

# How to price deposit interest rates in an internal house bank structure

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*Gordon Hands and John Hollas of CUFTanalytics provide a new perspective and transfer pricing methodology for this relatively common but often misunderstood intra-group financial transaction.*

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The use of either an external cash pooling arrangement, or an in-house bank, is a relatively common intercompany financing structure for large and medium sized multinational enterprises.

The first is where the multinational group has a cash pooling arrangement with an external bank. The external bank nets the balances (either overdrafts or deposits) of the bank accounts for the related party participants for the purpose of paying deposit interest.

The second is an in-house bank structure where there is no direct involvement from an external third party bank. All of the cash management functions normally performed by the external bank including the receiving of deposits from related party depositors and the lending of short-term funds to related party borrowers (through intercompany account overdrafts or lines of credit) are performed by the in-house bank. It is this second financing structure that will be discussed in this article.

In general, within an in-house bank structure the related-party depositors assume the short-term credit risk of the group's internal house bank. Conversely, the internal house bank assumes the short-term credit risk of the related-party borrowers. Usually the internal house bank earns a profit based on the spread between deposit interest rates and lending interest rates.

For pricing deposit interest rates in the in-house bank structure the comparable uncontrolled price (CUP) method is difficult if not impossible to apply, as external comparable uncontrolled deposit transactions are not publicly available. Also, quoted bank deposit rates are most likely not comparable without making reliable comparability adjustments. Specifically, the internal house bank will probably not be comparable to a financial (deposit taking) institution as it would not have the same credit quality as a regulated financial institution. And in many tax jurisdictions a quoted bank deposit rate would be considered insufficient as a comparable uncontrolled price (CUP) as they are not actual or consummated transactions. Other traditional transactional and profit based transfer pricing methods are generally not appropriate either. Consequently, an alternative method must be considered.

There is a method for how the arm's length deposit interest rate, expressed as a deposit margin over a short-term market reference rate, can be determined. As the related-party depositors assume the credit risk of the internal house bank, the selected method should determine what an appropriate arm's length return is for the related-party depositors to earn on the short-term credit risk of the internal house bank they have assumed. Based on credit risk pricing methodologies used by financial institutions and regulators, credit risk consists of two fundamental components - expected loss (EL) and unexpected loss (UL). This can be referred to as a return on credit risk (ROCR) and is expressed as  $ROCR = EL + UL$ . Furthermore, EL and UL can be calculated using these formulas:

$$EL(\%) = PD \times LGD$$

and

$$UL(\%) = \sqrt{[PD \times SDLGD]^2 + LGD^2 \times SDPD^2}$$

Where,

PD = the probability of default (%) by the internal house bank over a one year time horizon,

LGD = the loss given default is the proportion (%) of credit exposure that would be unrecoverable by the depositor in the event of default by the internal house bank (that is, equivalent to  $1 - \text{Recovery Rate}$ ) over the one year time horizon,

SDLGD = standard deviation of LGD,

SDPD = standard deviation of PD.

Since credit risk data (that is, PD and LGD) for most publicly traded companies is available for purchase from the credit rating agencies, such as Moody's and Standard & Poor's, the EL and UL – and therefore ROCR - can be determined for comparable uncontrolled companies.

Using a credit risk estimation tool - such as Moody's RiskCalc, Standard & Poor's CreditModel or an internally developed

model – the taxpayer can estimate the credit quality of the internal house bank based on its one year forward-looking probability of default (PD) or an implied/synthetic credit rating.

Then the taxpayer would search for and identify a sufficient number of public companies that are of comparable credit quality to that of their internal house bank. With the available credit risk data the taxpayer can calculate the ROCR for each of the comparable companies and then determine an arm's-length range for the ROCR, or equivalently the arm's-length range of deposit margins. This method, referred to as the ROCR method, is comparable to a transactional net margin method (TNMM) or comparable profits method (CPM), except that instead of using the financial results of comparable companies and benchmarking to an appropriate profit level indicator, the ROCR method uses the publicly available credit risk data of comparable companies (based on the credit quality of the internal house bank) to determine an arm's-length range of ROCR (that is, the arm's-length range of deposit margins).

The resulting arm's-length deposit margin is then added to a short-term market reference rate which is appropriate to the currency of the deposits to determine the short-term deposit interest rate on the intercompany deposits.

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