SECTION V: ENHANCED CREDIT MARKET RESILIENCY

A. Introduction

A sound foundation and sturdy frame – unseen by the casual observer – underlie the integrity of any structure, making it safe for ordinary use, preventing it from collapsing in on itself, and supporting it against unexpected, external shocks. In short, strong foundations and sturdy frames ensure structural resilience.

The recent, seismic shock to the financial markets has thrown into sharp focus some of the flaws and deficiencies in the foundation and frame that support the credit markets and the credit derivatives market in particular. The goal in this section of the Report is to highlight some of the most important structural flaws and make specific recommendations to remediate those deficiencies. The analysis does not undertake an inquiry into the macro- or microeconomic benefits or costs of particular financial instruments. Rather, it assumes that the credit derivatives market will continue to be a large, growing and important part of the global financial landscape and we therefore seek to expeditiously reinforce the weak structural elements of the market architecture.

While the focus of this section is on the credit markets, we would expect that many of the observations and recommendations are transferable to other markets characterized by rapid growth, innovation and complexity, including (but not limited to) interest rate derivatives, equity derivatives, and commodity derivatives. This section also incorporates several specific recommendations related to the fixed income tri-party repo market given its importance to the financing by dealers of a significant share of their inventories.

A resilient credit derivatives market requires the ongoing commitment of major market participants to support the talent, technology, business process, market practice and legal architecture integral to a strong market foundation. That foundation should be designed and operated to (1) avoid systemic risk that would arise from operational malfunction during ordinary markets, and (2) absorb, rather than amplify, shocks created by extraordinarily stressed markets.

Such a commitment may require market participants to (1) make costly investments in infrastructure (in both human capital and technology), (2) change business processes, and (3) accept changes to market practices that in the past have generated sizable revenues but have done so at the cost of not investing in more scalable infrastructure. This reinforcement of the market structure will fail if not explicitly mandated and monitored by the senior-most executives of major market participants (buy-side as well as sell-side) and actively encouraged and supported by senior officials of central banks and other official institutions.

This section highlights six interrelated areas of weakness in need of immediate improvement and enhancement. They are:

I. *Timeliness and integrity of transaction details*, including the economic terms of the transaction and subsequent transfer, assignment or novation of the transaction.

II. *Daily reconciliation of collateral valuations*, including trade population reconciliation, valuation methodology and market inputs to that methodology.

III. *Operationally manageable number and gross notional of outstanding trades in the market*, including compression of the current market outstandings and the subsequent avoidance of regrowth.

IV. *Credit Event settlement*, including greater efficiency and certainty of the process.

V. *Close-out of defaulting counterparty,* including adoption of a viable method for timely and orderly close-out and general preparedness to execute a close-out of a major counterparty.

VI. *Central Clearing Mechanism.*

The Policy Group makes specific recommendations for strengthening each of these six areas of weakness, including:

- Improvements to the infrastructure that processes trade confirmation and reconciliation of transaction details, and suggested timeline for implementation.

- Enhancements to the daily valuation and collateral management process.

- Endorsement of an industry initiative to compress outstanding trade populations.

- Formal adoption of the auction-based, net physical settlement procedure for Credit Events as a part of standard ISDA documentation.

- Rapid bilateral adoption, which has already begun, amongst major banks/dealers of the Close-out Amount methodology, and the creation of a close-out ISDA supplement that would bridge the gap between the Market Quotation method and the Close-out Amount method and thereby facilitate a more general, wide-scale adoption of a more resilient close-out method without prejudicing the rights of a defaulting party.

- A central counterparty helps address many of the deficiencies of the current market foundation, and the Policy Group recommends that the industry move with deliberate speed toward the creation of one or more such counterparties in a manner that does not compromise the integrity or robustness of the marketplace.

In making the recommendations in the sections below, the Policy Group is cognizant of the fact that some of them are very ambitious in light of existing market practices. Nevertheless, the Policy Group firmly believes that these recommendations are more than just aspirational in nature. Rather, they are concrete goals that, if implemented by major market participants, will substantially enhance the credit market's resilience to stress events and conditions, including the failure of one or more major counterparties. Therefore, the Policy Group strongly urges major market participants to make substantial progress toward implementing the recommendations by the targeted dates, recognizing that progress is likely to vary across firms. The Policy Group also recognizes the need for the support of official institutions, especially the Federal Reserve Bank of New York, in implementing these recommendations in line with the target dates.

The Policy Group is mindful of the enormous scale and complexity of the issues and challenges raised in this discussion of market resiliency, but it is also mindful of the substantial progress made in these areas after the publication of the CRMPG II Report three years ago. Many observers regard this progress as a classic example of private sector/public sector cooperation. Significant steps were taken in reducing confirmation backlogs, shifting from manual to automated processing, the creation and operation of the DTCC CDS "warehouse," and perhaps most importantly halting the practices of assigning trades without the consent of the original counterparty. In contemplating these and other improvements, it is probably reasonable to conclude that as severe as the crisis of the past 12 months has been, it almost certainly would have been worse if these improvements had not been made. In that spirit, the Policy Group looks forward to a continuation and an intensification of cooperation with the Federal Reserve Bank of New York and other official institutions in a concerted effort to bring about the further enhancement of credit market resiliency as contemplated by the following discussion.

B. Timeliness and Integrity of Transaction Details

Trade matching, confirmation and settlement must be the foundation for any discussion about market resiliency. The rapid confirmation and settlement of a transaction ultimately drives the integrity of market valuations and collateral exchange, ensures common certainty in credit event settlement, and gives the market confidence in the orderly close-out of defaulting counterparties. In short, the standards that market participants apply to the orderly processing of trades must be sufficiently robust to withstand at least the kind of shocks and systemic disruption that the market has experienced over the past 12 months.

That said, a resilient credit derivatives marketplace requires the development of the next generation of efficient, controlled and scalable operational infrastructure, particularly around the population of trades which are eligible for electronic platforms. The industry and its major market participants need to implement tools and practices that achieve a same day (T+0) standard for confirmation and regular ongoing reconciliation of positions, settlements and market-to-market values (MTMs). If this is done, a significant degree of dispute resolution will be avoided.

We urge senior leaders and regulators to take a direct interest in progress on this topic.

Throughout the life cycle of a trade, specific goals must be met to achieve the required standard of resiliency.

Recommendations

V-1. The Policy Group recommends trade date (T+0) matching for electronically eligible transactions.

Goal: End 2009.

At the inception of a transaction, an electronic record representing the evidentiary requirements for a legal trade is required to ensure the agreement of all trade and allocation details between counterparties. When achieved on trade date, this record can serve as the binding foundation for all ongoing trade activities – clearing, settlement calculation, and warehouse activities such as credit event processing. Subsequent client trading (*e.g.* novations, partial and full terminations) should likewise follow a T+0 matching standard. These records also serve as an optimal basis for accurate risk management. A T+0 matching standard also supports the goal of implementing a centralized clearing arrangement, the benefits of which are discussed below.

A key point to the success of the above goal is convergence of the affirmation and confirmation processes. The current process of affirmation presumes delays in the legal confirmation process and bifurcates the workflow between the trading desk and operations. As industry participants merge trade date matching with the legal confirmation process, the need for an affirmation workflow is eliminated. To achieve this goal, front office personnel may be required, in coordination with support and control personnel, to communicate systematically and directly with each other to confirm transactions electronically under tight timeframes.

V-2. The Policy Group recommends the linkage of confirmation and settlements.

Goal: Dealers early 2009.

The exchange of cash flows on a trade (including but not limited to fees, coupons and credit event settlements) should be based upon the legal electronic trade record. This serves to prevent ongoing disputes around portfolio composition, trade status, economic details, calculations and other common root causes of settlement disputes. Central settlement for credit derivatives was launched in a phased approach within the DTCC's Deriv/SERV Trade Information Warehouse in November 2007. The initial phase has been successfully implemented among a group of 18 dealer firms but has not yet been expanded to include buy-side firms. To strengthen the link between confirmation and settlement, the Policy Group recommends dealers complete development of the central settlement platform. In addition, the Policy Group encourages the broadening of central settlement to buy-side market participants.

V-3. The Policy Group recommends a tiered approach to market participation and incentive structure.

Goal: Ongoing.

The increasingly sophisticated market infrastructure will require a two-tiered approach for market participants. High volume participants from both the buy- and sell-sides will be expected to use technology and processes that facilitate adherence to the above same-day submission and matching standards. While it is expected low-volume participants (fewer than four trades per month) will maintain industry guidelines around confirmation and settlement timeliness, it is not expected that this group will necessarily participate electronically. Regulators should impose appropriate incentives on derivatives dealers to adhere to market standards and practices.

V-4. The Policy Group recommends incentives to buy-side participants.

Goal: Ongoing.

It is important to recognize that buy-side market participants will operate at different volumes. Moderate to large-volume participants (more than four trades per month) will be expected to adhere to the same standards as dealer-side firms with respect to transmission standards, trade date confirmation, settlement and mark-to-market comparisons. As with adoption of the Novation Protocol, dealers should consider limiting trading activity with firms that do not adhere to industry standards. Adherence to industry standards should be part of a routine dealer operational due diligence (side-by-side with the normal credit due diligence).

C. Implementation challenges

The marketplace faces challenges on several fronts that must be overcome in order to meet the above next generation goals. These limitations necessitate fundamental changes to industry platforms, standards, processes and participant-specific technology and resources. Most of these changes have not yet been turned into operational implementation plans, which may raise significant practical and cost issues. Senior management should clearly support and set these goals into business plans at each participating firm and review ways to resolve the expected obstacles. Progress made should be reviewed with regulators, as appropriate. These challenges are discussed briefly below and recommendations are made for overcoming them.

1. Segregation of trade execution, affirmation and confirmation

Presently, credit derivative trades are executed in a variety of methods (for example, voice, broker or vendor platforms). Many participants will separately affirm the trades either via voice, email or a vendor platform. In yet another separate step, legal confirmation is sought via DTCC or a signature on a paper trade. The bifurcation of these processes splits the management and control of a given trade between the trade executors (*i.e.,* sales, trading) and the operations professionals who typically affirm and confirm the trades.

Recommendation

V-5. The Policy Group recommends that market participants should seek to streamline their methods for trade execution and confirmation/affirmation, which should facilitate an end-to-end process flow consistent with same-day matching and legal confirmation.

2. Resourcing

To achieve a T+0 standard for matching and legal confirmation, a significant investment will need to be made in human capital for key areas such as legal, technology, operations, controllers and risk management. Senior management should be cognizant of both the cost implications and the lead time required to hire these relatively scarce professionals.

Recommendation

V-6. The Policy Group recommends that senior leaders of trading support functions should clearly articulate to senior management the resource requirements necessary to achieve the same-day standards. Recognizing the expense management imperatives driven by recent market conditions, senior management should make every effort to help support functions achieve these standards for the overarching benefit of enhancing market resilience.

Goal: Ongoing.

3. Vendor readiness and facilitation

In today's marketplace, vendors provide a variety of solutions to various aspects of the workflow and lifecycle – affirmation, confirmation, prime brokerage give-ups, portfolio reconciliation, *etc.* Often, solutions are not designed to be compatible with one another, with the result that participants must build out and support multiple technology integrations. Furthermore, required time to market on new products and life cycle events often lags market growth and innovation, and vendors face pressure to go live with phased or incremental solutions to remain relevant in the marketplace.

Recommendation

V-7. The Policy Group <u>strongly urges</u> that major market participants should deploy a combination of utility and vendor-supplied solutions and should, at a minimum, ensure interoperability of those solutions.

Goal: End of 2009.

4. Speed of electronic adoption

Both buy- and sell-side participants have proven to require lengthy ramp-up periods to integrate electronic platforms. Increasingly standardized legal documentation (*e.g.,* standard terms supplement) has provided some benefit, but onboarding negotiations still consume time and resources. As new functionality is rolled out, participants schedule the development and testing according to internal schedules and priorities. These efforts significantly slow the speed to electronic platform usage.

Recommendation

V-8. The Policy Group <u>recommends</u> that major market participants on both the sell- and buy-sides should make every reasonable effort to speed up the adoption of electronic platform usage. This should entail revisiting the priorities in development and testing schedules.

Goal: End of 2009.

5. Market standardization

While tools exist today for standard processing (for example, DTCC pay receive, CLS, RED identifiers, and DTCC new product rollouts), many market participants still lag significantly behind and are inconsistent in the adoption of these tools.

Recommendation

V-9. Consistent with Recommendation V-7 above, the Policy Group further recommends that major market participants on both the sell- and buy-sides should hasten their adoption of tools that facilitate standardization in the marketplace. This will in turn facilitate the achievement of the next generation goals for the timeliness and integrity of transaction details.

Goal: End of 2009.

D. Collateral Management Process

Counterparty risk monitoring and risk management are enhanced by robust portfolio reconciliation and collateral management practices. In the sections below, CRMPG III makes recommendations to improve practices in the credit derivatives market. It also addresses collateral management practices in the tri-party repo market, the smooth functioning of which is critical to overall performance of financial markets.

1. Derivatives Market

Recommendation

V-10. The Policy Group further recommends frequent portfolio reconciliations and mark-to-market comparisons, including on collateralized instruments.

Goal: Weekly end 2008, moving to daily for electronically eligible trades mid 2009.

Along with timely bookings and same-day electronic trade records, frequent portfolio reconciliation standards ensure (1) the ongoing integrity of the trade population versus each trading counterparty and (2) that any material mark-to-market differences are isolated and escalated to the trading desks or higher levels of management for immediate review and resolution. This function serves as a sound basis for accurate margin calculations, a critical component of market resiliency. Ensuring that appropriate fair market valuations are agreed on all product types also will act as a foundation for any close-out situation in the event of a default. In making this recommendation, the Policy Group emphasizes the critical need to maintain the confidentiality of client trade information consistent with applicable internal "wall crossing" restrictions. Dealers should review such processes and enhance them to the extent necessary. To facilitate the implementation of this recommendation, the Policy Group further recommends that the industry develop a common file format for the exchange of portfolio information.

2. Common collateral standards

Recommendations

Today's collateral management process, driven in large part by the sell-side, is bespoke in terms of the format, process and resourcing of each major market participant. This bespoke nature strictly limits the industry's capability to quickly diagnose the root causes of disputes. To achieve a best-in-class standard for collateral, the Policy Group recommends:

V-11. ISDA Credit Support Annex documents spell out the bilateral terms of the margin process. While the process is generally standardized, the Policy Group recommends that the industry find an effective means to resolve valuations disputes, particularly for illiquid products. Doing so is likely to be a difficult and demanding matter and therefore an industry-wide approach may have to be considered.

Goal: End of 2009.

V-12. The Policy Group recommends that, as mark-to-market disputes inevitably surface through the collateral portfolio reconciliation process, the information should be passed to the executing trading desks on a real-time basis to allow for research and resolution. This should, of course, be done with appropriate anonymity for the counterparty's identity, positions and broader portfolio. A close alignment of the collateral team with trading desks – without violating the fire walls and controls that are critically important to the integrity of the financial system – would facilitate such information sharing. As necessary, significant and large value collateral disputes should promptly be escalated to the appropriate senior officers.

Goal: Immediate.

The implementation challenges related to these collateral management goals are similar to those related to the goals for timeliness of transaction details. They should be addressed in a coherent fashion to maximize the opportunity for successful implementation. On a note of caution, as the industry pursues changes needed to bolster the resiliency of the CDS market consistent with these recommendations, it must do so in a manner that preserves the ability of firms to execute and maintain bespoke transactions which serve legitimate economic interests.

3. Tri-party Repo Market

The dealer community relies on repurchase agreements (repos) entered into with investors as a principal source of funding. A large percentage of dealer repo financing is arranged in the form of tri-party repos, with Bank of New York and JPMorgan Chase & Co. acting as clearing banks. Tri-party financing originated as an adjunct to the banks' U.S. government securities clearing business, through which the banks, via their accounts at the Federal Reserve Bank of New York, facilitated the settlement of dealer purchase and sale of U.S. Treasury and U.S. government-related entity securities. Tri-party financing evolved as a natural extension of the banks' clearing role and proved to be a highly efficient vehicle for the dealers to finance their securities inventory with the investor community while at the same time offering independent collateral management services to investors, assuring the investors that their collateral would be held by the banks in safekeeping at all times.

In recent years, dealer clearing activity has expanded to include a wider range of less liquid and sometimes harder to value security types, and investors have accepted these securities as collateral for their repo financings. In addition, maturities are often overnight, although investors and dealers also enter into term repos.

While the clearing banks act in the role of agent, on the morning following the repo trade, if the clearing banks are prepared to extend credit to the respective dealers, they will “unwind” the repo, crediting cash to the investors’ accounts and holding the dealer’s securities to collateralize the intra-day loan.

When clearing tri-party repo transactions, clearing banks extend secured intra-day financing to dealers in two situations:

1. For maturing repo transactions, the clearing bank unwinds the transactions between tri-party investors and dealers between 8 am and 8:30 am. The cash lent by a tri-party investor is returned to the investor in a bailment account held at the clearing bank. The investor may instruct the clearing bank to:

    - wire the cash to another bank (usually from 8:30 am to 10:30 am);
    - use the cash in the bailment account to net payments during the day under a pre-agreed netting program;
    - retain the cash in the bailment account, available to be moved at the investor's instructions; or
    - move the cash to the investor's custody or demand deposit account at the clearing bank.

2. For term repo transactions, the clearing bank also unwinds the transactions between tri-party investors and dealers between 8 am and 8:30 am. The cash lent by a tri-party investor is then moved to a bailment account (per above) in the name of the investor, returning the dealer's securities to its box account. This practice enables the dealer to more easily use its securities for trade settlement and to substitute other eligible collateral.

In both scenarios 1 and 2 above, the clearing bank allows dealers to deliver out of the box securities securing the clearing bank's intra-day financing as long as there is sufficient Net Free Equity (<u>NFE</u>) in the account. The NFE is the current market value of the securities in the box <u>plus</u> the intra-day margin established by the clearing bank <u>minus</u> the intra-day financing provided for any particular dealer. The NFE ensures that intra-day secured financing provided by the clearing bank is properly collateralized.

The tri-party repo market could pose systemic risk issues, in particular, if the clearing banks fail to effectuate the "unwind", due to liquidity, collateral or dealer creditworthiness concerns. Another potential source of stress to the financial system emanates from dealer funding risks if the dealer has excessive reliance on overnight financing for less liquid, harder to price securities, or should investors be unwilling to roll their overnight repo arrangements. In light of the manner in which the market has evolved and the risks market participants bear, as described above, the sections below outline actions that can mitigate such risks.

Recommendation

V-13. The Policy Group <u>recommends</u> that dealers, investors and the clearing banks agree on "Best Practices" to govern the tri-party repo market. Components of such Best Practices should include the following:

1. Tri-party repo program size.

Secured financing of dealer inventory plays an important role in the capital structure of the dealer community. However, as with any financing technique, dealers should not be overly reliant on any one type or source of financing, and should establish parameters to assure diversified sources of funding and appropriate term structure. Consideration should be given to the liquidity under stressed conditions of the inventory which is being financed, with sensitivity to avoid excessive overnight funding of illiquid securities. Use of term repos should be encouraged with maturity schedules spread out to avoid concentration of roll-over risk occurring on any single day. The clearing banks should also consider setting specific limits regarding the amount of intra-day unwind exposure that they will take to a given dealer based upon the composition and liquidity of the dealer's collateral and other relevant factors.

2. Margin.

Margin should be proportional to the risk of the collateral, meaning it should be sufficient to cover the potential price decline of the securities held as collateral during expected liquidation timeframes. To accomplish this, margin should be applied to collateral types at a level granular enough to distinguish their risk, taking into account the price volatility and the liquidity of each security. Investors should regularly review their margin requirements (investor margin) in order to assure that they accurately reflect current market conditions, and should also stress test their assumptions for adverse market environments. Clearing banks should determine how much margin is required in order to undertake the intra-day risks associated with the daily unwind and whether to impose concentration and/or notional limits on certain types of securities (clearing bank margin). Such clearing bank margin should be set at levels which accurately reflect current market conditions and should be stress tested for adverse market environments. These steps should enable market participants to be well equipped to make the best possible risk assessments. Finally, clearing banks and investors should make individual credit assessments of each dealer to determine margin requirements and the amount of intra-day credit available.

3. Collateral eligibility.

Collateral eligibility is determined based on negotiations between borrowers and lenders. Clearing banks will establish their own eligibility standards. As a general matter, collateral eligibility should be based on the quality and liquidity of securities being pledged by dealers. Appropriate collateral types should be defined along with concentration and diversification standards. Such standards should be continuously reviewed in light of prevailing market conditions and stress tests. Consideration should be given to publishing aggregate data reflecting market practice indicating collateral mix, by type, ratings and maturities.

4. Collateral valuation.

Collateral valuation methodologies should be transparent and reliable. Clearing banks and investors should understand and be satisfied with the reliability of the sources used to price collateral, whether based on bids or quotes from market participants or pricing models, or sourced by vendors or by multiple or single dealers. Pricing methodology flags should be used to indicate how the price was set and margin should be adjusted to take into account the source and methodology used to derive security prices. Prices used for valuation purposes should reflect the most current market conditions, and stale pricing should not be utilized.

E. Managing Size of Trade Population

Market risk is best measured by net notional exposure. However, gross notional exposure and the number of outstanding line items are relevant to counterparty and operational risk. While considerable progress has been made in enhancing the operational infrastructure of the credit derivatives market since 2005, continued rapid growth in the volume of credit derivatives traded, outstanding gross notional and “warehoused” line items now demand that market participants work together to reduce gross notionals by terminating offsetting trades. Compressing the industry’s current outstanding notional would have two immediate and systemic benefits: (1) a reduction in market-wide operational risk and (2) a reduction in counterparty risk, thereby enhancing ease of "close out" going forward.

Recommendation

V-14. The Policy Group recommends that market participants actively engage in single name and index CDS trade compression. ISDA has agreed on a mechanism to facilitate single name trade compression with Creditex and Mark-it Partners. Established vendor platforms exist for termination of offsetting index trades, and we urge major market participants to aggressively pursue their use.

The Policy Group notes that the industry has agreed to separate future trade compression and market consistency discussions from the historical portfolio compression. The industry did caveat that the historical compression should not preclude any future consistency or compression solutions and should be supportive of the industry's long-term goal to match and clear CDS on trade date.

Recommendation

V-15. Based on the considerations above, the Policy Group recommends that the industry, under the auspices of the current ISDA Portfolio Compression Working Group, commit immediately and with all due speed to achieve consistency of the current product, including potentially:

- utilizing industry preferred Reference Obligations or elimination of Reference Obligations;

- eliminating Restructuring Basis distinctions, recognizing that this needs to be considered in a broader global perspective taking into account regional and national differences; and

- standardizing fee calculations based on a single, common model analytic.

F. Credit Event Settlement

Standard credit derivative documentation currently provides for physical settlement of transactions following the occurrence of a credit event involving the reference entity on the trade. As the volume of outstanding transactions has grown over the last several years so too has the prospect of market disruption due to settlement through disorderly delivery of bonds and loans. In credit events over the last three years for which there were a significant number of affected trades, ISDA has published a protocol to allow parties to amend their outstanding trades to facilitate cash settlement while preserving the option of physical settlement. In each case an ISDA-sponsored auction, managed by Creditex and Mark-it Partners, has been conducted to establish a price for one or more deliverable obligations. Each of these auctions has produced an outcome that has been generally accepted in the market as an appropriate valuation of deliverable obligations.

Participation in the auction by adherence to the protocol is a voluntary process and, while the vast majority of active market participants have participated in the past, there is a concern that, given the voluntary nature of the protocol process, for any given credit event one or more major market participants could choose to stay outside the protocol and auction process. As the protocol and auction process is designed to reduce the need to physically settle a large number of trades, one or more major market participants choosing to stay outside will continue to raise the prospect of a squeeze on deliverable obligations, with resulting volatility and uncertainty around the ability to settle a large number of trades. Though that risk is small and this situation has not occurred in the previous protocols, the uncertainty that could arise would undermine the broad-based acceptance of credit derivative products and justifies expeditious action.

ISDA has anticipated incorporation of the auction mechanism into its standard credit derivative documentation, using the experience of past credit events to make minor modifications to the mechanism. The mechanism has not been utilized for a credit event in Europe or for a credit event involving a very large reference entity with a large number of outstanding obligations. While the mechanism would no doubt benefit from being tested in those circumstances, it is clear now that it is more important to incorporate the mechanism into the standard documentation so that market participants will be committed to follow the process.

Building the settlement auction into the ISDA documentation requires decisions to be made in advance about a number of issues that would otherwise be addressed on the basis of the particular fact situation. There are therefore a number of issues that must be solved before the auction methodology can be built into the ISDA documentation. These include:

- how an auction following a Restructuring Credit Event should be structured, given that the provisions of the ISDA definitions limiting the maturity of deliverable obligations reference the maturity dates of individual contracts (given the difficulties with structuring an auction following a Restructuring Credit Event, it is likely that the process may, initially, move forward focusing solely on Bankruptcy and Failure to Pay Credit Events);

- how the decision as to the deliverable obligations to be included in the auction should be made, and disputes resolved within the timescale of the auction; and

- dispute resolution procedures generally.

In light of this background and the related issues, the Policy Group recommends the following:

Recommendations

V-16. The Policy Group recommends that ISDA should update its Credit Derivative Definitions to incorporate the auction mechanism so that counterparties to new credit default swap trades commit to utilize the auction mechanism in connection with future credit events.

V-17. The Policy Group recommends that ISDA should run a protocol (a so-called "big bang" protocol) to provide market participants with an operationally efficient means to amend their existing credit default swap trades to utilize the auction mechanism in connection with future credit events. This protocol should not effect any other changes to the bilateral agreements in effect between adopting counterparties.

In making these recommendations, the Policy Group recognizes that some market participants, particularly on the buy-side, might wish to consider the nature and extent of participation in an auction mechanism more selectively than would be afforded through a big bang protocol. As some of these market participants approach the auction issue on a case-by-case basis, the Policy Group strongly encourages them to review the benefits of such an approach as discussed above.

G. Counterparty Close Out

The subject of the methodology used to execute close out by a non-defaulting counterparty in the event of a default by one or more counterparties has been a subject of lively discussion in CRMPG III, just as it was in CRMPG II and CRMPG I. While the terms of these discussions are often highly complex, the central issue is the extent to which market participants generally are willing to use the so-called “Close-out Amount” as promulgated by ISDA in 2002 as the methodology for close out of a defaulting counterparty. In this regard, it remains true (as was the case with CRMPG II in 2005) that among many “buy-side” market participants there is a concern that the ISDA Close-out Amount may work to the disadvantage of the defaulting counterparty. For this reason, CRMPG II and CRMPG III were unable to reach agreement calling for the broad application of Close-out Amount as an industry standard. Nevertheless, a clear consensus has emerged around three principles that must be associated with any close-out methodology. These are: (1) commercial reasonableness; (2) duty of good faith; and (3) fair dealing. The Policy Group believes these principles must guide any future work in this area.

In a simple world in which market prices and/or market inputs for all financial instruments were readily available and systemic financial shocks <u>never</u> occurred, this debate would have been resolved long ago or, perhaps, the debate would have never occurred. However, neither of these conditions has existed for many years. Thus, the risk associated with the close out of a major counterparty in a stressed market environment has risen appreciably. Indeed, one can only speculate as to how much worse things might have been in March 2008 if dozens of counterparties were simultaneously seeking to close out Bear Stearns at the same time.

In these circumstances, the CRMPG III attaches great significance to Recommendation V-18 whereby the dealer community is in the process of adopting the Close-out Amount methodology in their relationships with each other. Recognizing that the dealer community as a whole represents a substantial fraction of total transaction volume and the fact that the intra-dealer exposures are very large, this common approach within the dealer community represents a clear and positive step in the direction of containing systemic risk.

Over the course of the deliberations of CRMPG III, the opposition on the part of the buy-side to extending Recommendation V-18 to all market participants surfaced once again. In those circumstances, Recommendation V-19 calls for a further effort to develop a close-out methodology, under the auspices of ISDA, which would apply to all market participants. The Policy Group attaches great importance to the consensus that emerged on the need for prior agreement on valuation parameters as a prerequisite to migrating to a commercially reasonable close-out procedure, described below. At the same time, however, the Policy Group is uneasy about recommending yet another effort to reconcile the differing views with respect to the policy and legal underpinnings of close out in the 2002 ISDA model as this could introduce more uncertainty into a situation that needs more certainty, not less. But given the importance of work on prior agreement on valuation parameters, the Policy Group believes another attempt to come up with a potential industry-wide approach could be worthwhile, provided that such discussions are streamlined in scope and time.

Given the explosive growth and complexity of financial markets in recent years, and with particular emphasis on the CDS market, a further source of potential instability relates to the policies and procedures associated with the close out of defaulted counterparties – especially large counterparties – in a stressed market environment. To achieve orderly close out in such circumstances, the process must meet the following criteria:

- does not add to market instability;
- produces commercially reasonable prices for purposes of close out; and
- is practical to implement for portfolios that are potentially large and contain illiquid positions.

The Policy Group has considered in detail the challenges of closing out a major market participant and reaches the following conclusions:

- The Market Quotation method (1992 ISDA) is impractical for the early termination of a counterparty with a large and/or complex portfolio, particularly one including bespoke transactions.
- At the same time, neither the Loss method (1992 ISDA) nor the Close-out Amount method (2002 ISDA) is acceptable to a large number of counterparties (in particular, buy-side counterparties) due to concerns of potential for unfairly disadvantaging a defaulting counterparty.
- A prerequisite to migrating to a commercially reasonable close-out procedure is for the counterparties to have previously agreed to any necessary valuation parameters and methodologies, to have evidenced these in their relevant agreements (ISDA Master, supplements to the Master or confirmations, as appropriate) and to have established a robust daily process of valuation reconciliation in order to highlight any discrepancies in valuation approach or parameters long before a close out might need to occur.
- There is general agreement that in determining close-out amounts market inputs should be used unless doing so would produce a commercially unreasonable result. However, there remains a significant disagreement as to whether the definition of Close-out Amount in the 2002 ISDA Master Agreement in practice achieves an outcome that is both consistent with that general agreement and commercially reasonable.

- Given this general agreement on the desirable outcome (that market inputs should be used unless doing so would produce a commercially unreasonable result), the Policy Group believes that it should be possible to reconcile the competing views in order that one generally accepted formulation of close-out methodology reflecting that general agreement could be used by the market and that, given the desirability of a consistent industry-wide approach, further efforts should again be made to reconcile these views.

Consistent with these conclusions, the Policy Group recommends the following:

Recommendations

V-18. The Policy Group recommends that all large integrated financial intermediaries (*e.g.*, the major dealers) should promptly adopt the Close-out Amount approach for early termination upon default in their counterparty relationships with each other. We note that this can be agreed and suitably documented without making any other changes to the ISDA Master. The Policy Group expects that these arrangements will be in place in the very near term.

V-19. The Policy Group recommends that a working group should be formed under the auspices of ISDA, with representatives of both dealer and buy-side firms, to review the methodology for counterparty terminations in order to (1) produce a set of best practices and suggested bilateral templates for the transparency of valuation methodologies and parameters, as noted above, for use by all market participants, (2) consider how contractual provisions could reflect prior reconciliation of valuation parameters and (3) seek to reconcile the differing views on what is necessary to evidence agreement that market inputs will be used unless commercially unreasonable. The Policy Group hopes that the working group will be able to report a recommended approach by December 31, 2008.

V-20. The Policy Group recommends that all major market participants should periodically conduct hypothetical simulations of close-out situations, including a comprehensive review of key documentation, identification of legal risks and issues, establishing the speed and accuracy with which comprehensive counterparty exposure data and net cash outflows can be compiled, and ascertaining the sequencing of critical tasks and decision-making responsibilities associated with events leading up to and including the execution of a close-out event.

V-21. The Policy Group recommends that all market participants should both promptly and periodically review their existing documentation covering counterparty terminations and ensure that they have in place appropriate and current agreements including the definition of events of default and the termination methodology that will be used. Where such documents are not current, market participants should take immediate steps to update them. Moreover, each market participant should make explicit judgments about the risks of trading with counterparties who are unwilling or unable to maintain appropriate and current documentation and procedures.

V-22. The Policy Group recommends that the industry should consider the formation of a "default management group", composed of senior business representatives of major market participants (from the buy-side as well as the sell-side) to work with the regulatory authorities on an ongoing basis to consider and anticipate issues likely to arise in the event of a default of a major market counterparty.

H. Central Clearing

Many of the issues discussed in this section and the related recommendations have a direct bearing on the speed and effectiveness with which the industry can implement a centralized counterparty clearing arrangement (CCP) for classes of transactions starting with CDS. A robust CCP can significantly benefit the stability of the credit derivatives market by creating a shock absorber to lessen the impact of a default by a major participant in the market. A CCP will also fit well into the existing market infrastructure and add to the overall efficiency of risk-reducing efforts within the industry.

A CCP will provide financial resources to absorb the shock of a major participant default through use of initial margin, variation margin and a guarantee fund structure. This effectively mutualizes the counterparty risk of the participants to each other. In addition, a CCP will help to reduce gross amount of trades required to be unwound in the event of a participant default, thereby reducing the operational impact of a participant default. Compression across a given curve point to a position-based notional will be enhanced by a CCP that allows true counterparty indifference in the compression process and centralizes the operational process of multilateral netting.

Moreover, a robust CCP will create an additional layer of risk management across the largest market participants. Unusually large or risky positions may result in additional margin, which can in turn create pressure on participants to maintain high quality risk management practices and appropriate capital.

But there are many challenges in ensuring that a CCP is in fact robust and actually reduces risk, rather than providing merely the appearance of risk reduction. In fact, any CCP will face certain limitations. A CCP cannot, on its own, create additional liquidity that does not naturally exist in the market, though it can facilitate trading which may help increase liquidity in the market. Additionally, the need for frequent and robust trade valuations means that not all asset classes will be eligible for a CCP, which means many of the issues raised above will still need to be addressed on a bilateral basis.

In November 2004 the Bank for International Settlements Committee on Payments and Settlement System and the Technical Committee of IOSCO issued a report titled "Recommendations for Central Counterparties" (BIS Recommendations). The report provided 15 headline recommendations which covered the major types of risks CCPs face. The report also included a methodology for assessing implementation of the recommendations, and provides guidance on the assessment of a CCP. Development of any CCP for the clearing of credit derivatives must take these recommendations into account. However, the recommendations leave room on a number of issues for judgment by a CCP, and its regulators, on how to best implement the recommendations.

The sections below set forth some of the key challenges in the development of a CCP for credit default swaps.

1. Participant Criteria

A CCP must control the risks to which it is exposed by dealing only with sound and reliable counterparties. Participation requirements established by a CCP are its primary means to ensure that participants have sufficient financial resources and robust operational capacity to meet obligations arising from participation. To reduce the likelihood of a participant's default and to ensure timely performance by the participant, a CCP should establish rigorous financial requirements for participation. Capital requirements should also take account of the nature of products cleared by a CCP. In addition to capital requirements, some CCPs impose standards such as a minimum credit rating or parental guarantees.

A CCP should establish requirements to ensure that participants have robust operational capacity, including appropriate procedures for managing risks, such that the participants are able to achieve timely performance of obligations owed to the CCP. They should also have arrangements to effect collateral, payment, and delivery obligations to the CCP. Since the nature of the credit markets requires a longer post-default liquidation period than other asset classes, membership criteria should ensure the ability to participate in the unwind process in the event of a participant default.

A secondary participation issue which must be addressed is the extent to which the arrangements for clearing credit derivatives between a CCP and its participants will flow to non-participants. It is important to note that in the context of the credit derivatives market, electronic trade processing, which is often associated with clearing, is and will remain available to the general market within DTCC's Deriv/SERV Transaction Information Warehouse.

2. Availability of Daily Pricing Across the Cleared Portfolio

One of the challenges for the clearing of credit defaults swaps will be to ensure sufficiently transparent end-of-day pricing across the entire cleared portfolio. Pricing of cleared trades will be used to measure risk, assess margin and guarantee fund contributions and will be used to unwind the trades of a defaulting participant. This means that before any asset class may be cleared at a central counterparty there must be sufficiently transparent pricing available at the end of each trading day to ensure appropriate margin may be calculated.

One point of concern, even in the liquid parts of the market expected to be cleared by a CCP, is the pricing of “off-the-run” trades. Most trading occurs to the nearest of four quarterly dates that is at least five years from the trade date. For example, most five-year trades executed between June 20 and July 19, 2008 will mature on September 20, 2013. Every three months, the maturity of the “on-the-run” trade is pushed out by three months. Additionally, many investors will unwind trades within six months to a year after they originally put the position in place. As a result, the market sees less activity in trades that have been outstanding for longer than one year and the vast majority of aged credit derivatives exist between major dealers. Any CCP will need to ensure there is appropriate pricing available for cleared products to set acceptable margin and guarantee fund requirements. Participating firms will need to provide higher quality marks than they currently do and must do so for all tenors and names. Margin policies may also require adjustment to reflect any change from “off-the-run” to “on-the-run”.

3. Structure of Margin, Guarantee Fund and Assessment Rights

Establishing the appropriate margin and guarantee fund structure presents perhaps one of the greatest challenges a CCP for credit derivatives may face. Agreeing on a structure will require reaching consensus among participants and regulators regarding the risk management models used to measure risk. The BIS Recommendations provide a good deal of qualitative guidance, particularly on the topic of ensuring a CCP’s ability to withstand the default of the counterparty to which it has the largest exposure in extreme but plausible market conditions. However, the BIS Recommendations leave the quantitative measurement of the test to be determined by the CCP and its regulators.

A CCP's members will need to agree to an appropriate margin structure which accounts for the following:

- liquidity of each cleared product;
- changes in liquidity of a given cleared product over time ("on-the-run" to "off-the-run");
- potential for increased margin on outsized positions; and
- effort and cost required to unwind a participant's portfolio in the event such participant defaults.

The size of any guarantee fund will reflect the degree of protection provided by the agreed margin structure. Consideration also will have to be given to the inclusion of assessment rights on participants should the margin structure and guarantee fund prove insufficient in the event of participant defaults. As part of the CCP development process, appropriate stress testing of actual and hypothetical portfolios would help provide a solid basis for determining the relative size of these risk management features. A sound risk management program would incorporate ongoing stress testing of portfolios to take account of evolving market and firm-specific conditions.

These issues will need to be addressed in a manner that satisfies the clearing participants, and their regulators, that the CCP is reducing risk across the system and adding to the stability of the market.

4. Regulation

Given the regulatory, media and legislative attention focused on the credit derivatives market, it is important that any CCP ensure appropriate regulatory support. This will require interaction with the various regulatory bodies that regulate not only the CCP itself but also the clearing participants. Any CCP for credit derivatives should engage in a frequent and open dialogue with the various financial markets regulators to ensure it is addressing the BIS Recommendations in a manner that will satisfy the relevant financial markets regulators from inception.

5. Policy Group Views on Development of a CCP

Recommendation

V-23. Recognizing the benefits of a CCP as discussed above, the Policy Group strongly recommends that the industry develop a CCP for the credit derivatives market to become operational as soon as possible and that its operations adhere to the BIS Recommendations.

The Policy Group is aware of several CCP initiatives. It is most familiar with The Clearing Corporation effort, which is targeting to begin clearing OTC CDS on indices in the fourth quarter of 2008. In providing its support to any CCP arrangement that can demonstrate it is robust, the Policy Group notes the following, which will be critical to its success:

- senior management support at large market participants will be necessary to ensure the commitment of appropriate financial and operational resources; and

- incorporating non-index CDS trades into the CCP is likely to require agreement of further market conventions for purposes of trade valuation. This may in turn have business impacts, particularly on dealers, that will have to be balanced against the benefits of central clearing.

Ultimately, the Policy Group firmly believes that the challenges of developing a CCP for the CDS market can and will be addressed by the industry in close consultation and cooperation with the official sector, as has been demonstrated in the creation of other CCPs that have served to enhance market resilience.

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