

May 2009

## Model Portfolio Commentary

Stocks continued to rally sharply in April. The large-cap S&P 500 (based on Vanguard 500 Index) gained almost 10% for the month, and is now down only 2.5% through the first four months of 2009. Smaller-cap stocks did even better, with the iShares Russell 2000 ETF gaining 15.4%, trimming the year-to-date loss to 1.8%. Developed-market foreign equities generally were in line with the U.S., while emerging-market equities outperformed. On the fixed-income side, Vanguard Total Bond Market Index Fund gained about 0.4% in April, and is up about 0.7% for the year. Munis continued their tear in April, and the Vanguard Intermediate-Term Tax Exempt is now up almost 5% for the year. Our tactical positions generally were strong contributors to our model performance. High-yield bonds, even though most of the position is funded from equities, held their own, with the benchmark Merrill Lynch U.S. High Yield Cash Pay Index gaining over 11% in April, bringing its year-to-date gain to 17.1%. Our sale of REITs came after they had gained about 22% through the first two weeks of April, so that was a positive. Most significant was the aggregate outperformance of both our fixed-income and equity managers. While the length of time our models have been outperforming is too short to be meaningful, the magnitude of their outperformance during that span (beginning in December) is meaningful, and ranges from just over 400 basis points to around 700 basis points.

April Benchmark Returns (Preliminary)		
Large-Cap Benchmarks	Apr	YTD
Vanguard 500 Index	9.6%	-2.5%
Russell 1000 (iShares)	10.1%	-1.4%
Russell 1000 Growth (iShares)	9.5%	5.0%
Russell 1000 Value (iShares)	10.7%	-7.8%
Mid-Cap Benchmarks		
Russell Midcap (iShares)	15.3%	5.0%
Russell Midcap Growth (iShares)	14.2%	10.3%
Russell Midcap Value (iShares)	16.6%	-0.4%
Small-Cap Benchmarks		
Russell 2000 (iShares)	15.4%	-1.8%
Russell 2000 Growth (iShares)	15.0%	3.8%
Russell 2000 Value (iShares)	15.8%	-6.9%
Other Benchmarks		
Vanguard Total Int'l Stock Index	12.8%	-1.9%
Vanguard Emerging Mkt Stock Index	16.1%	16.2%
Vanguard REIT Index	31.3%	-10.8%
Vanguard Total Bond Mkt Index	0.4%	0.7%
Merrill U.S. High Yield Cash Pay	11.3%	17.1%
Citigroup World Govt. Bonds Index	0.0%	-4.8%
JPMorgan ELMI +	4.3%	0.1%
DJ-AIGCI (Commodity Futures)	0.7%	-5.6%

### A Dangerous Web—Credit Default Swaps Can Hedge Risk but Have Increasingly Been Used to Amplify It

September 2008 saw the onset of what amounted to panic in the usually staid credit markets. When the stock market panics, it free falls (as it did shortly thereafter), but in credit markets extreme fear can take the form of a total freeze-up in lending and bond trading. It's a quiet, shell-shocked version of panic. In the days and weeks that followed, as the world digested what was happening, the fear spread, and virtually all assets bearing risk were battered amidst a massive global sell-off. It would turn into the worst bear market since the 1930s.

One source of the fear was knowable—the global financial system had taken on massive leverage and used it to make investments that were now collapsing in value. Another source of fear stemmed from something that by its very nature couldn't be pinned down—a web of complex and unregulated financial instruments, mainly credit default swaps (CDS) that intertwined the fates of financial firms around the globe and made determining creditworthiness with confidence almost impossible. How can you lend or buy debt with no confidence you'll be paid back? Ultimately, the worst case imaginable would involve a chain reaction of insolvency resulting in the systemic collapse of the global financial system (a fear that increased when AIG nearly failed).

Much has been written and said about excessive leverage in the U.S. financial system and the need for us to shed leverage (or delever) before the economy can get on a healthy footing. Some of



Stapp FINANCIAL

Your trusted financial advisor

that leverage stems from the growth in CDS, which are private, unregulated two-party “insurance” contracts where one party, for a fee, promises to pay the other in the event a borrower defaults on a debt. They were originally designed to transfer (hedge) credit risk, but morphed into tools that helped financial institutions take on leverage.

This month, we take a thorough look at CDS, both in terms of the risks they present and the possible outcomes, as well as the value of CDS in a conventional portfolio management context. We addressed the macro issues, including the systemic risk posed by CDS, with derivatives expert Satyajit Das, and excerpts of that interview are presented here. We follow with an interview with members of PIMCO Investment Management’s investment team, about how they, as practitioners, use CDS to add value at the portfolio level while concurrently dealing with the potential risks they pose.

### **Interview with Satyajit Das**

Satyajit Das is a consultant in the area of financial derivatives and risk management. He is the author of a number of highly regarded reference works on derivatives and risk management including *Swaps/ Financial Derivatives Library* (a four-volume 4,200 page reference work for practitioners on derivatives) and *Credit Derivatives, CDOs and Structured Credit Products*. He is also the author of *Traders, Guns & Money: Knowns and Unknowns in the Dazzling World of Derivatives*, which the *Financial Times* called “fascinating reading ... explaining not only the high-minded theory behind the business and its various products but the sometimes sordid reality of the industry.”

### **Do credit default swaps pose a systemic risk as we enter a high-default environment?**

Potentially yes, but we can’t be sure. Fundamentally, credit default swaps are quite economically useful. Theoretically, they can be used to transfer credit risk. But they don’t get rid of risk entirely. You just change one risk for a series of different risks. The first is counterparty risk because you are now hedging with somebody and you’re completely reliant on them performing.

Secondary issues then flow from that. The first is that we use a lot of collateral to reduce counterparty risk. Most of these arrangements are untested in the type of environment we are in. As we’ve observed with Lehman Brothers, we don’t really know how they will exactly work if there are significant defaults.

The second element is that you’re assuming that these contracts exactly mirror the risk that is being hedged. There are documentary issues. There are concerns that these contracts may not work as intended. They won’t do what it says “on the packet.”

Finally, if CDS are used to speculate on and create additional leverage, they introduce new systemic risks. This may amplify the losses and create systemic problems for banks and financial institutions.

What this points to, in my view, is something people don’t want to talk about. Whatever the social and economic utility of derivatives, they change the nature of financial markets by introducing new risks. What they also do is they tie all the actors and markets together which complicates things. This is like the “chain-letter” game. Somebody hedges with somebody, who hedges with somebody, who hedges with somebody, etc. The problem is the whole system behaves rather like an electricity grid. Only one part somewhere has to be damaged or go down before the whole system stops functioning.



**Stapp** FINANCIAL

Your trusted financial advisor

## **In the electricity grid, we have the system of circuit breakers or short circuits to prevent the whole thing blowing up. Are there circuit breakers with CDS?**

Fundamentally, the short-circuit system that we've seen is called "The Taxpayer." Post-Lehman, the central bankers and Treasury officials around the world decided that this is fundamentally too dangerous ... and effectively act as an insurer of the system.

Interestingly, the industry is not focused on creating circuit breakers. We've seen two or three rather bizarre moves from the industry in my view. One is changing the documentation which has the effect of moving the contract further away from a hedging instrument into a purely trading or speculative instrument. The industry is also trying to implement a central clearing counterparty, under pressure from regulators. That's a way of trying to solve the counterparty risk issue. Fundamentally, if you look at both of the initiatives, they make CDS contracts a better speculative instrument, but it is a poorer and less effective hedging instrument.

This is the fundamental debate the derivatives industry does not want to have. Are derivatives purely a hedging tool? Or is the bulk of derivative activity focused on using them as a speculative tool? The industry pushes the line that derivatives are for hedging. The evidence doesn't necessarily align with that.

## **What about the point of a central clearing house?**

Basically, it is a futures exchange supported by a clearing house. We've already encountered huge problems with institutions that are "too big to fail." So what we're trying to do is to take all the CDS contracts and put them through a central clearinghouse. So now we will have one entity that the entire counterparty risk will be concentrated into! The question that I'd ask is: What is the credit standing of that central counterparty?

There are a number of current proposals for creating the central clearing counterparty. The approach of one large exchange was interesting—its members did not want to act as the central clearer for the CDS contracts. They didn't want to risk their money. Their rationale was quite straightforward: "We don't understand these instruments; we don't understand how to mark them to market properly; we don't know how to margin them properly. So, why would we put our money at risk for something we're not sure about?"

The clearing house will require massive standardization of the contracts. That's fine, but that doesn't work very well for hedging with CDS contracts when you have [widely differing] debt obligations in the market.

Amusingly, we are also likely to have multiple clearing houses along national prejudices—the United States wants one, the Europeans want one (though London and Paris are fighting about where it goes) and the Japanese also want their own! Multiple clearing houses defeats the purpose somewhat.

The clearing house proposal, while it has merits, has not been particularly well thought through. It is, in reality, the industry's rushed response to the threat of increased regulation.

## **Could you expand on how the systemic risk is amplified? How would it pass through to the economy? What would be the mechanics of it?**

Lehman is quite a good example. If you look at Lehman, my understanding is that Lehman probably had around about \$600 billion in debt. When they defaulted, the people who'd lent money to Lehman had essentially lost a substantial portion of that \$600 billion.

On the other side, there is a parallel CDS market [estimated to be] \$400 billion to \$500 billion [in notional exposure]. This is all in the OTC market. So we really don't know how much exactly is outstanding and who the contracts are between. So, there's the uncertainty.

Let's assume that there is \$600 billion of debt and, say, \$400 billion to \$500 billion of CDS. Now, in an ideal world, if the CDS were all used for hedging, then nothing really changes. All the

CDS do is basically transfer the risk.

But there are suggestions that only about \$150 billion of the CDS contracts where Lehman was the reference entity were hedges. The \$150 billion in hedging positions doesn't change the total sizing of the loss. That leaves somewhere between \$250 billion and \$350 billion of CDS which were not used for hedging and these effectively amplify the loss in the financial system.

Those losses have immediate effects. The person that has to pay them may or may not be able to find the money. Under those circumstances, he would have to essentially liquidate assets, go into bankruptcy, or make claims on other people. So the use of CDS for non-hedging purposes can amplify the amount of losses in the system and how they are transferred between parties.

Defaults can have secondary effects. These relate to obligations to other people who are affected. AIG is a very good example. The basic insurance business is sound. This shows how one part of your business can damage other solvent parts of your business. That's how this enters the real economy.

### **On your point regarding the risk of amplification of losses, why do we read reports about the Lehman settlement being very benign and low?**

In Lehman's [case], the number for the auction-based cash settlement is around \$6 billion. It doesn't necessarily include the losses of other people who chose the physical settlement option.

There is also the effect of the netting process. Dealers, like JPMorgan, might have sold protection on Lehman but they would have also bought protection on Lehman. Hypothetically, you could have a trillion dollars of contracts on one side where you've sold protection offset by a trillion dollars in contracts on the other side where you bought protection. So the net settlement would be small or negligible.

The market has been careful in talking up how well this is all working. That's fine. That part worked. The fundamental thing they don't want to talk about is the "other part." For instance, I was aware of one bank in the world that took delivery of \$1 billion of Lehman securities on which they would have probably suffered substantial losses. That number was not included in the \$6 billion amount.

### **People can write CDS contracts without owning the bond. Are there enough reserves out there to meet potential obligations for these contracts? If not, who will ultimately be on the hook? Will it be the government?**

You've raised a very important point, which is about the reserves and capital of protection sellers.

If you're a bank, one of the attractions of using CDS to hedge credit risk is that central banks and bank regulators allow you to offset the positions and reduce the amount of capital you would have to hold against the underlying credit exposure that you hold. That's one of the big drivers of this market. The problem is, you're now holding very low, or sometimes no capital, against the loan you've made or bond you own because you're assuming the hedge will work. But if the hedge doesn't work well you've got no reserves or [inadequate] reserves.

You need to look at the person selling protection—in essence this person is acting like an insurance company. Now if you're a regulated entity, like a bank or an insurance company, there will be some requirement under the regulation of your industry to put up some capital but the question becomes how accurate that calculation of the required capital is.

The second problem stems from the non-regulated part of the businesses. This is the hedge funds and other investors who sell protection. It now depends on how good your counterparty risk assessment is and how creditworthy they are. A lot of that relies on the other great flaw in this whole derivatives/CDS complex—the use of collateral to reduce counterparty credit risk.



Stapp FINANCIAL

Your trusted financial advisor

For instance, I write a CDS contract where I sell protection to you on a company. You look at me and say, "I don't like your credit risk." So, on \$10 million face value, I put up \$2 million. [The \$2 million is called the "initial margin."]

Then we agree that if the value of the contract changes over time, I will mark that to market and post additional margins. The first thing is we are not sure whether the mark-to-markets are 100% correct. Fundamentally, accuracy relies on liquidity in the underlying name. In the CDS market, there are lots of names that are not that liquid. A lot of this is margining based on mark-to-model rather than mark-to-market—probably more mark-to-make-believe! These models, like all models as we've discovered in recent history, may not necessarily be as good as we thought they were.

Next, let's say there's a default or a sudden deterioration in the credit quality of this underlying security. You come to me and ask me to post additional margin. I say to you, "I don't have the money." What do you do then? You go out to the market to close out the contract. But that assumes liquidity. It also assumes that the \$2 million you're holding, the initial margin, is sufficient to cover the "gap" or "jump" risk.

The incentive structures that are built into the collateral system are pretty interesting. Prime brokers and investment banks who help facilitate these deals compete with each other on the basis of giving you more leverage at a cheaper rate. So essentially, the incentive structure is to give a hedge fund more leverage. That means that initial margin is lower than perhaps it should be. Under those circumstances, there is no assurance that the initial margin will cover that gap risk. So you're really not fully protected. This risk exists even when there is liquidity.

The final problem relates to collateral management. It is difficult to ensure all the proper operational steps have been done properly on a timely basis.

The whole point of using collateral is that it enables you to get capital relief, as a hedger, when you traded with people where normally you wouldn't get any capital relief.

So, to go back to your question, the amount of capital and reserves held in the global system against the risk being hedged is not clear. It's impossible to determine whether what is there is adequate to the level of losses that we're going to get.

### **How would it impact defaults and recoveries in the high-yield universe?**

The best way to think about it is a "feedback loop." Everybody assumes the CDS market is like an overlay on top of the cash market. But in many ways, the CDS market almost has a life of its own and impacts the real market. There are a couple of ways we're seeing that play out currently.

The first is in terms of recovery rates. Since 2008-2009, the auctions-based CDS settlement payouts have been highly variable and skewed. [These are the payouts computed for CDS settlements where no physical bonds are involved.] People are now feeding that information back into the cash market. What they're now saying is, "Maybe the recovery rates we've assumed are too high." What we're now seeing is the secondary market prices for leveraged loans and high-yield bonds for distressed names trade at very, very low levels, well below what historical recovery rates would imply. Clearly, in the current financial environment and economic environment, recovery rates probably should come down. But my view is, at least in part, the actual impact of CDS trading and the auction mechanisms has reduced the assumed recovery rates and the prices of these securities.

You now also create terribly adverse incentives. Let's say you have a leveraged or a private-equity loan. The company is in financial difficulty. You have a bunch of lenders who have hedged. They might be worried, looking at whom they've hedged with, so they may want to trigger the contract quickly before these guys run out of money. Of course, if you're not hedged, you might not want that to occur, simply because you might think that the value of your debt would be better preserved if you could restructure the loan.



Stapp FINANCIAL

Your trusted financial advisor

These tensions are being experienced in the high-yield market. If high-yield defaults go up, we'll see two phenomena that vary from history.

First, you will see more companies pushed into bankruptcy rather than restructured. Second, you'll see lower recovery rates. Both would amplify losses.

I'll give you one example of what ISDA has done recently, which raises concerns. [In seeking to standardize contracts] they've proposed taking away restructuring as one of the credit events to trigger a CDS contract. If restructuring is not a credit event then you may have no choice but to put the company into bankruptcy to trigger your CDS contract. That may not be in the long-term interest of either the shareholders or other creditors that aren't hedged.

**We've heard about the negative-basis trade. How does that impact lower-quality corporate bonds? And even higher-quality corporate bonds?**

CDS markets have some relationship to the firm's equity. Corporate debt is similar to buying a Treasury and simultaneously selling a put option on the company's stock. You can hedge that by shorting the stock. These are capital arbitrage trades. The typical one is where we buy the stock and then buy protection on the CDS. If the company gets into financial difficulties the stock price will go down, but it will be offset by the gain from credit spreads going up. That's the theory anyway. We can do the reverse, i.e., sell protection on the CDS and short the stock.

These types of trades are done by capital-structure arbitrage-focused hedge funds and proprietary traders. In itself, that's fine. But, if you put a lot of leverage on these trades, you're making a massive bet on the correlation between the equity price of a particular company and its credit spreads. That may or may not work well.

This starts to affect the credit spreads and the share prices of companies.

As you know, in the United States, they put a ban on short-selling stock. Everybody then just went out and bought protection on the firms they wanted to short by buying protection using CDS. It gives you a similar payoff profile.

The relationship between the stock and the CDS can make monkeys out of regulators because investors can effectively replicate what [regulators] are trying to prevent. It also starts to influence both the stock price and credit spreads of companies.

For instance, what many companies don't really understand is one of the reasons they enjoyed such low credit spreads [in the past] was the presence of these basis trades. Essentially, the trade created artificial demand for their bonds and loans that may not be there in the future.

**Given the lack of transparency how would you suggest investors protect their portfolios from this risk?**

The power of prayer comes to mind! I think there have to be huge, huge efforts by investors. If you're investing particularly in financials, it's vital to understand what types of risks from these types of instruments sit in their books. That's challenging because disclosure is inadequate.

The CDS market, despite the industry's greatest protestations, I don't think will recover to its heyday. That means the cost of debt for industrial companies isn't coming down to the same levels anytime soon. Those are all things that investors should be extremely, extremely cognizant of in stock valuations.

You also can't discount the fact that there will be dislocations in the market from defaults that then are exacerbated and made much worse by malfunctions and dysfunctions in the CDS market.

**In the case of a practitioner, such as a fund manager, working hard in terms of daily collateral management, having very rigorous documentation requirements with**



Stapp FINANCIAL

Your trusted financial advisor

**counterparties, and diversifying across the various counterparties ... could all of these things combine to mitigate the risks they face in their portfolios?**

Absolutely. Fund managers can use CDS contracts to hedge their own bond positions or they could sell protection as a way of synthetically creating the position. There's nothing inherently objectionable about that.

But the fund manager needs to understand the documentary issues. You need to also understand the counterparty risk issue.

For example, AIG found themselves in a position, when they got downgraded because of the mark-to-market losses, that they would have to come up with north of \$10 billion instantaneously to counterparties. They just didn't have the money, creating all sorts of issues for people who dealt with them.

So, these technical provisions can sometimes affect solvency issues, and fundamental valuation issues like earnings. It's very, very important that people understand these issues.

**Can you envision a scenario where the process of unwinding of CDS positions, and hence leverage, is benign?**

If there were zero defaults or if CDS contracts were only used for hedging and the match to the underlying risk was perfect and all sellers of protection were of high credit quality and able to meet their obligations. [But] we just don't live in that kind of world at the moment.

The CDS market originally was predominantly a market for transferring and hedging credit risk. The contract itself has many attractive economic features and can serve useful purposes in hedging and transferring risk. But in recent years, the ability to trade credit, create different types of credit risk to trade, the ability to short credit and also take highly leveraged credit bets became increasingly important. The CDS market detached from the underlying "real" credit market. If defaults rise then the high leverage, inherent complexity, and potential loss of liquidity of CDS contracts may cause problems. We will have to wait and see.

**Could firms reduce or eliminate their exposure in the near term, before it becomes a major problem?**

The market has done some positive things—they have netted identical contracts to reduce exposures. Volumes have come down which is positive. In the end, the \$62 trillion peak volume may come down to say \$15 trillion to \$20 trillion. [But] that is [still] greater than 30% of global GDP! The problem is also that you can't easily get off this ride even when it gets nasty. The contracts are typically for around five years. One party (in the current environment probably the party purchasing protection) has a "winning" bet. Why would he let the other side of the trade (the party selling protection) off the hook? The buyer has paid fees for the protection either to hedge existing exposures or bet on credit conditions deteriorating—so they want to maintain the trade. If they want to realize the gain by terminating the contract then the other side would have to pay the mark-to-market loss now anyway. So you can reduce notional [amount] outstanding but the risk remains.

Now factor in the risk amplification of derivatives. If any entity defaults then the losses are greater because of the speculative component of the market. This then weakens other players and the whole thing radiates like an exponential function. You can get rid of some of the risk but you can't get rid of it entirely. Other than dealers who in their market-making functions are probably reasonably matched, the winding down of exposure is not that easy. I know people who are buying protection via CDS on the seller of protection in a preexisting contract. It's like buying protection on AIG from Lehman just before they blew up. It is just not that easy to wind this back painlessly. The market has tried and will keep

trying. At the end of the day people made “supersized” bets on there being no or very low levels of defaults in the Goldilocks years. That’s ancient history. If there are defaults then like all bets that come due you have to pay up or face the consequences. Unfortunately, if you have then used leverage to increase the size of your bets then you make things worse. That’s where we are. Also the inherent nature of the instrument you are using to make the bet is flawed and all the people at the table may not be good to pay up if their bets go sour. That has secondary consequences for everybody in the world. This means there is a risk of serious dislocation as CDS trades unwind. It is possible that things line up perfectly to make this process benign but if I was a betting man I wouldn’t be putting all my chips on that outcome. It will be interesting to see how that all plays out.

### **Interview with PIMCO on Using CDS in Portfolios**

Following our conversation with Das, we spoke to three product managers at PIMCO. Their responsibilities include high-yield bonds, investment-grade bonds, bank loans, convertibles, and derivatives. We spoke to them because we wanted to understand how PIMCO, as a practitioner, uses CDS in its credit strategies and how it minimizes the associated risks that Das discusses above.

The three PIMCO representatives (each works in the Newport Beach office) are: Ryan M. Hart, a product manager responsible for credit and diversified income strategies; John Kirkowski, a vice president and product manager responsible for credit products, including investment-grade corporates, high-yield, bank loans, and convertibles; and Chris Caltagirone, a vice president and product manager.

#### **How do you use credit defaults swaps in your portfolios?**

Ultimately, the way we use CDS in portfolios will of course vary by nature of the mandate. In our Opportunistic Alternative Strategies, such as the Global Credit Opportunities Fund, credit derivatives are used heavily.

We use CDS in three different ways. One, we use synthetic exposure or CDS to replicate long exposure to credits. That could be individual names, or it could be the market as a whole where we’re managing exposure to the beta of credit using various indices. Second, we use CDS to hedge positions where we may own the physical bond and are looking to take advantage of relative value opportunities known as the “basis.” Due to the illiquidity in the physical cash bond markets, CDS have been trading as an efficient hedge on the credit side. Finally, in some accounts, we may use them from time to time to take an outright negative view on a credit. For example, when we were very bearish on housing it led to a very bearish view on certain sectors related to housing. In an environment like that—where you’re managing against an index that doesn’t include those names—we may be buying protection with CDS. In today’s environment, it would be the second type of use. You’re earning a carry more than you have ever earned in the history of the market.

#### **Why is that? Just purely because of physical bonds being less liquid, and there’s a liquidity premium?**

Yes. If you looked at the relationship over the last two-plus years, you could point to several different factors that have driven the relationship. That includes delevering on both the side of cash-bond markets and credit-derivative markets. It also includes illiquidity and hedging in front of earnings season. Today, however, it really is the illiquidity premium in the cash-bond market place that’s driving that. In addition, to put on that type of position requires a lot of capital up front, more so than it has in the past as broker-dealers and counterparties have raised collateral requirements. Naturally, when you put more capital as an [initial] margin spreads will widen.

**You mentioned that you were able to use CDS to short some housing-related sectors. So you didn't have the ability to do that in the physical bond market?**

Yes. It's also more of a view on best and the most-efficient way to implement the trade. [For example], one option to gain long exposure on credit would be selling protection on that same credit and, [at the same time] managing interest-rate duration risk via [investing] the underlying collateral portfolio [in certain securities]. In a sense, what we are doing there is decomposing two risks. So, you could manage your credit risks via one instrument and manage duration risk and curve risk with another instrument. That's generally how we would approach using credit default swaps. We'd be 100% collateralized, i.e., we wouldn't be using them to leverage up the portfolio. It's simply a more efficient vehicle for our clients to gain that long exposure and where we want the flexibility to be able to both express the credit view and express an interest-rate view.

In this environment, with CDS generally trading rich to cash bonds, and our view on duration not [as] high-conviction as are our credit views in this environment, we are currently favoring cash bonds to get that long credit exposure.

**You mentioned that it's 100% collateralized. How do you assess the quality of the collateral? Also, I understand that the CDS contract value can change quite materially in a short span of time. So, how would your collateral needs be balanced in that situation?**

We have a counterparty risk committee who establishes all of the guidelines for our collateral posting, including counterparties' credit quality and what [securities] we demand as collateral. That's been a very important focus at PIMCO for a very long time. We've had established guidelines and policies around that for many, many years, though they have been strained in the past two years. That counterparty risk committee includes senior portfolio managers at PIMCO, general counsel, other legal folks, and the head of our credit research team. We address questions such as, what is the security associated with our positions; what is our exposure to any counterparty, both on a portfolio level and a firm-wide level?

In terms of actual collateral flows, we've been requiring daily margin flows [over the last year]. Our agreements state that for any individual portfolio movements above \$250,000, we have the right to demand collateral. We have tightened these requirements from weekly flows. In terms of the collateral we post, it will typically be high-quality, investment-grade assets with short-duration.

**What about documentation? How do you ensure that you are indeed hedging yourself to the referenced entity? For example, we have read and heard that CDS contract documentation is not very standardized. It can be inferred differently by different people. And, complexities arise if the company is being restructured.**

That's generally true, although ISDA has recently enacted a series of changes, both to the structure of CDS contracts and the convention for payments and settlements. One of those changes would be what would trigger the default. They have basically dropped restructuring as a credit event for these liquid CDS contracts. The overarching goal for all of these changes is to eliminate and help mitigate some of that systemic risk. They're making the contracts more fungible. You still have the ability to trade OTC, but with the contracts being more fungible, it's moving toward more of an exchange-traded type of operation for credit default swaps.

The benefit to credit default swap investors and the investment community is that while you still have counterparty risk with the counterparty that you're facing, an exchange [mitigates] the domino effect of counterparty risk. In other words, if you're facing a Lehman or an AIG, you're concerned strictly with their counterparty risk and not with the outside counterparty risk that they're taking on.

You raised a good point. Whether something is restructured or what happens in the event of an M&A type of situation ... there are lots of rules associated around that, which are pretty complex. I think you really need to have the resources dedicated to analyzing both the legal and contractual side, and the market implication of every single contract you invest in. We have that. We have legal resources and portfolio managers that do that.

**You talked about assessing counterparty risk, and that you have a lot of people thinking about that. Is there enough transparency out there for you to confidently assess counterparty risk?**

Yes. We have not seen broker/dealers or banks open up every single line item on their balance sheet. But they provide summary-level exposures, and data on capital levels and balance-sheet liability. Those are all things we take into consideration when we're approving counterparties that we may interact with.

Our credit research team and resources play a very important role in that. Of our 28 research analysts, eight of them cover financials in some way, shape, or form. The head of our [credit] research team is on the investment committee and on the counterparty-risk committee. We approach counterparty-risk assessment the same as we would approach credit-risk assessment. All factors that go into [assessing] the creditworthiness of the bank, go into the assessment of counterparty risk. We tend to favor those that have the more transparent balance sheets and have more secure, stable sources of funding.

**I understand negative-basis trades are generally prevalent in the lower-quality corporate credits. Do you have thoughts on whether that exists in the higher-quality segment, and whether it can force even higher-quality corporates into distress and bankruptcy?**

There's absolutely a negative basis between many high-quality physical bonds and credit derivatives. It will vary by credit quality and typically gets wider as you move down the [quality] spectrum. It's creating a little bit more distress in the high-yield, but not as much in the investment-grade market. It speaks to why we are really favoring those investment-grade names in this environment.

When a company's thinking about defaults, ultimately it's the physical bond market that really matters to them. What do they need to refinance, and what are the coupons they need to pay? If there are tons of short-sellers [those that are buying protection], and there's no arbitrage available between the cash markets and the credit derivatives market ... yes, in theory, it could push up the cost of financing for these companies.

**So, in the high-yield space, how might the negative-basis spread trades impact the default rates and recovery rates compared to previous economic downturns? Do you have a sense of the impact for high-yield?**

In previous downturns, the credit-derivatives market was not really as well developed. CDS [market] really grew over the last several years. So, there's no real data point to compare it to. However, the things we can point to are the CDS auctions that have occurred in both high-yield and in investment-grade. They have seen orderly exchange of principle, and established a market-clearing price for recoveries at the time of that auction.

[That said], if you're an investor that didn't own any cash bonds at all and owned a lot of credit derivative exposure, you could be delivered physical bonds. As a result, you may have different investors ending up on creditor committees than what we've seen in previous down cycles. You may see more investors either wanting to get out of the bonds as quickly as possible, or to the extent they are not experienced negotiators or workout specialists they may look for a quick exit. A quick exit on the bonds could mean a lower recovery on the bonds.

**Despite some of the changes, could an AIG-like event occur?**

There will always be some element of systemic risk in the market. For that reason, all participants have tightened their approach to who they trade with.

The reason AIG got into a lot of its issues were the structured credit in both consumer and corporate credit portfolios; for example, CDOs [collateralized debt obligations]. Clearly, this is not likely to come back anytime soon. If it does, it will be very different than its original form. Rating agencies have come out and said they will never have a triple-A rating given to a synthetic CDO again. That is how a counterparty was able to get around collateral posting requirements. That's how AIG and the monolines got their triple-A ratings; same thing with Icelandic Banks. Clearly, they did not deserve these ratings.

—*Stapp Financial Planning, PLLC*