treasury futures are nominally for notes with specific maturities, the CME contract permits the delivery of Treasury notes within a range of maturities and includes a formula for adjusting the contract price to reflect the securities delivered. It would therefore be appropriate to treat 5-year Treasury note futures as corresponding to a broad range of maturities that the fund may hold.

hedge its exchange rate risk more cheaply than hedging with futures denominated in the same currency as its portfolio securities.

The risk was that the currencies might not remain highly correlated. In fact, if the exchange rate for Deutsche marks falls and the exchange rate for Swiss francs rose, the currency contracts would not hedge the exchange rate risk at all and would add to the fund's losses. Currency crises during the early 1990's caused exchange rates for various European currencies to become uncorrelated, which caused the cross hedging strategies of some short-term world income funds to fail, resulting in significant losses in what was expected to be a relatively safe investment.⁸ The Division should review fluctuations in the exchange rates and LIBOR for the pound sterling, Swedish krona and Spanish peseta during this period to appreciate the potential volatility of currency contracts and interest rate swaps. Although normally staid investments, it is possible to incur substantial losses on these derivative contracts during periods of market turmoil.

6. Multiple Hedges of the Same Portfolio Asset

My examples involve hedging only one element of the risks presented by a hedged security. The interest rate swap in the first hedging example hedged only the interest rate duration of the CD; the currency forward in the next set of examples hedged only the exchange rate risk of the euro denominated securities. Of course, it is possible to hedge both these elements of risk with respect to the same security. For example, if the fund held a euro denominated fixed rate bond, it could use a combination of interest rate and currency swaps or forwards to hedge both the interest and exchange rate risk of the bond. The notional amount of this combination of derivative contracts would be twice the principal amount of the underlying bond, but the contracts would not create any investment leverage in the fund.⁹

This is why the Commission cannot determine whether a fund's use of derivative contracts involves investment leverage simply by adding up the notional amount of the derivative contracts and comparing it to the fund's total assets. One important use of hedges is to isolate specific risks of a portfolio security. The Commission should not interpret section 18 so as to prohibit funds from using derivative contracts in this manner.

This logic also may apply to the use of derivatives for investment leverage. If a fund is permitted to borrow money to invest in a security, the transaction will add to the portfolio all of the risks associated with the security. The fund could add this same combination of risks through a combination of uncovered derivative contracts. Although the notional amount of the combined contracts would exceed the amount that the fund might borrow, the combine risks would be the same.

⁸ See, "Currency Crisis in Income Funds," NY Times (Oct. 31, 1992).

⁹ A "straddle" is another example of a strategy involving the use of multiple derivative contracts to hedge the same asset. In a straddle, a fund with 100 shares of Company A would buy a put option to sell the shares with a strike price below their current market value, and sell a call option on the shares with a strike price above their current market value. The premium received from the call option would offset the premium paid for the put option, and the strike prices of the options would limit the fund's potential return from the shares. The notional amount of the options would be twice the amount of the hedged shares, without resulting in investment leverage.

For example, suppose a fund could borrow \$1,375,000 in compliance with section 18, exchange it for euros and invest in a €1 million five-year, fixed-rate corporate bond. The fund could synthesize much the same transaction by (a) entering into a five-year interest rate swap with a notional amount of \$1,375,000 in which the fund received a fixed rate and paid LIBOR and (b) entering into a series of currency forwards in which the fund exchanges the U.S. dollar amount of each scheduled fixed rate payment from the interest rate swap for euros at a forward exchange rate. This synthetic transaction would add about as much interest rate and exchange rate risk to the fund as investing in the €1 million corporate bond, but with less credit and liquidity risk. Although the aggregate notional amount of the contracts involved in the transaction would exceed \$1,375,000, the combined contracts add less risk to the portfolio than the direct investment of the proceeds of a \$1,375,000 loan. This is because each contract involves discrete risks that are naturally combined in the direct investment. In this circumstance, it is appropriate to treat only the contract with the largest notional amount (the interest rate swap) as indebtedness for purposes of calculating the fund's asset coverage.

This and the preceding analysis should demonstrate why it is necessary to determine the effects of derivative contracts on a fund's risks and returns in order to properly regulate the fund's use of the contracts under section 18. There is no simple approach that will assure that the use of derivative contracts to create investment leverage is consistent with the purposes of section 18. The principles listed at the beginning of this section, however, combined with the proper characterization and analysis of the short side of each contract should produce reasonable guidelines for the use of derivative contracts by investment companies to either hedge or leverage portfolio risks.

- B. Do derivatives that create economic leverage, but that do not impose future payment obligations on funds, such as purchased options or commodity-linked notes, raise the same or similar concerns as derivatives that create indebtedness leverage? Do such derivatives present any other material concerns to funds or their investors, or raise other concerns under the Investment Company Act? If so, how should the Commission address them?*

My previous analysis was strictly limited to derivative *contracts*. There are other instruments that, by design or incidentally, create investment leverage and may thereby entail some of the concerns addressed by section 18. The application of section 18 to these instruments is problematic, however, because the investment company is not the issuer of the instrument. Section 18 only regulates borrowing and the issuance of senior securities by investment companies, not by the companies in which they invest. This limits the Commission's power to regulate the use of these leveraged instruments by investment companies.

Before addressing the application of section 18 to derivative securities, I would like to dispense with the suggestion that derivative contracts that do not obligate a fund to make future payments require different treatment under section 18. For example, one might contend that a purchased option does not raise the concerns addressed by section 18 because the most an investment company can lose is the option premium. This is an unduly static view of the investment, however. A fund's net assets include the current value of its options, which is thereby included in the price of its shares. If the fund's options

appreciate, its shareholders stand to lose the appreciation as well as the premium. Hence, from the shareholders' perspective, the potential loss from purchased options may be multiples of their premiums.

Options also exemplify the type of "abusive" investment strategy that Congress sought to regulate in section 18. Depending on its strike price and term, the premium of an option may be quite small compared to its notional amount. Thus, with a small equity investment, a fund may use options to speculate on a much larger amount of securities at the expense of the option writer. A fund that uses options extensively also may display the degree of "undue" volatility that is a concern of section 18.

Finally, the lack of an obligation to pay for or deliver the underlying assets is, as a practical matter, unimportant. If the option is in the money at the time it expires, the fund's manager has a fiduciary obligation to realize the intrinsic value of the option. The fund may do this by closing out the option (including buying an offsetting option) without the need to make any payments or deliveries, but this is true of most derivative contracts. It remains the case that, to exercise the option, the fund must either pay the full strike price (for a call) or deliver the notional amount of the underlying asset (for a put). Upon its exercise, an option is no different from a future or forward contract—if the fund does not have adequate resources to perform, it will lose the value of the option. Thus, purchased options entail future payments or deliveries when they are exercised, and it would be unreasonable to suppose that an investment company will not exercise the option if it is in the money.

The same cannot be said of derivative securities, however, which never require the fund to pay anything beyond the initial purchase price. Derivative securities also pose difficult questions regarding the consistent application of section 18, because the investment company does not issue the securities. Section 18 does not prevent an investment company from acquiring subordinated securities or equity from a company that uses leverage, even though this may increase the speculative character of the fund's investment strategy and the volatility of the fund's total returns to the same extent as direct borrowings by the fund. Section 18 only regulates investment companies, not the companies in which they invest.

When analyzing the treatment of derivative securities under section 18, it is necessary to distinguish between three, or possibly four, types of derivative securities. The first type, asset-backed securities ("ABS"), are similar to subordinated or equity securities issued by a levered operating company. The special purpose entities ("SPEs") used for large scale ABS programs are formed and controlled independently of their investors. SPEs issue senior, subordinated and residual tranches¹⁰ for their own business purposes, namely the acquisition of the underlying pool of assets. SPEs differ from operating companies, however, in that SPEs are formed primarily for the purpose of restructuring the credit risk of the asset pool, and do not have any independent business operations.

¹⁰ Whereas some argument might be made for applying section 18 to credit tranching ABS (*i.e.*, ABS structured to allocate credit delinquencies and defaults to junior tranches ahead of senior tranches), this argument could not be extended to prepayment tranching mortgage-backed securities (*i.e.*, ABS structured to allocate loan prepayments to certain tranches ahead of others). Prepayment risks were not a concern at the time section 18 was enacted, so even the most liberal interpretation of the section cannot encompass these securities. This is an example of how the 1940 Act shows its age when dealing with derivative securities.

The second type are ABS issued by a “bespoke” SPE, which is an SPE formed at the request of an investor. An example would be a tender option bond trust formed to issue residual interests to a fund or group of commonly managed funds. The trust would hold a fixed rate bond and issue to other investors tender option bonds secured by a demand feature provided by a financial institution. The tender option bonds would pay interest at a variable rate (normally below the yield on the underlying bond), the residual interest would receive the balance of the interest paid on the underlying bond after expenses (including the cost of the demand feature), and the principal payments would be divided pro rata between each tranche. If the financial institution acquires a tender option bond due to the exercise of the demand feature, it will require the trust to reimburse it by selling a corresponding amount of the underlying bond. The financial institution’s claim to proceeds from the sale of the underlying bond will be senior to the residual interest holders’, so the financial institution’s right to reimbursement represents a senior security issued by the trust. The trust typically meets the requirements of section 3(c)(7) of the 1940 Act, and is therefore not treated as an investment company subject to section 18.

“Structured” notes are the third type of derivative security. Structured notes embed the terms of a derivative contract into the payment terms of the note, rather than allocating cash flows from an underlying asset pool like ABS. The CD/swap example will help illustrate how a structured note operates. In the example, a fund held a \$2 million CD paying interest at 5% and borrowed \$1 million at LIBOR to invest in more 5% CDs. A \$2 million structured note would produce the same returns by (1) increasing the fixed rate paid on the note and (2) subtracting LIBOR from the fixed interest rate. In other words, if the fund purchased a \$2 million note from the bank that paid interest at a rate of $7.5\% - (\text{LIBOR} \div 2)$, the structured note would produce the same total return as a combined investment in (1) a \$2 million note paying interest at 5% and (2) an interest rate swap in which the fund received 5% and paid LIBOR on \$1 million notional amount. This type of structured note is known as an “inverse floater,” which is economically equivalent to the residual interest in a tender option bond trust.

In fact, all three forms of derivatives can be used to create inverse floaters and other forms of securities with embedded derivatives or their economic equivalents. Yet, their treatment under section 18 must vary because of the antiquated provisions of the 1940 Act. As noted, subordinated and residual ABS tranches are practically the same as subordinated and equity securities issued by a leveraged operating company. The principle of consistency argues that we should treat this type of ABS in the same manner, and not as a senior security subject to section 18. I cannot see how the Commission would have any basis under the 1940 Act for attributing an SPE’s borrowings or senior securities to investment companies that hold its subordinated or residual tranches.

In contrast, section 48(a) of the 1940 Act may provide a basis for attributing the issuance of senior securities by a “bespoke” SPE to an investment company. Section 48(a) makes it “unlawful for any person, directly or indirectly, to cause to be done any act or thing through or by means of any other person which it would be unlawful for such person to do under the provisions of this title or any rule, regulation, or order thereunder.” In this circumstance, the bespoke SPE is the “other person” who would issue the senior securities that it would be “unlawful” for the investment company to issue. This may provide a basis for attributing to the investment company a pro rata share of any tranches senior to the ABS held by the investment company.

Structured notes can probably be subjected to section 18 without recourse to section 48(a). A minus sign in the payment terms of a structured note is the same as an obligation to pay; the minus sign should be interpreted as “and the holder will pay the issuer.” Whatever appears after the minus sign in a structured note represents the short side of an embedded derivative contract. In other words, a structured note should be treated as a bilateral obligation, with the short side issued by the nominal holders of the structured note and the long side issued by the nominal issuer. From this perspective, a structured note can represent a senior security issued by the investment company that holds it.

This is not to say that all structured notes create investment leverage or should be subject to an asset coverage requirement. Some structured notes are synthetic securities that should be regarded as “hedged” for purpose of section 18. For example, convertible bonds, perhaps the oldest form of structured note insofar as they embed a call option for the shares into which they may be converted, are very similar to a purchased call option covered by segregated assets equal to the strike price. I have previously shown that this can be regarded as a type of synthetic security that should not be limited by section 18. In the case of a convertible bond, the principal amount of the bond fully covers the strike price of the embedded call. Thus, although a standard convertible bond is a type of structured note, it does not create investment leverage and should not be limited under section 18.

I can understand a reluctance to base the interpretation of section 18 on an esoteric interpretation of a minus sign. If the Commission eschews this line of analysis, then I think it will have to concede that the 1940 Act does not regulate the use of structured notes by investment companies, unless the structured notes are “bespoke.” As with a bespoke SPE, a bespoke structured note is issued at the direct request of an investment company and, as with a bespoke SPE, the issuer of a bespoke structured note could be regarded as an “other person” issuing senior securities (the short side of the embedded derivative) that the investment company would not be permitted to issue under section 18. Section 48(a) could thus buttress an argument for restricting bespoke structured notes under section 18.

Finally, all types of derivative securities are similar in one respect—the investment company cannot lose more than the principal amount of the note plus interest. Should this aspect of derivative securities exempt them from section 18? I have two responses to this question. First, it is possible for a fund to borrow or issue senior securities on a non-recourse basis, *i.e.*, the lender’s sole recourse for repayment is a fixed amount of assets delivered by the fund as collateral for the loan. The principal amount of a derivative security can be thought of as the collateral for a non-recourse loan embedded in the security. As section 18 limits any indebtedness regardless the lender’s recourse, the effective limitation of recourse for the derivative contract embedded in a derivative security should not affect its treatment under section 18.

Second, any argument for permitting unlimited use of derivative securities because the amount at risk is limited involves a fallacy of composition. While it is true that losses that a fund might incur on an individual derivative security are limited, unless there is a limit on the use of derivative securities for investment leverage, nothing would stop the fund from investing all of its assets in derivative securities. The unlimited use of derivative securities could thereby place all of the fund’s assets at risk, which would be tantamount to borrowing on an unlimited recourse basis.

- C. *What is the optimal amount of assets that should be segregated for purposes of complying with the leverage limitations of section 18? In general, should a fund segregate assets in an amount equal to the notional amount of a derivative contract?*

The preceding analysis should answer the second question, insofar as in the course of a detailed discussion of the treatment of derivatives under section 18, I have referred exclusively to the notional amount of the contracts, without once mentioning their market value. If the short side of a derivative contract represents a borrowing or senior security, then the notional amount of the contract corresponds to the amount borrowed. Although there are hedging strategies where the notional amount of the hedging contracts exceed the value of the hedged asset, and investment leverage strategies where the notional amount of contracts exceed their implicit indebtedness, it remains true that some notional amount always measures of the extent to which a derivative contract acts as either a hedge or as investment leverage.

In contrast to derivative contracts, the appropriate measure of investment leverage created by a derivative security depends on the security's type. The leverage of a bespoke ABS is determined by looking through to the capital structure of the issuing SPE, and treating investors as having issued pro rata shares of the SPE's senior securities. Consider, for example, a bespoke SPE that issues four tranches of ABS: \$70 million of the most senior tranche, \$15 of a senior subordinated tranche, \$10 million of a junior subordinated tranche and a \$5 million residual. An investment company that acquires \$2 million of the junior subordinated tranche (20% of the tranche), might be treated under section 48(a) as having issued a pro rata share of the senior and senior subordinated tranches, or a total of \$17 million in senior securities (20% of the senior tranche, which is \$14 million, and 20% of the senior subordinated tranche, which is \$3 million).

This approach will not work for structured notes because they create leverage through embedded derivative contracts rather than tranching securities. The leverage of a structured note should equal the product of (x) the principal amount of the note and (y) any multiplier used in the payment formula of the note. In fact, any multiplier used to determine the amount payable under a derivative contract or derivative security should be applied to the notional or principal amount to determine the derivative's implicit leverage. Simple algebra demonstrates that the cash flows from an interest rate swap paying 5% and receiving LIBOR with a notional amount of \$2 million are identical to an interest rate swap paying 10% and receiving 2 x LIBOR with a notional amount of \$1 million. The equivalent borrowing in both cases is \$2 million.

Although I believe that notional amounts (adjusted for changes in the market value of the derivative, as discussed in the next section on diversification and concentration) should be used to determine compliance with the asset coverage requirements of section 18, the Commission's current interpretive positions do not follow this principle. The first departure occurred in Release 10666. Although the Commission correctly analogized the derivative contracts discussed in Release 10666 to senior securities and correctly analyzed the purposes of section 18, the asset segregation requirement established in the release had the effect of relaxing the required asset coverage for some funds. This was due to the broad class of assets eligible for segregation under Release 10666, including "cash, U.S. government securities, or other appropriate high-grade indebtedness ..." Concept Release at 55243. If a

fund's portfolio consisted entirely of these securities, then the fund could theoretically enter into derivative contracts in a notional amount equal to the current market value of the portfolio, resulting in only 200% asset coverage, rather than the 300% required by section 18.

The lower 200% asset coverage requirement was theoretical because Release 10666 also requires a fund to mark the segregated assets to market value daily, and to segregate additional assets if their market value falls. This means that funds must close out derivative contracts if they run out of eligible assets to segregate, so, as a practical matter, a fund will maintain a buffer of unsegregated assets available to cover such fluctuations. The buffer would prevent the fund from operating at 200% asset coverage limit, although it might easily operate with an asset coverage below 300%.

I was never certain if this was the Commission's intent in promulgating Release 10666. The asset segregation requirement results in a synthetic security, with the segregated cash or instruments covering the short side of the derivative contracts so that the combined performance approximates an outright purchase of the underlying assets. Release 10666 did not limit the maturity of the segregated instruments, however, so it would not prevent a fund from covering the contract price of a stock index future with 30-year Treasury bonds—a transaction that I previously concluded should be subject to section 18's asset coverage requirement.

Whatever the Commission's intent in Release 10666, the Division further relaxed the asset coverage requirement in Merrill Lynch Asset Management, L.P., SEC No-Action Letter (pub. avail. July 2, 1996). By making liquidity the only criteria for segregated securities, regardless of their potential volatility, the Division greatly expanded the type of funds that could operate beyond the 300% asset coverage limit. One could argue that the Division's position is consistent with section 18 insofar as the section requires the same asset coverage regardless of the level of risk being taken through investment leverage. If section 18 does not limit the type of security a fund may purchase with the proceeds of borrowings or senior securities, why should Release 10666 be interpreted to impose such a limitation?

The Division then did away with the asset coverage requirement entirely by taking the informal position that funds must only segregate the out-of-the-money value of cash settled swap contracts. This position imposes no effective control over the amount of investment leverage created by these swaps, and leaves it to the market to limit the amount of leverage a fund may use. The out-of-the-money value of a swap only represents how much the fund *already* has lost, not the *potential* loss that might be incurred during the term of the swap. The potential loss represents the risk of investment leverage, but the Division's position does not require the fund to maintain any assets to cover this risk. The only practical limit is the fund's need to maintain a buffer of unsegregated assets to cover fluctuations in the swap's out-of-the-money value.

The Commission ratified the Division's positions when it granted exemptive orders permitting the offering of exchange-traded funds designed to provide up to 300% of the daily return of their target index. *E.g., In the matter of Proshares Trust and Proshare Advisors LLC*, Investment Company Act Release No. 28724 (May 12, 2009). These exemptive orders have the effect of reducing the asset coverage requirement from 300% to 150%. (300% returns require a fund to borrow \$2 for every \$1 of shareholder equity, so the ratio of total assets (\$3) to borrowings (\$2) is 150%). Exchange-traded funds

can only attain this level of leverage by using cash settled derivative contracts and not segregating the full notional amount of the contracts. Thus, the Commission has determined that funds subject to these orders need not comply with the segregation requirement of Release 10666 and may use twice the amount of investment leverage permitted by section 18.

Although I confess to skepticism regarding whether funds designed for leveraged day trading serve the public's interest, I cannot find any rationale for asserting that 150% asset coverage is more than the "optimal" amount of investment leverage. Nevertheless, I would encourage the Commission to use its exemptive order and rulemaking process to regulate an investment company's ability to operate with less than 300% asset coverage, rather than leaving this to the negotiation of disclosures or no-action letters by the Division. I also would suggest consideration of other federal limitations on investment leverage (such as margin requirements), how they might interact with the use of investment leverage by investment companies and the wisdom of permitting leverage in excess of these limitations.

- D. Is owning, or having the right to obtain, the cash or other assets that a fund obligates itself to deliver in connection with senior securities an adequate substitute for segregation of liquid assets? To what extent do funds rely on this cover approach rather than asset segregation? Are cover methods that do not involve asset segregation as effective as asset segregation in terms of limiting a fund's ability to engage in leverage, limiting a fund's risk of loss, and making sure that a fund has set aside sufficient assets to cover its obligations under derivatives and other senior securities?*

Given my protracted analysis of how funds can use derivatives as hedges and for investment leverage, I do not think that the Commission can achieve the purposes of section 18 through some variant of an asset segregation requirement. As my comments attempt to illustrate, the only way to determine whether the use of a derivative is consistent with the purposes of section 18 is (1) to fully understand the nature and expect performance of the derivative and (2) to determine how the performance of the derivative will interact (*e.g.*, as a hedge or as investment leverage) with the performance and risks of other portfolio securities (including other derivatives). Asset segregation is too rudimentary a tool to accomplish this.

I therefore recommend that the Commission develop a different approach to controlling the use of derivatives for investment leverage. I would propose two alternative approaches. The first approach would rely on the portfolio manager to account for how each derivative is used in the portfolio. The notional amount of the short side of any derivative would be presumed to be equivalent to a borrowing or senior security. If the fund does not use derivatives extensively, the portfolio manager could accept this presumption and maintain asset coverage equal to 300% of the aggregate notional amount of the derivatives plus any actual indebtedness. If, on the other hand, the notional amounts of derivatives required for the fund's investment strategy exceed this limit, then the portfolio manager could rebut the presumption by demonstrating that some or all of the notional amounts represent hedges or duplicate the notional amounts of other derivatives presenting discrete risks. The notional amounts used to calculate asset coverage would exclude the notional amount of any hedges and the duplicated notional amounts of other derivatives. Absent an exemptive rule or order, however, the fund would have to maintain 300%

asset coverage for the adjusted notional amount of portfolio derivatives, together with any other borrowings or senior securities subject to section 18.

To illustrate this approach with reference to some of the previous examples, the notional amount of currency contracts needed to hedge foreign denominated portfolio securities could be excluded when calculating the fund's asset coverage, but any excess notional amount would be included in the calculation. Asset coverage would also exclude interest rate swaps and Treasury futures contracts that reduce the duration of the portfolio, even if the hedge relates to the foreign denominated bonds also hedged by the currency contracts. An unhedged position in a synthetic euro bond, created by combining a \$1,375,000 interest rate swap and a series of euro forwards, would be subject to the asset coverage requirement, but the notional amount of the currency forwards would be treated as duplicative, so only the notional amount of the swap would be included as indebtedness when calculating the fund's asset coverage.

This approach may be easier said than done. Rebutting the presumption of investment leverage, and monitoring changes in asset coverage due to fluctuations in the values of portfolio securities and derivatives, will be very burdensome. The need to explain to compliance, risk management and the fund's directors what, from the portfolio manager's perspective, should be self-evidently appropriate uses of derivatives in a fund's portfolio may be frustrating. Other investments do not require this degree of oversight, so managers might fairly ask why derivatives should be treated differently. Some managers may not be satisfied with the answer—the potential to use derivatives for investment leverage—because the 1940 Act does not limit their ability to use subordinated and equity securities to produce leveraged returns for their funds.

The disparity in expertise between portfolio managers and those who monitor their compliance with investment limitations poses another potential problem for this approach. This problem is similar to the fair valuation of complex securities—unless those who monitor and approve a fair valuation have the same understanding as the portfolio manager of how a security trades in the market, they cannot gainsay the portfolio manager's fair valuation. Generally, people who are competent to manage portfolios or analyze securities are employed as portfolio managers and investment analysts, rather than as compliance or risk officers or independent valuation committee members. The personnel commonly employed in these other positions rarely have the background to form an independent view of a portfolio manager's recommendation, whether it is regarding a security's fair value or treatment of a derivative as a hedge. Thus, the ability of most advisers, to say nothing of directors, to oversee a portfolio manager's use of derivatives may be quite limited.

My second approach would rely on the systems for measuring the potential risk of derivatives referred to in the Concept Release. This approach would use one of these systems to establish a total return volatility baseline. To create the baselines, the system would assume that a fund borrowed up to the 300% asset coverage limit, and invested the amounts borrowed in permitted investments that would maximize the potential volatility of the fund's total returns. In other words, the system would assume that the fund had done directly all that it was permitted to do in compliance with section 18 and the fund's investment strategy and limitations.

The system would then determine the potential volatility the total returns of the fund's actual portfolio after giving effect to any proposed acquisition of derivatives. The fund would be permitted to acquire the derivatives if the resulting volatility in total returns *never* exceeds the baseline. I emphasize "never" because it is important that the use of derivatives not create greater risks than an actual borrowing under any market conditions. As we learned in the recent financial crisis, systems that monitor average risks may prove to be ineffective controls. Monitoring average risks allows a manager to take large but highly improbable risks (so-called "tail risks") and offset them by reducing more probable risks by small amounts. When this approach to risk management becomes prevalent it increases the probability of tail risks beyond those assumed by the model, which results in a break down of risk controls.

Thus, I would recommend that the projected risks of any derivatives remain within the risks of direct borrowings under all market conditions. The problem with this recommendation is that I am not a quant, and therefore cannot tell if risk systems can be used in this fashion. I can only hope that those who are experts in risk models can assist the Commission in assessing the feasibility of this approach and, if it is feasible, crafting a rule to implement the approach.

II. VALUATION OF DERIVATIVES FOR PURPOSES OF DIVERSIFICATION AND CONCENTRATION REQUIREMENTS

Questions regarding diversification, concentration and names can be lumped together because they share a common objective: controlling the extent to which an investment company's performance depends on an issuer, industry or market sector. Policies requiring diversification or prohibiting concentration limit the amount of a fund's investment in an issuer or industry, thereby limiting the impact of the issuer or industry on the fund's total returns. Policies requiring concentration are the mirror images; they force the fund to invest a substantial percentage of its portfolio in an industry, thereby making the industry's results a significant driver of the fund's performance. Policies adopted in compliance with rule 35d-1 (the "Names Rule") are required concentration policies designed to assure that the fund's total returns derive primarily from the performance of the industry or market sector referred to in the fund's name.

These questions can also be lumped together because they can be addressed by a common approach. Whereas the short sides of derivative contracts proved the key to regulating the use of contracts for hedging and investment leverage, both sides of the contracts must be taken into account when regulating the use of the contracts in compliance with diversification and concentration policies. When it comes to quantitative investment policies, the long side giveth and the short side taketh away.

The first hedging example exemplified this approach. In this example, a fund converted a \$2 million fixed rate CD into an adjustable LIBOR CD with an interest rate swap. The short side of this swap was a \$2 million fixed rate obligation that completely offset the performance of the CD held in the fund's portfolio. The long side was a \$2 million LIBOR obligation. If the fund had an investment policy regulating its average duration or maturity, the correct method of determining compliance with the policy would be to treat the fund as though it had sold the fixed rate CD and purchased the adjustable rate CD. In other words, the fund should add the duration of the obligation underlying the long side and subtract the duration of the obligation underlying the short side.

Diversification and concentration policies are also quantitative limits, and therefore can be addressed with the same approach. Suppose that an index fund has a policy of investing at least 80% of its assets in the securities comprised by its index, and that the fund maintains 5% of its assets in Treasury bills that the fund uses to raise cash to meet redemptions. If the index does not include Treasury bills, then this holding will not count towards the 80% investment policy.

The fund can enter into a derivative contract that effectively converts these Treasury bills into index securities. By entering into index futures with a purchase price equal to the principal amount of the Treasury bills, the fund will increase the extent to which the fund's total return depends on the performance of the index, as required by the investment policy. Moreover, as explained above, the short side of the contract (*i.e.*, the obligation to pay the purchase price) will hedge the performance of the Treasury bills, thus reducing (if not negating) their contribution to the fund's total return. The futures will have much the same effect as selling the Treasury bills and reinvesting the proceeds in index securities, except that settlement of the trade will be delayed until the expiration of the futures contract. The delay in settlement should not prevent the fund from accounting for the pending trade when determining compliance with the 80% investment policy.

The short side of a contract also could prevent a fund from complying with this required concentration policy. Suppose the fund in the example has all of its assets invested in index securities, but writes an index future for 21% of its assets. This would have the effect of turning index securities into short-term fixed obligations. The short side of this future would hedge 21% of the portfolio, thereby negating their contribution to the fund's total returns, while the long side (an obligation for the purchase price) would become an important component of the fund's total return. Writing these futures would clearly cause the fund to depart from its 80% investment policy after taking the effects of both sides of the contracts into account.

The same approach works for policies that limit investments in an issuer, industry or market sector. Suppose a fund has an investment policy that limits the percentage of foreign denominated securities as a means to control currency risk.¹¹ If the fund holds euro denominated securities and enters into a forward contract to sell euros for U.S. dollars, then securities with a market value corresponding to the amount of euros sold should not count against the limit. As noted before, this trade has the effect of transforming euro denominated securities into synthetic dollar denominated securities, and they should be treated as such for purposes of this investment limitation.

The fund must also account for fluctuations in the underlying asset's value when determining its compliance with quantitative investment policies. In the second example, in which the fund hedges its cash with index futures, the value of the long side of the futures will rise and fall with the value of the index. If the fund constantly treated the futures as an underlying investment in only the notional amount

¹¹ This example illustrates the importance of understanding the purposes of the investment policy or limitation, just as it is important to understand the purposes of section 18, in order to regulate derivatives properly. If this particular limitation was intended to control the risks of offshore investments more generally, then a currency contract would not fully hedge these risks and should be disregarded when determining whether the fund complies with the limitation.

of the index, then it would underestimate (if the index rises) or overestimate (if the index falls) the futures' impact on the fund's total returns. In the example in which the fund shorted 21% of its portfolio by writing index futures, the fund must add and subtract changes in the futures' value from the notional amount of the short side of the futures. This will assure that the short created by the futures continues to be treated as covering approximately 21% of the portfolio. A fund must therefore add or subtract a contract's market value from the notional amount when determining its compliance with an investment policy or asset coverage requirement.

The analysis becomes more complicated when the long side of a derivative contract is a monetary obligation rather than an underlying asset. For purposes of diversification and concentration, it is necessary to determine who should be deemed to issue the obligation. The natural assumption is that the long side should be treated as an obligation issued by the counterparty to the contract. This may be a hasty assumption, however, insofar as the identity of the counterparty may be largely irrelevant to the returns from the contract.

There are several reasons why the identity of the counterparty may be irrelevant to the returns from the contract. First, if the contract is exchange traded, the counterparty would be a clearing corporation that (a) holds collateral for the market value of the contracts it clears and (b) is supported financially by its members. This makes the possibility of the clearing corporation defaulting on its contracts extremely remote and thus irrelevant to the performance of the contracts.

Second, it has become common to require collateral for non-exchange traded derivative contracts. The contract may require an independent amount in addition to margin to cover its in-the-money value. Although collateral does not reduce the risk of a default, it assures that the fund can immediately recover the full value of the contract regardless of the counterparty's financial condition.

Third, a fund would only be at risk for the in-the-money value of the contract. The notional nature of the contract matters in this circumstance. The fund will never need to recover the notional amount of the long side of the contract, which is offset by the notional amount of the fund's obligation on the short side of the contract. The fact that the notional amount is not at risk reduces the significance of the counterparty's financial condition to the returns on the contract.

Although counterintuitive, treating a long side as a generic monetary obligation, rather than an obligation of the counterparty, is consistent with the treatment of the long side of a future as an investment in the underlying asset. Technically, the long side of a futures contract is the counterparty's *obligation* to deliver the underlying asset, not the asset itself. Yet, we previously concluded that a fund should treat the long side of a futures contract as an investment in the underlying assets, rather than in the issuer, because the returns on the contract depend primarily on the performance of the underlying asset and not on the counterparty. The same is true of an underlying monetary obligation—the returns from the long side of the contract depend primarily on the term and interest rate of the obligation, rather than on whose obligation it is.

It therefore makes sense to treat the counterparty as the issuer of only the in-the-money value of its derivative contracts for purposes of diversification and concentration. This measures the real risk of

the issuer's performance to the fund's total return. It also makes sense to exclude the in-the-money value to the extent that cash or high quality assets collateralize it. Collateralized derivative contracts are analogous to repurchase agreements: the Bankruptcy Code contains provisions permitting the termination of derivative contracts and liquidation of any collateral immediately following the filing of a bankruptcy petition, so a fund should be able to recover the full value of the contract immediately following a default or event of insolvency. Rule 5b-3 permits investment companies to treat repurchase agreements that are "collateralized fully" as investment in the underlying collateral for purposes of diversification. I recommend that the Commission expand rule 5b-3 to cover derivative contracts as well.

The results of this approach to diversification may seem puzzling, but they should be familiar to anyone who has grappled with the diversification requirements of rule 2a-7, which contemplates a single security with multiple issuers and guarantors, each of whom may be deemed to have issued or guaranteed the entire amount of the security or only a portion thereof. Thus, when analyzing a derivative for purposes of diversification and concentration:

- An investment company should be treated as owning the notional amount of the asset or monetary obligation underlying the long side of a derivative contract, and as having borrowed and sold the notional amount of the asset or monetary obligation underlying the short side of the contract.
- The counterparty should be treated as the issuer of the derivative contract and not of any monetary obligation or asset underlying the long side. This would mean that any in-the-money value of the contract would be *both* (1) added to the notional amount of the long side of the contract and (2) treated as having been issued by the counterparty.¹²
- There should be two exceptions to treating the counterparty as the issuer of the in-the-money value of the derivative contract. First, the Commission should adopt a new regulation excluding derivatives clearing organizations that become parties to their cleared contracts from diversification requirements. Second, the Commission should extend rule 5b-3 to derivative contracts that are "collateralized fully."

The foregoing should apply to structured notes as well as to derivative contracts, except that a default or insolvency risks the entire value of the note. Thus, for purposes of diversification and concentration, structured notes should be treated as an investment of the full value of the note in both (a) the underlying asset and (b) the issuer.

This approach will not work for ABS, which pose a different problem. Formally, the SPE is the issuer of its ABS, but as a practical matter ABS derive all of their value and returns from their underlying pool of assets. The question is whether to respect or disregard the existence of the SPE.

¹² Treating the long side of a derivative contract as an investment in the underlying asset for purposes of section 5(b) of the 1940 Act and treating the counterparty as the issuer of the contract for purposes of section 12(d)(3) of the 1940 Act would have the same effect, so long as the counterparty is engaged in a securities related business. Nevertheless, I would be less confused by having to test the diversification of derivatives based on both the underlying asset and the counterparty than I would be by grafting a diversification requirement onto rule 12d3-1.

Given the purpose of diversification, concentration and similar limits, to regulate the dependence of a fund's returns on an issuer, industry or market sector, I am inclined towards disregarding the SPE. SPEs that simply pass through cash flows from the underlying asset pool according to the prioritization of its tranches resemble the issuer of a "conduit security" as defined in rule 2a-7. This definition codified the Commission's position that, when a security is payable solely from the obligation of a party other than the nominal issuer of the security, the nominal issuer should be disregarded and an investment company should "look through" to the other party as the issuer for purposes of diversification.

The "look through" approach may not work as well for more complex ABS, such as those with revolving asset pools or SPEs that act as multi-seller conduits. In fact, the most complex and active SPEs more closely resemble finance companies than passive conduit issuers. Even a simple ABS may have such a large and diversified asset pool as to make the cost of tracking the underlying obligations exceed the benefit of detecting unintended violations of investment policies. An absolute "look through" approach would therefore represent another case of foolish consistency. With respect to ABS, the Commission needs to strike a practical balance between the risk of a fund circumventing its policies through ABS and the likelihood of the underlying asset pool including obligations that might violate an investment policy. In rule 2a-7, the Commission struck this balance in its definition of "10% obligor." While I would not advocate extending this complex definition to section 5(b), the Commission should follow a similar approach in regulating the treatment of ABS for purpose of diversification and concentration.

III. OTHER REQUESTS FOR COMMENT

- A. *Should the Commission issue guidance on the fair valuation of derivatives under the Investment Company Act? If so, what issues should be addressed by that guidance?*

The financial crisis demonstrated the need for additional Commission guidance of the fair valuation of securities and derivatives. Other attorneys were probably as perplexed as I was when trying to apply the Commission's and the Division's previous statements to the extreme market conditions encountered during this period. Indeed, I would suggest that guidance as to the fair valuation of fixed income securities should be a higher priority for the Commission than guidance as to the use of derivatives. In no event should the guidance be limited to derivatives, as the valuation of derivatives does not raise any more pressing concerns than the valuation of other types of investments.

The critical issue is how funds should determine the fair value of an investment in the absence of any market between willing sellers and buyers. In a market dominated by forced sales, buyers do not have to pay what even they might regard as fair value for a security. While writing a portfolio down to forced sale prices can limit dilution from redemptions, it opens the door to dilution from purchases by offering the fund's shares at a fire sale price. How should we resolve this dilemma?

- B. *Are there special considerations that need to be taken into account for smaller funds? How might taking such considerations into account impact investor protection?*

I hope that my comments will help convince the Commission that complex and sophisticated uses of derivatives by investment companies require refined compliance procedures and risk controls to

assure compliance with the 1940 Act. The cost of developing and implementing these procedures and controls should be considered a necessary expense of using derivatives in this fashion. An adviser with a small amount of assets under management who wants to trade in derivative contracts must invest time in understanding the standard trading agreements (*e.g.*, futures and commodities account agreements or the ISDA Master Agreement) and terms of the individual contacts (as defined by the exchange or by ISDA). The adviser also should make a similar commitment to the development and implementation of appropriate procedures and controls for its use of the contracts.

Of course, a manager may choose to use derivatives in a less complex manner, which it can control with less intricate procedures. The examples in this letter illustrate how individual derivatives can be deconstructed into their long and short sides, and each side tested for compliance with various 1940 Act requirements. The Commission should permit an adviser (of any size) to use a case-by-case approach to regulating its use of derivatives, rather than requiring advisers to purchase complex risk management systems in order to use derivatives.

- C. *The Commission also requests comment concerning the potential for derivatives exposures to be understated. Further, if derivatives exposures are potentially understated, how should the issue be addressed? For example, should funds be required to provide additional information to investors? Also, if mark-to-market values are ascribed to derivatives for purposes of the diversification requirements, how should negative values for derivatives be treated?*

The Commission should probably include this comment in File Number S7-36-11 (Retrospective Review of Existing Regulations). Article 12 of Regulation S-X, and possibly Article 6 as well, are hopelessly antiquated, not just with respect to reporting derivatives, but with respect to 21st Century investments generally. The Commission needs to make someone on its staff accountable for keeping financial reporting current with developments in the financial markets.

Derivatives are best considered as examples of this more general deficiency. I routinely advise clients to include footnotes to their schedule of investments to mitigate the risk that the schedule, although prepared in strict compliance with Article 12, might be considered misleading regarding their derivatives holdings. I recommend that the Commission review the various footnotes that investment companies add to these schedules and other information regarding the composition of their portfolios in shareholder reports and prospectuses. These footnotes will provide a catalogue of issues that the Commission should address in its financial reporting regulations and guidance.

I addressed the last question posed in this request the preceding section. So long as funds use the notional amount to value their initial investment for purposes of diversification and concentration, then a negative market value should be used to adjust the notional amount (generally subtracted from the notional amount of the long side and added to the short side). When the counterparty is treated as the issuer of the derivative contract itself, a negative value means that a fund will not suffer any loss if the counterparty defaults, so the contract should not be included in the amount invested in the counterparty. If the fund has the right to set off its obligations under the contract against other portfolio instruments

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issued by the counterparty, it may even be appropriate to subject the negative value from the other amounts invested in the counterparty.

Another interesting question is how to treat the short side of a contract used for investment leverage. If a fund writes a forward contract or call option on securities it does not own, should the notional amount of the contracts be limited by the fund's diversification and concentration policies? So long as the purpose of these policies is to limit the dependence of the fund's total returns on the issuer's financial performance, they should be applied to unhedged short as well as long positions. The fact that the fund is banking on a security's value falling rather than rising does make diversification any less important to its total returns. The short side of a contract should therefore be subject to diversification and concentration limitations to the same extent as the long side of the contract.

IV. CONCLUSION

Although it has taken dozens of pages to explain my approach to regulating the use of derivatives by investment companies, they can be briefly summarized. First, the Commission must keep its eye on the ball. With respect to derivatives, the ball is the derivatives' effects on the investment company's total returns. You cannot successfully regulate derivatives without understanding how they modify the performance of the rest of the fund's portfolio.

Second, dividing derivative contracts into their long side and short side provides a heuristic technique for answering most compliance questions regarding the use of derivatives. You must analyze each side independently, although in the context of the entire portfolio, for compliance with regulations and investment policies. Each side of the contract must be carefully characterized to avoid including factors that are irrelevant to the actual risk of the contract (*e.g.*, treating the counterparty as the issuer of an underlying obligation).

Finally, the Commission should regulate derivatives in a manner that serves the purposes of the 1940 Act and of the investment company's policies and limitations. Substance should take precedence over form to the extent possible in applying the 1940 Act to derivatives. Although limitations in the scope of the 1940 Act, as well as practical limitations, will prohibit the Commission from treating all forms of derivatives in a consistent manner, a liberal interpretation of the law and an equally liberal use of the Commission's exemptive authority will go a long way toward protecting investors in the manner intended by Congress.

Thank you for considering these comments. If you have any questions, please do not hesitate to contact me.

Respectfully submitted,

/s/ Stephen A. Keen