

# **DISCUSSION PAPER ON NETTING BY DEPOSIT INSURANCE SCHEME**

## **Introduction**

On 24 April 2001, the Executive Council approved in principle the establishment of a deposit insurance scheme (“DIS”) in Hong Kong and asked the Hong Kong Monetary Authority (“HKMA”) to consider the detailed design features of the scheme.

2. There remain a number of important technical issues that require further detailed consideration. One of these is to decide whether or not to net off a depositor’s liabilities to a failed bank in determining deposit insurance payouts. The purpose of this paper is to discuss, and to seek the views on, the appropriate netting rules that should be followed by the DIS in determining a depositor’s entitlement to insurance compensation. After receipt of these comments, a set of final proposals on this issue, and on other aspects of the DIS, will be circulated for further consultation.

## **Background**

3. Netting for deposit insurance purposes refers to the process whereby the DIS sets off the claim of a depositor on a failed bank against his liabilities owing to the bank in determining his entitlement to insurance compensation. The decision whether to net or not, and if so to what extent, is an important consideration which affects the payout to depositors and ultimately the cost of the DIS.

4. In theory, there is a range of options for netting off a depositor’s liabilities in determining payout. Each differs in the extent of set-off. At one end of the spectrum, the DIS can net off all the depositors’ liabilities against their deposits (i.e. full netting). This would be in line with the netting rules followed by a liquidator under the Bankruptcy Ordinance<sup>1</sup>. At the other end of the spectrum, the DIS can apply no netting at all and simply pay out depositors on a gross basis. In between these two extremes, some form of partial netting can be applied, whereby the DIS only sets off some part of depositors’ liabilities against their deposits.

5. The discussion in this paper will focus on two main options, namely partial netting and full netting. These options are more commonly adopted by DISs in other countries. The option of making payouts on a gross basis would seem to be too generous as it does not net off even a depositor’s

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<sup>1</sup> Section 35 of the Bankruptcy Ordinance provides that mutual credits, mutual debts or other mutual dealings between a bankrupt and its creditors or debtors shall be set off against each other in a liquidation.

non-performing loans. Such an option would be the least desirable among the three and is therefore not considered further.

## **Partial Netting**

6. This is the approach recommended by the consultant who undertook the study on enhancing deposit protection in 2000. In particular, the Consultant proposed that the DIS should only set off the contractually due and past due liabilities of a depositor against his deposit in determining payout. The items to be netted off would include overdrafts, arrears on personal loans, currently due obligations under guarantees given by the depositor and all contractually past due sums. Under the Consultant's proposal, future obligations of a depositor would not be accelerated as this would reduce the value of the protection offered.

7. The reason why past due items are netted off is obvious as these are indicators that the customer might have difficulties in servicing the loans. As pointed out in a recent occasional paper of the International Monetary Fund ("IMF")<sup>2</sup>, it would be unfair to other depositors if the holder of a delinquent loan, especially one that has contributed to the failure of the bank, were to benefit from insurance coverage. For loans that are repayable on demand such as overdrafts, the Consultant considered that these are essentially money in the same right and therefore should be netted as well.

8. If partial netting were to be adopted, it would be necessary to consider the extent to which the contractually due and past due loans should be set off. For loans that are repayable on demand but not those with a contractual maturity date in the future such as overdrafts, we propose that the contractually due sums should be netted. For past due liabilities, the earlier Consultation Paper published by the HKMA on Deposit Insurance assumed that only the overdue instalments would be netted. However, this may not be a prudent assumption as a borrower in default would probably be unable to continue to service his loan(s). If the DIS were to set off the overdue instalments only, this could be prejudicial to the interests of other creditors. It is therefore proposed that the whole indebtedness<sup>3</sup> of such a depositor to the bank should be set off. This should apply where the arrears have been longer than 60 days (to make allowances for cases where the borrower forgets to make payments or is temporarily out of town). For arrears that do not meet this threshold, it is proposed that only the instalment amounts overdue should be netted.

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<sup>2</sup> Occasional Paper 197, *Deposit Insurance – Actual and Good Practices*, by Gillian G.H. Garcia (2000).

<sup>3</sup> This would include the total outstanding balance of all his loans with the bank and not just the loan in arrears. Outstanding balance includes principal, accrued interest and amount in arrears.

9. Some examples of how partial netting would work in practice are shown in Table 1 below<sup>4</sup>.

**Table 1 – Payout to depositors under partial netting**

Depositors	Deposits (\$)	Borrowings <sup>5</sup> (\$)		Payout by DIS after netting
A	100,000	Overdraft	40,000	60,000
B	100,000	Personal loan (current)	40,000	100,000
C	100,000	Mortgage loan (current)	2,000,000	100,000
D	1,000,000	Personal loan (current)	100,000	100,000
E	100,000	Mortgage loan (overdue for <u>less than</u> 60 days o/w \$30,000 is in arrears) Personal loan (current) Total	2,000,000 <u>40,000</u> 2,040,000	70,000  (only the amount in arrears is netted)
F	100,000	Mortgage loan (overdue for <u>more than</u> 60 days) Personal loan (current) Total	2,000,000 <u>40,000</u> 2,040,000	0  (the whole indebtedness is netted)

*Arguments for*

10. One argument that has been put forward for adopting a partial netting approach is that the DIS would not have to work out the fully netted positions of individual depositors, which could be a time-consuming exercise particularly where the computer systems of the failed bank are not sophisticated enough. A DIS which applies limited netting in determining insurance compensation might therefore be able to pay out depositors more expeditiously. However, this does not seem to be a particularly convincing argument in present banking environment. In practice, banks can be required to put in place adequate database systems so as to facilitate the DIS to make early payments to depositors. There might also be a concern that under a partial netting approach the DIS would have to distinguish between those liabilities of depositors which are contractually due or past due and those which are not. Hence, a partial netting approach might actually be no quicker than full netting.

11. A stronger argument for adopting a partial netting approach is that it could better help to mitigate the cash flow problems encountered by depositors caused by the bank failure. Unlike a full netting scheme, future

<sup>4</sup> In the examples, as well as throughout the discussion in this paper, we assume that the coverage cap of the DIS would be \$100,000. This is the preliminary view of the Government on the key design features of the DIS.

<sup>5</sup> Including principal, accrued interest and amount in arrears where appropriate.

obligations of a depositor would not be accelerated. Accordingly there would be less disruption to the cash flow of depositors, particularly those who depend on deposits for meeting their daily needs.

### *Arguments against*

12. However, adopting a partial netting approach for the DIS has important drawbacks. The most notable disadvantage is that a partial netting scheme could be more costly to operate. Since the netting rules adopted by the DIS would be different from those applied by the liquidator, the DIS might not be able to recover from the liquidator the full amount that it had paid out to depositors after it had stepped into the shoes of the insured depositors. This is because it would then be subject to the more stringent set-off rules applied by the liquidator in determining the priority payments.

13. At present, section 265 of the Companies Ordinance provides that a depositor is entitled to receive priority in the repayment of his aggregate deposits, up to a maximum of HK\$100,000, in the winding up of a bank. By paying out the depositors of the failed bank, it is assumed that the DIS would be able to take over the depositors' rights to their deposits including their preferential status under the Companies Ordinance<sup>6</sup>. The DIS could then recover the payout to depositors as a creditor in the liquidation of the failed bank<sup>7</sup>.

14. In accordance with section 264 of the Companies Ordinance<sup>8</sup> and section 35 of the Bankruptcy Ordinance, any priority payments made to depositors would be calculated on a fully netted basis. Therefore, if the DIS applies partial netting in determining insurance compensation, it may in some cases pay out an amount larger than the depositor's entitlement to priority payments. This would raise the question whether the DIS could recover the full amount of excess payment directly from the depositors. The DIS might also need to incur additional administrative costs to recover the debts. The DIS would therefore be exposed to the risk of shortfall in its recoveries.

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<sup>6</sup> At present, it is uncertain whether the DIS would itself be regarded as a single depositor under section 265 of the Companies Ordinance and therefore would not be eligible to obtain preference in respect of the aggregate amount that it paid out to depositors. It would be necessary to clarify this by means of a legislative amendment to the Companies Ordinance.

<sup>7</sup> In this paper, we assume that the failed bank would be liquidated. This is necessary in order to show the possible impact on the DIS if it adopts a set of netting rules inconsistent with the insolvency set-off rules. This is also a prudent assumption because liquidation of the failed bank would normally be the worst case scenario for the DIS. In cases where there are alternative resolution methods (e.g. the bank is rescued by a white knight), the possible impact on a limited netting scheme could be different and would depend on individual circumstances (e.g. the negotiation between the white knight and the DIS).

<sup>8</sup> Section 264 of the Companies Ordinance, in essence, provides that the rules under the law of bankruptcy shall prevail and be observed with regard to the respective rights of secured and unsecured creditors in the winding up of an insolvent company.

15. Table 2 illustrates how this additional shortfall risk would arise using the same examples in Table 1. In respect of depositor B, a partial netting scheme would have paid out \$100,000. However, under the present insolvency regime, the DIS, by stepping into the shoes of depositor B, would only receive a priority payment of \$60,000. Since the liquidator would regard depositor B as a creditor with a net claim of \$60,000 after full netting, he would only pay this amount to the DIS, and the DIS would have to claw back the shortfall of \$40,000 directly from depositor B. Different degree of shortfall would also arise in the case of depositors C and E, but no shortfall would arise in the case of depositors A, D and F.

**Table 2 – Exposure of a partial netting scheme to shortfall risk**

<b>Depositor</b>	<b>Deposits (\$)</b>	<b>Borrowings (\$)</b>	<b>Payout by DIS after netting</b>	<b>Entitlement to priority payments</b>	<b>DIS' exposure to shortfall risk</b>
A	100,000	40,000	60,000	60,000	0
B	100,000	40,000	100,000	60,000	40,000
C	100,000	2,000,000	100,000	0	100,000
D	1,000,000	100,000	100,000	100,000 <sup>9</sup>	0
E	100,000	2,040,000	70,000	0	70,000
F	100,000	2,040,000	0	0	0

16. It can thus be seen that the actual amount of additional costs that the DIS would incur would vary from case to case and would ultimately depend on the depositor profile of the failed bank and the probability of default by insured depositors. Although the results of the deposit survey conducted for the Consultancy Study showed that the amount of covered deposits on a fully netted basis was smaller than the amount on a gross basis by only 11%, this situation may change over time as the banking sector continues to evolve<sup>10</sup>.

17. In short, while a partial netting scheme might be more beneficial to depositors than full netting, it would probably result in higher costs for the DIS under the present insolvency regime in Hong Kong.

<sup>9</sup> This is because netting by the liquidator takes place against the total amount of deposits rather than the priority claim entitlement of \$100,000.

<sup>10</sup> For example, banks are increasingly focused on cross-selling their products to existing customers. Some banks have also introduced fee policies which would determine the level of fees charged on a customer based on his total relationship balance with the bank. These developments may encourage customers to consolidate their banking activities in one institution.

*Possible solutions to address the cost issue*

18. There are various possible solutions to address the cost issue associated with a partial netting scheme. These would involve changes to the current insolvency legislation. One option would be to confer a separate priority status on the DIS under the Companies Ordinance in respect of any amounts paid out by it. Another would be to create a separate set of netting rules for the winding up of banks. Finally, the priority claim provisions in the Companies Ordinance could be changed so that priority payments to depositors (whether insured or not) would be calculated on a partial rather than full netting basis. The third option might be less intrusive to the insolvency regime compared with the first two as it only affects the priority claim provisions relating to bank depositors.

19. While all these solutions would involve different changes to the insolvency legislation, the ultimate objective is the same, which is to ensure that the DIS would acquire preferential status in respect of the *whole* amount that it has paid out to depositors. In other words, these proposed changes would effectively alter the sequence of distribution of the proceeds from the liquidation of a failed bank in favour of the DIS. Since the amount of assets of a failed bank available for appropriation to creditors is a fixed sum, changes to the winding up process in favour of the DIS would mean that the interests of other creditors (including uninsured depositors) might be affected.

20. To illustrate more clearly how this would work out in practice, let us assume that the Companies Ordinance was amended such that only currently due or past due liabilities of depositors would be deducted from their deposits in determining their entitlement to priority claims (i.e. the same netting rules proposed in paragraph 8). The netting rules followed by the liquidator in determining priority payments and the DIS in determining insurance payouts would then be exactly the same. Quoting the above examples again, depositors B, C and E in Table 2 would be entitled to a priority payment of \$100,000, \$100,000 and \$70,000 respectively (see Table 3). By taking over the rights of these depositors, the DIS would acquire priority status in respect of the whole amount that it has paid out to them and thus would be entitled to receive dividends from the liquidator in priority to ordinary creditors. The liquidator would then be obliged to recover the debts from these depositors, which would otherwise be set off at the commencement of the winding up process under the current rules. If such depositors were to default, there would be fewer assets available to pay off other creditors. Changes to the legislation of the type envisaged in paragraph 18 could therefore reduce the recovery rate for such creditors.

**Table 3 – Exposure of a partial netting scheme to shortfall risk if priority status under Companies Ordinance were also determined on a partial netting basis**

<b>Depositor</b>	<b>Deposits (\$)</b>	<b>Borrowings (\$)</b>	<b>Payout by DIS after netting</b>	<b>Entitlement to priority payments</b>	<b>DIS' exposure to shortfall risk</b>
B	100,000	40,000	100,000	100,000	0
C	100,000	2,000,000	100,000	100,000	0
E	100,000	2,040,000	70,000	70,000	0

### **Full Netting**

21. As noted earlier, an alternative approach which the DIS could adopt would be to follow precisely the netting rules of the liquidator in determining a depositor's entitlement to insurance compensation. A depositor's liabilities would be completely set off against his deposits before his insurance payout was determined. This would uphold an important principle of insolvency law that in final settlement in a commercial relationship, the amounts paid should reflect the overall position between the parties rather than taking account of only one side of the contractual relationship. Moreover, as the netting rules adopted by the DIS and those followed by the liquidator would be the same, the risk of the DIS being exposed to an insurance loss would be reduced. Finally, since the gross amount paid out by the DIS would be smaller than if a partial netting approach was adopted, the cost of funding the insurance payout would be reduced (even though the difference may not be significant).

22. However, the above arguments for full netting must be weighed against the impact that netting could have on the speed of payout and the cash flow of depositors, which are the key success factors for a DIS.

23. On the speed of payout, as noted above, it is not clear that there would be much of a difference between full and partial netting. To the extent that the former would take more time, the concern may be addressed by introducing a requirement on banks to maintain adequate database systems which can readily enable depositors' liabilities and claims to be matched<sup>11</sup>. This would enable the DIS to pay out depositors within a reasonably short period. To ensure compliance with this requirement, the DIS (or the HKMA on its behalf) can also carry out regular examinations of the banks to check whether their database systems adhere to the requirements specified by the DIS. This should help ensure that payouts to depositors would not be unduly delayed.

<sup>11</sup> This requirement would also be useful to a partial netting scheme. It should therefore be introduced regardless of whether the future DIS adopts a partial or full netting approach.

24. As regards the second point in paragraph 22, netting on a gross or partial basis is to be preferred in terms of meeting depositors' immediate cash flow needs. However, as mentioned earlier, the deposit survey conducted for the Consultancy Study indicated that there was a relatively small difference between deposit balances on a gross basis and those on a net basis. This may suggest that depositors are not significant borrowers from the banks with which they place money. Moreover, whether a depositor obtains "repayment" through the DIS or through having his deposit set off against his borrowing from the bank, he still obtains repayment of 100% of his deposit (in the case of the DIS, up to the amount covered by the scheme). Thus, while limited netting by the DIS may be desirable for cash flow reasons, it is not clear that it is absolutely essential or that it would justify changes to the current insolvency regime. This is the view of a number of insolvency practitioners with whom the HKMA has discussed the issue.

### **International Guidance and Practices in Other Countries**

25. The above analysis shows that the arguments for and against a particular netting approach for a DIS are finely balanced. We have therefore tried to examine how other jurisdictions and relevant international bodies tackle this issue. The result of this survey, which is summarised below and in the Annex, shows that there is not a clear body of international opinion in favour of a partial or full netting approach for a DIS.

26. As far as the international bodies are concerned, we have examined the recent guidance given by the IMF and the Working Group on Deposit Insurance established by the Financial Stability Forum ("FSF")<sup>12</sup>. While the IMF seems to be more inclined towards a partial netting approach<sup>13</sup>, the FSF Working Group appears to be more neutral on this issue. In its final report that was released recently, the Working Group points out that some countries emphasise the importance of set-off while others believe that it can contribute to unequal treatment. If set-off is allowed, a number of issues should be considered, including whether set-off should apply to all loans or only when the loan is due or in default. Set-off can also be influenced by the priority of claims in a bank failure. These issues generally involve trade-offs among public policy objectives and *require country-specific solutions*.

27. Indeed, the actual practices on netting vary from country to country. Whereas the schemes in the U.S., Canada, Japan and the Philippines

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<sup>12</sup> FSF is a forum formed by the G7 countries to promote international financial stability.

<sup>13</sup> A recent Occasional Paper issued by the IMF recommends that the insured parts of deposits be netted against claims that have already fallen due or are delinquent.

do not normally set off all the loans of depositors against their claims (i.e. partial netting), the schemes (or the planned schemes) in the U.K., South Korea, China, Indonesia and Thailand apply (or intend to apply) full netting in determining payout to depositors (see **Annex**). The fact that the former schemes are able to adopt a partial netting approach may be due to various reasons. But one main reason seems to be that unlike Hong Kong there is not an explicit requirement that mutual debts and mutual credits should be fully set off against each other upon the liquidation of a failed company (e.g. the U.S. and Canada)<sup>14</sup>. This means that the partial netting rules followed by the schemes in these countries are not inconsistent with their insolvency regime<sup>15</sup>.

### **Practices of Other Compensation Schemes in Hong Kong**

28. We have also looked at the practices of other compensation schemes in Hong Kong. These include the Unified Exchange Compensation Fund (“UECF”) operated by the Securities and Futures Commission in accordance with the Securities Ordinance (Cap. 333) and the Protection of Wages on Insolvency Fund (“PWIF”) established under the Protection of Wages on Insolvency Ordinance (Cap. 380). These schemes calculate payments to eligible claimants based on their net positions with the failed company (i.e. a securities broker in the case of the UECF and an ordinary company in the case of the PWIF). In other words, they follow the insolvency set-off rules in determining compensation payments.

### **Conclusions**

29. The choice of netting rules is an important design feature of a DIS. It not only affects the amount of payout to depositors and thus the cost of the DIS, but also its effectiveness in achieving the objectives to protect small depositors and promote systemic stability.

30. As shown in the above discussion, a partial netting scheme might appear to be more effective than a full netting scheme in terms of achieving the objectives of a DIS as the former protects the cash flow as well as the beneficial interest in the deposits concerned. This difference in effectiveness is however difficult to measure. In any case, it is fair to say that even a DIS

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<sup>14</sup> *English and International Set-off* by Philip R. Wood, 1989.

<sup>15</sup> In practice, the schemes in the U.S, Japan and the Philippines will offer a depositor with the option of whether to set off his loans against his deposits or not. Under this approach, it is conceivable that the majority of those depositors with deposits in excess of the coverage limit would opt for full netting so as to maximise the recovery of their deposits. Such a design feature is however not possible in Hong Kong under the present insolvency regime which requires mandatory set-off of all mutual debts and mutual credits. If such an approach were to be pursued in Hong Kong, this would require changes to the insolvency legislation such that in respect of bank liquidations, an option would be given to depositors whether or not to set off their loans against deposits. This would be an even more radical change compared with the options set out in paragraph 18 of the paper.

adopting a full netting approach is much better than the existing priority scheme from the point of view of depositors as the former guarantees payment of the insured deposits whereas the latter does not. There is also no lack of precedents around the world for adopting a full netting approach. Moreover, under the present insolvency regime, adopting a partial netting approach would potentially increase the cost of the DIS by raising the possibility that it could end up paying out more to depositors than it recovers.

31. One way to avoid this would be to change the insolvency legislation in Hong Kong. But this would be quite a radical step, and it is not clear that it would be justified. Without a clear justification, there would seem to be no alternative but to adhere to the netting rules enshrined in the current legislation.

### **Advice Sought**

32. The HKMA would like to invite comments on the appropriate netting rules that should be followed by the DIS before finalising the recommendations in this respect.

33. In particular, comment is sought on the following issues –

- (i) would it be preferable to adopt a partial netting regime for the DIS (as originally envisaged) or a full netting regime (as in the current priority claim arrangements);
- (ii) if a partial netting regime is preferred in principle, would it justify changes to the current insolvency legislation to protect the position of the DIS;
- (iii) if the answer to (ii) is yes, what would be the best option for change (see paragraph 18);
- (iv) to what extent would the adoption of full netting impair the effectiveness of the DIS?

34. Comments can be submitted to the HKMA on or before 31 October 2001 in the following ways:

- (i) By post addressed to the Banking Development Department, 30/F, Citibank Tower, 3 Garden Road, Central, Hong Kong; or
- (ii) By e-mail addressed to [hkma@hkma.gov.hk](mailto:hkma@hkma.gov.hk)

**Hong Kong Monetary Authority  
September 2001**

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## ANNEX

### Netting Rules Adopted by Deposit Protection Schemes in Other Countries

<b>Western Economies</b>	
U.S.	<p>Partial netting</p> <p><i>While the U.S. allows set-off on insolvency, there is not a mandatory requirement for complete set-off of mutual debts and mutual credits upon the liquidation of a company. In practice, if the loan is current, the Federal Deposit Insurance Corporation (FDIC) will offer the depositor the option of retaining the loan or paying off the debt with an offset against the deposit account. However, if the loan is past due, the FDIC will set off the amount of the loan against the deposit. By taking over the positions of insured depositors, the FDIC acquires priority over general creditors in the liquidation of the failed bank. This, coupled with the fact that the FDIC is usually appointed as the receiver of the failed bank, enhances the recovery rate of the FDIC.</i></p>
Canada	<p>Partial netting</p> <p><i>Like the U.S., Canada allows set-off on insolvency, but there is not an explicit provision which requires complete set-off of mutual debts and mutual credits upon the liquidation of a company. In practice, the Canada Deposit Insurance Corporation would net loans in arrears but would not net future obligations unless the failed institution is entitled to do so at the time of payment.</i></p>
U.K.	<p>Full netting</p> <p><i>According to the Rules of the Financial Services Compensation Scheme issued by the Financial Services Authority recently, the amount of compensation payable to a depositor is the amount of his overall net claim against the failed institution. A depositor's overall net claim is the sum of his insured claims against the failed institution less the amount of any liability which the institution may set off against any of those claims.</i></p>
<b>Neighbouring Economies</b>	
Philippines	<p>Partial netting</p> <p><i>According to the Philippine Deposit Insurance Corporation (PDIC), insolvency set-off is not mandatory. The PDIC scheme is patterned after the scheme in the U.S. It will net past due loans against deposits, but loans that are current are not netted unless the depositor opts to do so.</i></p>
Japan	<p>Partial netting</p> <p><i>Deposit Insurance Corporation of Japan will offer a depositor the option of offsetting his loans against his deposits under the new protection scheme to be implemented in 2002.</i></p>
South Korea	Full netting
China	Intends to adopt full netting for the planned protection scheme
Indonesia	Intends to adopt full netting for the planned protection scheme
Thailand	Intends to adopt full netting for the planned protection scheme