Staff Paper

Project **Offsetting Financial Assets and Liabilities**

Topic **Board Education Session**

Purpose of the paper

1. At the 17 May, 2011 joint meeting, the boards discussed the feedback received on the proposals in the ED (Agenda Paper 5/Memo 13A – May 2011). Based on the feedback received, the boards requested further analysis on the following issues before deciding on a way forward:

   (a) Unit of account

   (b) Treatment of collateral /margin

   (c) Simultaneous settlement criterion

2. **The staff notes that issues 1 (a) and 1(b) will have to be addressed irrespective of the offsetting model that the boards decide to pursue.**

3. The purpose of this paper is to give the boards background on two of the above issues (unit of account and treatment of collateral/margin). The staff intends to bring a paper addressing the simultaneous settlement criterion (item (c) in paragraph 1) at the next joint meeting, depending on the outcome of today's discussions.

4. The staff has also organised an education session for representatives of the International Swap and Derivatives Association (ISDA) and clearing houses to explain further the issues raised in comment letters on the treatment of collateral in the ED..

Section A: Unit of Account

ED Proposals

6 An entity shall offset a recognised financial asset and a recognised financial liability and shall present the net amount in the statement of financial position when the entity:

(a) has an unconditional and legally enforceable right to set off the financial asset and financial liability; and

(b) intends either:

(i) to settle the financial asset and financial liability on a net basis, or

(ii) to realise the financial asset and settle the financial liability simultaneously.

In all other circumstances, financial assets and financial liabilities are presented separately from each other according to their nature as assets or liabilities.

10 For the purposes of this [draft] IFRS:

(a) Offsetting is presentation of one or more financial assets and financial liabilities as a single net amount in the statement of financial position.

(b) A right of set-off is a debtor's legal right, by contract or otherwise, to settle or otherwise eliminate all or a portion of an amount due to a creditor by applying against that amount all or a portion of an amount due from the creditor or a third party.

……...

C9 Some contracts and master netting agreements provide for automatic set-off of payments due to or from the parties if they occur on the same day and are in the same currency. Also, in a centrally cleared financial market with a central counterparty, the rules of the clearing house typically provide for automatic netting and cancellation of offsetting contracts. For such contractual arrangements, the entity's intention is considered to have been demonstrated at the date of entering into the contracts.

5. Paragraph 6 of the proposals requires an entity to offset a recognised financial asset and a recognised financial liability if they meet the proposed criteria. The ED defines offsetting as the presentation of one or more financial assets and

financial liabilities as a single net amount but, as noted above, defines the legal right of set-off as the right to eliminate all or a portion of an amount due to a creditor by applying against that amount all or a portion of an amount due from the creditor or a third party.[1]

6. As the ED does not specify the unit of account that offsetting should be applied to (and appears to suggest at least 2 possible units of account) many respondents have requested the boards to clarify the unit of account for offsetting (and whether the unit of account -being the contract –should be pierced when applying payment netting). They have also asked whether netting can be done on a portfolio basis (when payment netting is elected and/or a variation margin mechanism is present).

7. Respondents raised seven general ways that they thought the guidance could be applied:

   (a) to a portfolio of financial assets and financial liabilities (when each of the instruments comprise of a single cash flow (see Appendix B – Group 1)

   (b) to identifiable cash flows of financial assets and liabilities (a portion of a financial asset and a portion of a financial liability (Appendix B – Group 2);

   (c) to individual financial assets and financial liabilities (ie offsetting a portion of a financial asset against an entire financial liability and vice versa) (Appendix B – Groups 3)

   (d) to a portfolio of financial instruments (each comprising of multiple cash flows) with coinciding payment dates (Appendix B - Group 4)

   (e) to a portfolio of financial assets and financial liabilities when the instruments consist of multiple cash flows (without a variation margin system) and non coinciding payment dates

   (f) to a portfolio of financial assets and financial liabilities and the instruments consist of multiple cash flows (with a variation margin system) and non coinciding payment dates

   (g) to a portfolio of derivative financial assets and financial liabilities (under a master netting agreement)

8. Appendix B sets out some examples of scenarios reflecting the units of account stated in paragraph 7 (a) – (d).

[1] ED paragraph 10 (a) and (b)

9. The issue of unit of account is more complex in the context of financial instruments with multiple cash flows. This issue is not only pertinent in the derivatives market. It applies to all instruments with multiple cash flows eg plain vanilla debt instruments with a multi period principal amortising profile.

10. The staff would like to address item (f) in paragraph 7 (portfolio of financial assets and financial liabilities where the instruments consist of multiple non-coinciding cash flows, with variation margining) under the collateral section (section B), as the issue of unit of account and collateral are related when it comes to offsetting portfolios of financial assets and financial liabilities.

Offsetting a portfolio of financial assets and financial liabilities (when each of the instruments comprises of a single cash flow)

11. Under both US GAAP and IFRS an entity can offset a portfolio of non derivative instruments to the extent that there is an unconditional and legally enforceable right of set-off and intention to offset. Under US GAAP today, a portfolio of derivatives with the above characteristics (and executed under an MNA) will qualify for offset (in the absence of intent to settle net and differences in maturity or payment dates). An entity can offset a portfolio of derivative instruments under IFRS if all of the following conditions are met:

    (a) There is an enforceable right of offset in the form of payment netting

    (b) The instruments have the same payment/settlement dates

    (c) The instruments are denominated in the same currency

Offsetting identifiable cash flows of financial assets and liabilities (a portion of a financial asset and a portion of a financial liability)

12. Some industries (eg energy producers and traders) would prefer to apply offsetting criteria to identifiable cash flows to reflect the way they do business and achieve offsetting today. For other industries (eg banks), applying the offsetting criteria to individual identifiable cash flows (portions of financial assets and financial liabilities) within contracts would be impractical and burdensome and would not necessarily reflect the way they do business. Under

the ED, offsetting is mandatory if the offsetting criteria are met and hence it is important to clarify the unit of account to which offsetting criteria should be applied.

Offsetting individual financial assets and financial liabilities (ie a portion of a financial asset against an entire financial liability and vice versa)

13. Arguably, most respondents agree that offsetting can be done on this basis. Current offsetting guidance and practice under IFRS is consistent with this view. It is also expected that this conclusion is consistent with US GAAP offsetting guidance.

Offsetting a portfolio of derivative financial assets and financial liabilities (under a master netting agreement)

14. Others believe that the offsetting model should generally apply to instruments rather than underlying cash flows. However, for derivatives executed with the same counterparty under a master netting arrangement, they believe that the offsetting criteria should be applied to the fair value amounts of those derivatives. In their view, derivatives executed with the same counterparty under a legally enforceable master netting arrangement are legally viewed as one contract and should be considered as one unit of account for purposes of applying the offsetting criteria. They believe that offsetting is about rights and obligations of the parties involved and therefore should follow the legal framework. They believe that the collateral support annex to the master netting arrangement does address an entity's liquidity risk and solvency risk for the net open derivative position of a master netting arrangement.

15. Others argue that this view ignores maturity mismatch (among other key considerations) and the attendant settlement, liquidity and credit risks (see Appendix D). Moreover, they argue that the net amount, under this approach neither represent the credit nor cash flow exposure of an entity.

16. **Main discussion points:**

    (a) Is there a conceptual basis for separating out individual payments (cash flows) from contracts in applying the offsetting criteria?

(b) If yes, should the offsetting criteria be applied only if

(a) All payment dates on all of the instruments match? or

(b) all of the payment dates of one instrument match with some of the payment dates of the other instrument? or

(c) if all of the payment dates of one instrument match with some of the payment dates of the other instrument and offsetting the instruments does not result in both an asset and a liability position?

(d) Which of the methods in Appendix C will you recommend?

(c) If yes, should an exception for this be made based on the operational burden on preparers?

Section B: Collateral in derivative markets

Organisation of derivatives markets

17. The organisation of derivatives markets presently takes one of three forms:

(a) Bilateral OTC markets

(b) Bilateral OTC market with central clearing party (CCP)

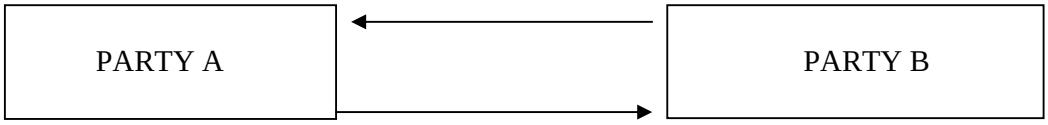
(c) Exchange based market

18. Under bilateral OTC markets, all functions related to a trade (trading, execution, confirmation, clearing, margining and settlement) are done on bilateral basis (ie between the parties to the trade).

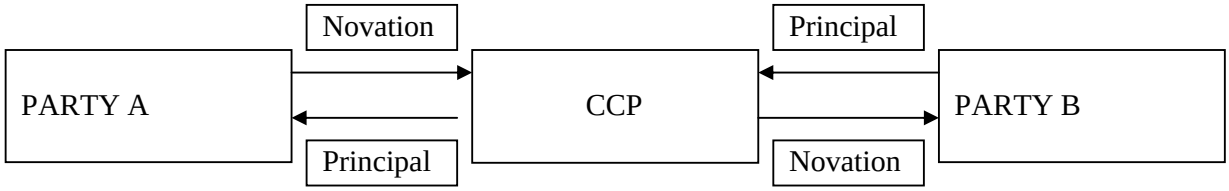
19. In an OTC market with a CCP, trading takes place on a bilateral basis. Once a trade agreement is reached and the counterparties decide to clear through a central mechanism, the agreement is transferred, or novated to the CCP: the single contract between the two initial counterparties is replaced by two new contracts between the CCP and each of the two parties. The CCP thus intervenes to assume the opposite position for the original transaction and becomes the counterparty for the original parties (ie it assumes the obligations and rights of both parties and agree to satisfy the terms of the contract). There may be various reasons for transferring to a central clearing party, the most

common being that it is more operational for settlement based on the volume of transactions. Some also argue that clearing via a central clearinghouse reduces an entity's credit and liquidity risk.

Original transaction



Post novation



20. An exchange based market ('open offer') results in two contracts with the CCP as soon as orders are matched in the relevant trading system. Thus the contracts arise directly between the participant and the CCP. The arrangement permits the CCP to intervene upon execution of a transaction between two clearing members on the exchange, in such a manner that a bilateral contractual relationship is never created between the trading clearing members and therefore no rights or obligations are ever created between them.

21. Conceptually, both Bilateral OTC market with clearing (CCP) and Exchange based market lead to the same ultimate economic result; the CCP is the counterparty and responsible for management of the contracts until their fulfillment in both cases.

22. The most common tool used to manage credit risk in derivative markets are right of offset and collateral.

Collateral – Bilateral OTC market with clearing (CCP) and Exchange based market

23. In trades with a CCP, the CCP will have rules covering what assets are allowed to serve as collateral, how much of a 'haircut' (ie discount to market price) should be given to specific assets in determining their value as collateral, how often margin calls should take place and how the collateral payments (due or receivable) should or will be made.

24. Different CCPs operate in similar but not identical manner. CCPs are structured differently when it comes to risk management. Practical issues such as payment and collateral timings, legal arrangements and the balance of risks intended to be covered by the different types of collateral are arranged differently and hence the overall risk management approach differ from CCP to CCP. However, the main objective is still the same (to reduce counterparty liquidity and credit risk).

25. The margin or collateral types required by CCPs include:

    (a) Initial margin

    (b) Variation margin

    (c) Intra-day margining

    (d) Participant's contribution to the default fund

Initial margin

26. Initial Margin (IM) is required to be posted at the inception of a trade or a trading relationship and it is designed to ensure that the CCP has sufficient funds to cover potential losses in a default in normal market conditions (for example, price risk or failure by the clearing member to provide variation margin). The amount of initial margin is usually determined by the potential volatility of changes in the market value of that type of derivative using a variety of models (for example, historical simulation based on value at risk or VaR). Initial margin is not tied to any specific trade with the clearinghouse but looks at the clearinghouse's total exposure with respect to the counterparty and their trades with the clearing house.

27. Cash, bank guarantees and eligible securities are generally accepted as initial margin or collateral.

28. All clearing houses require contract holders to post collateral to cover potential future exposures. Initial margins are usually adjusted at the end of each business day by the CCP, and then any changes are collected the next business day. The level of initial margin is back-tested and reviewed regularly.

Variation margin

29. In addition to the initial margin, CCPs rules provide for a variation margin (to cover current exposure). CCPs typically mark to market participants' positions at the end of each day, and calculate gains and losses accrued since the last mark to market determination (virtually on a daily basis). Therefore the variation margin consists of funds to cover losses (profits) on open positions.

30. Margins may be calculated on a gross or net basis. Under gross margining members are required to deposit margin sufficient to cover their gross positions. Under net margining the long and short positions are netted against each other and the margin required to be posted is based on the net positions. Most CCPs use a net margining system.

31. Two different types of systems for variation margining are commonly used:

    (a) In a cash futures style margining system, current exposures are returned to zero each day by marking positions to market, by collecting losses from clearing members whose portfolios have a negative market value, and by paying out gains to clearing members whose portfolios have a positive market value. In a non cash futures margining system, positions are marked to market each day and losses are paid to the CCP but the CCP does not make payments to clearing members in profit (ie there is no pay through of gains), that is current exposures cumulate and are collateralised. Depending on the legal structure or jurisdiction, the two types of futures margining systems may qualify as legal settlement (or partial settlement) of the contracts.

    (b) Options margining systems differ as to whether the premium is paid upfront or paid over the life of the option. In an upfront system, the purchaser of the option pays the premium for the

option at inception of the contract. The seller of the option posts collateral to cover the potential exposure from the position (initial margin). The position is then marked to market daily, and the current exposure is collateralised. On the other hand, in a premium paid over the life of the contract system, both the purchaser and the seller of the option contract post collateral to protect the clearing house against potential future credit exposures. Both sides of the contract are then marked to market daily and cash payments are made to reset the current exposure to zero. The premium is paid to the seller of the contract over time in the form of the daily variation margin payments through the life of the contract and on final close-out.

32. Even where there is a pay through of gains and losses, the actual procedure for settling daily gains and losses may differ to some extent between CCPs. Some directly adjust participants' margin account balances to reflect the gains and losses on participants' positions. If the funds in a members' margin account fall below a specified level the member receives a margin call. This instructs the member to increase the funds in its margin account back to the level of initial margin within a specified period.

33. Variation margins are usually calculated at the end of each business day by the CCP, and then collected the next business day.

Intra day margin

34. Usually the CCP calls for margin on an end of day basis. The calculation of the required amount of margin is based on the end of day price of the position (may be on gross or net position) of the clearing member. The CCP may however call for an intra day margin to mitigate intra day risks. There are three types of intra day margin, namely, a routine intraday margin call (usually based on market prices and positions since the end of the last day or combined with update prices), a non-routine call that automatically occurs if market prices change sufficiently and a selective margin call, that requires the deposit of additional

collateral by one or more clearing members, whose variation losses or initial margin deficits have reached a certain threshold.

35. A CCP may choose to pay out any intraday profits to clearing members, net the intraday profits against any increases in end of day margin (thus reducing the next margin call) or pay part of the profits to the clearing member and keep the remaining as an additional protection.

36. With the likely exception of initial margin, all margin is likely to be required in cash due to the rapidly changing derivatives exposure and therefore the high velocity of value required through margin accounts. By contrast, initial margin is typically delivered either in cash or in the form of securities that have high credit quality or can be sold easily.

Defaulter's own contribution to the default fund

37. In many instances, each participant is required by the CCP rules to maintain a deposit (ie contribution to a default fund) to be used solely to cover any losses that might be incurred by the CCP as a result of the failure of any participant to perform its obligations. This amount is typically used further down in the waterfall (ie if variation margin or initial margin is not sufficient to cover such losses). Some clearinghouses that were counterparties to Lehman indicated that the initial margin and the variation margin amounts sufficiently covered their outstanding positions on Lehman's default.

Collateral - Bilateral OTC market

38. In the OTC market, collateral arrangements between parties are negotiated in a separate document (from the transaction confirmation), a credit support annex (CSA) or deed. Parties often request upfront collateral ('independent amount') from their clients, which is usually held throughout the life of the group of derivatives, as a security against the credit risk of that client. This is analogous to the initial margin required by CCPs. Following the Lehman bankruptcy, many counterparties found themselves in the position of unsecured creditors to Lehman, and were forced to make claims on the independent amount of

collateral that they had posted to Lehman. Market participants are currently considering methods to ensure that their independent amount collateral remains remote from the bankruptcy of their counterparties.

39. In addition to the independent amount, the CSA or similar arrangements may call for variation margin payments between the parties. Generally, the CSA provides a variation amount based on:

    (a) The secured party's exposure; plus

    (b) The aggregate of all independent amounts applicable to the party that has delivered collateral, if any; minus

    (c) All independent amounts applicable to the party that is holding collateral, if any; minus

    (d) The threshold of the party that has delivered collateral

40. Exposure is typically deemed to be the mid-market mark to market value of transactions in the portfolio between the parties. The threshold amount is a defined fixed or variable amount that changes with the credit rating of the party concerned. The threshold represents the amount of credit risk that the party is willing to bear before requiring collateral from a counterparty.

41. Generally, offsetting the variation margin against either the asset or liability position will meet the principles in the ED if:

    (a) the party making the variation payment has no right to insist on the return of the variation margin paid and

    (b) the variation margin forms part of the settlement of the underlying contracts.

42. In addition, some bilateral OTC contracts would provide for intraday margin calls. Hence similar margining tools that are employed by CCPs may be present in some of the OTC bilateral arrangements but typically are a variation of the CCP structure.

43. Appendix E provides a summary of the various margin or collateral types explained above.

Analysis

44. There are some significant differences between the OTC bilateral market and some of the CCP structures –

    (a) It is estimated that about a third of bilateral OTC contracts are not collateralised whereas collateralisation is a key feature of all CCPs.

    (b) The legal rights of the parties in a bilateral OTC contract may differ significantly from the rights of parties in a CCP arrangement, in particular, whether the party making variation payments has the right to insist on the return of the variation margin paid (if the obligations under the associated financial instruments are met).

    (c) The payments under bilateral OTC contracts are often only required after an initial trade size is reached.

    (d) Some CCPs combine variation margin payments and the settlement of the underlying contracts in a single process whereas in all OTC bilateral contracts the settlement of variation margin and the underlying contracts are kept separate and the variation margin does not form part of the settlement of the underlying contracts. This is also true for some CCPs.

    (e) Weekly and monthly valuation and exchange of collateral is very common in the bilateral OTC market whereas on almost all CCPs the collateral cycle is daily.

    (f) On most CCPs, variation margin can only be settled in cash whereas OTC bilateral contracts allow for variation margin to be settled in non-cash form.

45. Appendix A provides a summary of the margining processes on selected CCPs and in the bilateral OTC market, current accounting for derivative trades through such CCPs and on bilateral OTC market (under both US GAAP and IFRS) and the key differences in the applicable margining systems.

Section C: Proposed guidance - Collateral and Margin

ED Proposals

9 An entity shall not offset, in the statement of financial position, assets pledged as collateral (or the right to reclaim the collateral) or the obligation to return collateral obtained and the associated financial assets and financial liabilities.

C14 Many financial instruments, such as interest rate swap contracts, futures contracts and exchange traded written options, require margin accounts. Margin accounts are a form of collateral for the counterparty or clearing house and may take the form of cash, securities or other specified assets (typically liquid assets). Margin accounts are assets or liabilities that are accounted for separately. Similarly, if an entity sells collateral pledged to it and thus recognises an obligation to return the collateral sold, that obligation is a separate liability that is accounted for separately. An entity shall not offset in the statement of financial position recognised financial assets and financial liabilities with assets pledged as collateral or the right to reclaim collateral pledged or the obligation to return collateral sold.

BC62 The boards believe that the collateral for a debt is irrelevant to the question of whether assets and liabilities should be presented separately or offset in the statement of financial position. The credit risk that an entity faces in relation to settling a liability may be negligible or non-existent because of the collateral for the debt, but this is not a sufficient reason to require offsetting in the statement of financial position. The boards note that users are interested in information about an entity's performance and financial position rather than simply credit risk.

BC63 The boards concluded that offsetting the payables and receivables related to cash collateral would make it difficult to analyse the relationship between the carrying amount of financial instruments and the associated gains or losses reported in the statement of comprehensive income. They therefore concluded that cash and other financial instrument collateral should not be offset against recognised financial assets and financial liabilities.

46. In the ED, the boards concluded that offsetting a financial asset and a financial liability in the statement of financial position is consistent with the objective of financial reporting, is appropriate and reflects the financial position of an entity if, :

(a) on the basis of the rights and obligations associated with the financial asset and financial liability, the entity has, in effect, a right to or an obligation

for only the net amount (ie the entity has, in effect, a single net financial asset or financial liability) and

(b) the amount, resulting from offsetting the asset and liability, reflects an entity's expected future cash flows from settling two or more separate financial instruments.

47. The boards concluded that the net amount represents the entity's right or obligation and the amount, resulting from offsetting the asset and liability, reflects an entity's expected future cash flows from settling two or more separate financial instruments, if (a) the entity has the ability to insist on a net settlement or enforce net settlement in all situations (ie the exercise of that right is not contingent on a future event), (b) that ability is assured, and (c) the entity intends to receive or pay a single net amount, or to settle simultaneously[2].

Analysis

48. Main discussion points:

    (a) Are there circumstances when offsetting 'collateral' and financial assets or financial liabilities will be consistent with the offsetting principle in the ED?

    (b) Are there other circumstances when offsetting 'collateral' and related financial assets or financial liabilities will not be consistent with the offsetting principle but you believe offsetting should be required? If so, what are those circumstances and why is offsetting appropriate in those circumstances?

49. The CCP or the party (in an bilateral OTC market) holding the initial margin (or independent amount) only has right to keep or to use the initial margin (or independent amount) to offset the counterparty's obligations if the counterparty defaults or it is unable to perform its obligations. Hence this type of margin or collateral is no different from the general type of collateral eg a mortgage over a real estate property. Under the ED, this would be seen as a conditional right and thus will not meet the offsetting principle.

[2] Paragraphs BC17 and BC 18

50. Whether variation margin or collateral will meet the principles in the ED, will depend on:

    (a) the legal nature of the collateral arrangement (eg whether collateral paid or received is or can be construed as partial settlement of the amounts due under the contract(s) and whether the collateral provider has legal right to demand return of collateral posted)

    (b) the rights of the parties (eg whether the right to offset the collateral and the open positions is conditioned on a future event)

    (c) whether the variation margin forms or will form part of the settlement of the underlying contracts

    (d) whether there is a single process for both the settlement of the underlying contracts and the payment of variation margin or they are conducted in different process and if so whether there is any time lag

51. Generally, offsetting the variation margin against either the asset or liability position will meet the principles in the ED if:

    (a) the party making the variation payment has no right to insist on the return of the variation margin paid and

    (b) the variation margin forms or will form part of the settlement of the underlying contracts.

52. It is very common under a bilateral OTC contract (with the standard CSA) that once there has been proper performance of the underlying derivative transactions, the party who has paid the variation margin is entitled to recover an amount of collateral of like kind and like value from the secured party.

53. Whether an intra day margin or collateral will meet the principles in the ED, will depend on the factors set out in paragraph 50.

54. A CCP only has right to keep or to use a participant's contribution to the default fund to offset the counterparty's obligations if the counterparty defaults or is unable to perform its obligations. Hence this type of margin or collateral is no different from the general type of collateral eg a mortgage over a real estate

property. Under the ED, this would be seen as a conditional right and thus will not meet the offsetting principle.

Offsetting of portfolio of financial assets and liabilities (with variation margin or collateral) – Paragraph 7(f)

55. Appendix D sets out some basic examples of portfolios that the boards would need to consider in developing guidance for offsetting. The staff would like the boards' view on those cases.

56. Some contracts and master netting agreements provide for automatic set-off of payments due to or from the parties if they occur on the same day and are in the same currency (ie payment netting). The analysis below and in the appendices assume the presence of a payment netting scheme.

57. Payment netting is a significant transaction cost reducing feature that eliminates the need for the individual collection and processing of offsetting payments. It is also an important practice for addressing liquidity and credit risks (as it significantly reduces the probability of not receiving payment due to settlement risk).

58. Payment netting right of offset, however, may not be applicable or relevant when counterparty payments are denominated in different currencies or occur in different time zones (except where a simultaneous settlement by way of payment vs payment scheme is present or DVP agent arrangement or escrow provisions). Hence payment netting is typically restricted to payments due to or from the parties if they occur on the same day and are in the same currency.

59. As noted in paragraph 44, weekly and monthly valuation and exchange of collateral is very common in the bilateral market whereas on most CCPs the collateral cycle is typically daily. Collateral is only an effective risk mitigating tool if counterparty exposure is calculated frequently and variation margin is exchanged in a timely manner.

60. Some CCPs combine variation margin payments and the settlement of the underlying contracts in a single process whereas in all OTC bilateral contracts the settlement of variation margin and the underlying contracts are kept separate

and the variation margin does not form part of the settlement of the underlying contracts. This is also true for some CCPs.

61. The issues raised in paragraphs 58 - 60 mean that where variation margin is handled in other than a single process (assuming payment netting is elected or required), parties would be exposed to at least 1 day settlement risk (ignoring changes in fair value arising from changes in the underlying and interest rates). The examples in Appendix D illustrate the difference between single and dual settlement schemes and their impact on risk exposure.

62. A non-single settlement process requires the payment of one amount (settlement of underlying contracts) and the receipt of another (the variation margin) a day (or more) later. The risk to an entity is that it will pay out on the underlying transactions and not receive its variation margin in return. Settlement risk arises when the timing of payments or deliveries by counterparties to each other are not synchronised. This is sometimes called Herstatt risk. This issue became more prominent after the Herstatt incident in 1974.

63. In this case, a relatively small German bank, Bankhaus Herstatt, which had a large trading book of foreign exchange transactions, was closed by its banking supervisor at the end of the German banking day (approximately 10.30 am in New York). Unfortunately, a number of institutions had made payments in Deutsche Marks to Herstatt on foreign exchange transactions. These institutions expected the dollar leg of these transactions to settle in New York during the New York banking day. However, Herstatt's US correspondent bank was stopped from making payments in New York during the New York upon the closure of the bank and the non defaulting institutions were forced to scramble to replace what had been delivered. So the New York banks lost the full value of their Deutsche Mark payments and never received the corresponding dollar inflows. The risk of making payment but not receiving countervalue has since been known as Herstatt risk (BIS – 1996). There have since been other incidents – Drexel in 1991, the collapse of BCCI in 1991, the collapse of Barings in 1995 and Lehman Brothers in 2007.

64. This incident has forced parties to recognise the perils of having to settle transactions through different systems or in different jurisdictions and different

time zones. The amount at risk during the settlement period (lag) could exceed a bank's capital, in many cases this can easily exceed several hundred million US dollars. Because this risk may involve the full value of transactions falling due, substantial credit losses as well as substantial liquidity pressures may result from the default of a counterparty or the failure to complete the settlement of the variation margin.

65. The Herstatt incident led to the creation of CLS bank, which provides a perfect example of simultaneous settlement (at the same moment) of foreign exchange transactions using payment vs payment structure. The Lehman Brothers failure demonstrated the risk reducing effects of simultaneous settlement through the CLS bank (for forex products where the CLS Bank was acting as delivery vs payment agent).

66. A single process (as demonstrated in Appendix D) for variation margin and settlement of the underlying contracts ensures the variation margin required after settlement of the underlying contracts is netted against the settlement flows on the underlying contracts and hence it eliminates the loss of principal, settlement risk and the consequent credit and liquidity problems.

67. However, in both systems, the parties would be exposed to fair value changes as variation margin is calculated and paid with at least a day lag. Thus the net amount of the portfolio (ignoring the Herstatt risk in non-single process), would be the last change in fair value that has not yet been settled by way of variation margin (see Appendix D).

68. Main discussion point:

    (a) When does applying the offsetting criteria to a portfolio of financial instruments meet the core principle of offsetting (ie the net amount represents the entity's right or obligation and the amount, resulting from offsetting the asset and liability, reflects an entity's expected future cash flows from settling two or more separate financial instruments)? -

        (i) Presence of an unconditional right of offset (eg payment netting clause)

        (ii) Presence of a variation margin mechanism

(iii) Frequency of variation margin posting or calls (daily?)

(iv) The legal nature of the collateral arrangement (eg whether collateral paid or received is to be construed as partial settlement of the amounts due under the contract(s) or whether the collateral provider has legal right to demand return of collateral posted)

(v) The rights of the parties (eg whether the right to offset the collateral is conditioned on a future event)

(vi) A single payment process (ie settlement of interim and final amounts combined with variation margin flows) vs separate process for settlement and variation margin