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The Practice of Cash Pooling

With the increasing internationalisation of customer business and consequently of the banking industry, cash management techniques – with cash pooling being a prominent example – become more and more important. Cash pooling appears to be a simple method for increasing the customer value of banking services, but its technical realisation is far from simple and so very few banks can offer this service.

1 Introduction

Over the past years, interest rates, inflation and currency exchange risks have increasingly influenced conditions under which enterprises do their business. Cash management tries to minimise tension between the two goals liquidity and rentability. An important basis for efficient cash management is information on account balances, based on which interest results can be optimised by off-setting credit and debit balances. This would avoid overdraft charges, interest payments and costly short-term borrowing thus strengthening the company's balance sheet. A reduced borrowing level also improves a number of key financial ratios, making the company more attractive in the capital markets. Also, withholding tax on credit interest can be minimised.

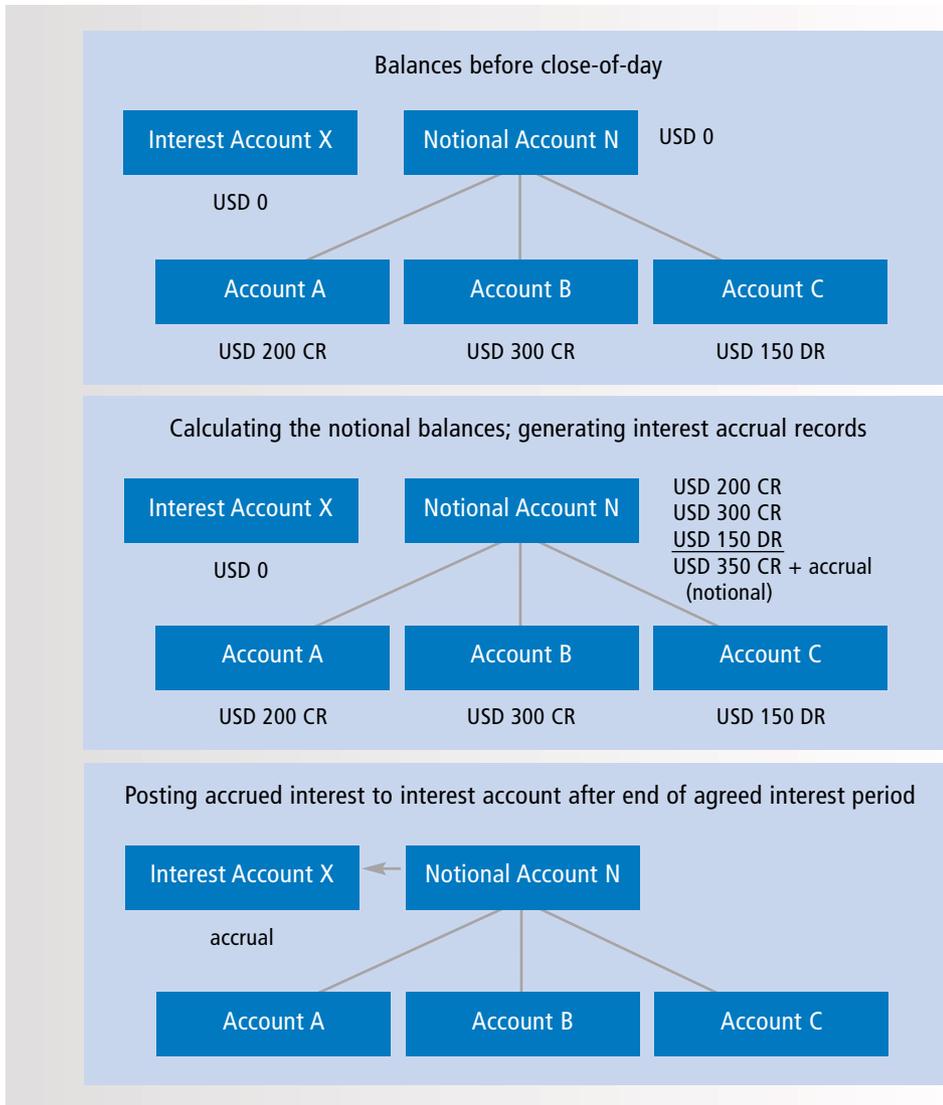Obviously, banks and their customers have contradicting commercial interests with respect to interest payment and substitution of banking services. The loss of interest earning for banks by cash management services cannot be compensated by higher fees. Rationalisation potential as an effect of cash management can help to save costs. More important, cash management services will be a major criteria for enterprises while selecting their banking partners.

2 Approaches for Cash Pooling

The objective of cash pooling is to bring together credit and debit balances. The two alternative approaches are notional pooling and cash concentration. With notional pooling the actual funds do not move but the bank will combine balances of several accounts and pay/charge interest on the combined balance only. Cash concentration is where the funds are physically moved into a single combined account (concentrati-

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Figure 1:
Notional Poo-
ling Example

Balances before close-of-day

Interest Account X — USD 0

Notional Account N — USD 0

Account A — USD 200 CR

Account B — USD 300 CR

Account C — USD 150 DR

Calculating the notional balances; generating interest accrual records

Interest Account X — USD 0

Notional Account N:
USD 200 CR
USD 300 CR
USD 150 DR
USD 350 CR + accrual (notional)

Account A — USD 200 CR

Account B — USD 300 CR

Account C — USD 150 DR

Posting accrued interest to interest account after end of agreed interest period

Interest Account X ← Notional Account N

accrual

Account A — Account B — Account C

on account). Zero balancing and flexible balancing are the two most commonly known implementations of cash concentration.

3 Notional Pooling

The close of day balances across all client's accounts are notionally netted. This can be technically implemented by establishing a parent-child relationship across with the parent account being a dummy account which caters for the notional balance entries. Figure 1 shows an example – accounts A, B and C are to be notionally pooled to account N which is only created to hold the notional balance entries. By creating

these entries, accounts A, B and C remain unaffected. The accrued interest can either be posted to one of the accounts A, B or C at the end of the interest period or a separate interest account X is created.
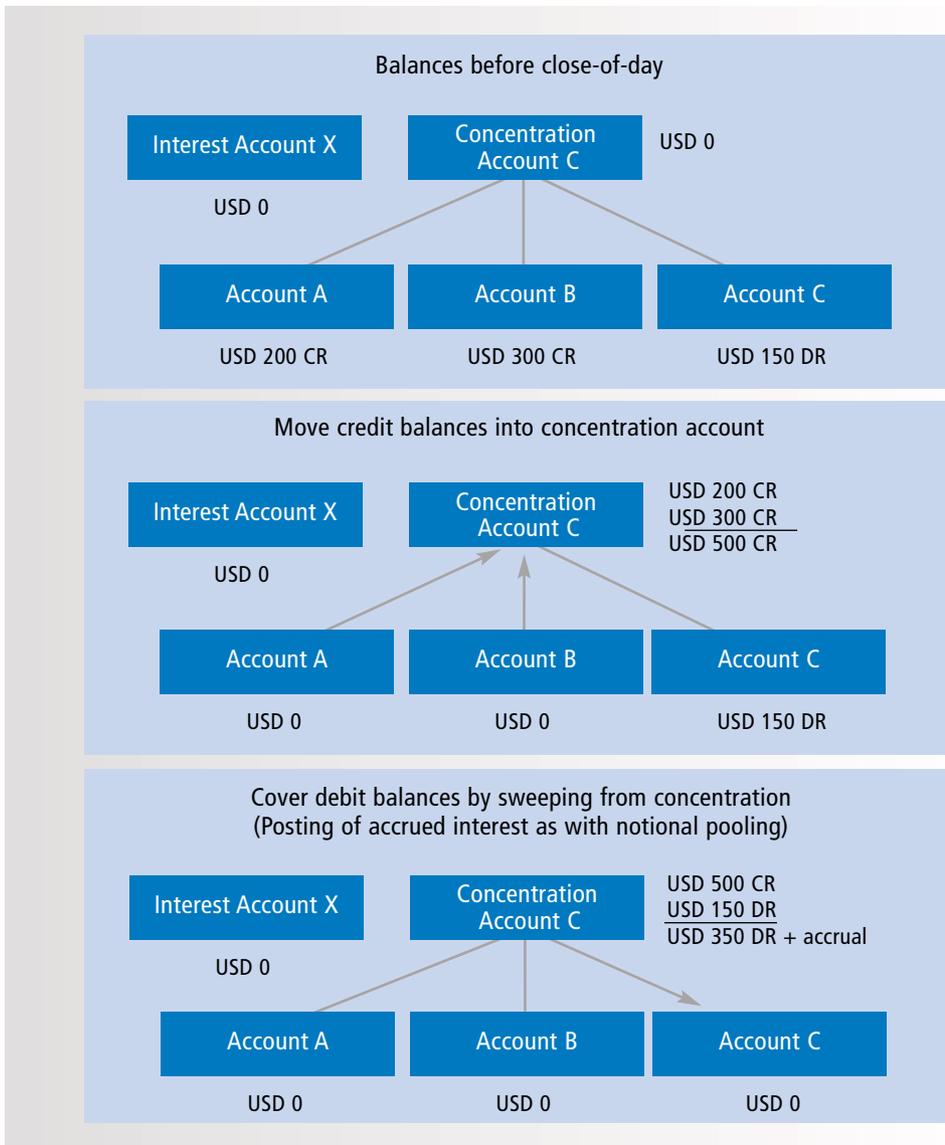
4 Cash Concentration

Funds are physically moved from accounts of the cash-pooling group to a single concentration account by means of account entry transfer. Zero balancing as the most traditional method of cash concentration sweeps all credit balances of the source accounts to the concentration account. Debit balances will be covered by a vice-

Figure 2:
Zero Balancing
Example

Balances before close-of-day

| Interest Account X | Concentration Account C | USD 0 |

USD 0

| Account A | Account B | Account C |

USD 200 CR   USD 300 CR   USD 150 DR

Move credit balances into concentration account

Interest Account X	Concentration Account C	USD 200 CR
		USD 300 CR
		USD 500 CR

USD 0

| Account A | Account B | Account C |

USD 0   USD 0   USD 150 DR

Cover debit balances by sweeping from concentration
(Posting of accrued interest as with notional pooling)

Interest Account X	Concentration Account C	USD 500 CR
		USD 150 DR
		USD 350 DR + accrual

USD 0

| Account A | Account B | Account C |

USD 0   USD 0   USD 0

versa sweep from the concentration account. Figure 2 provides an example of zero balancing and denotes the differences to notional pooling. Flexible balancing is an extension of zero balancing with the possibility to apply target balances (cap and/or floor) to each account in the cash-pooling group. The caps and floors are used to keep group liquidity up to a certain level without manually transferring entries back from the concentration account as it would be necessary with zero balancing.

Technical methods and algorithms of account entry transfer are the basis of every cash concentration implementation. In the following, the challenges and thoughts behind these algorithms will be examined in deeper detail.

The task of the algorithm is to ensure that the sub-accounts have a constant/zero balance and that all funds are transferred to the concentration account for the duration of the cash pooling agreement.

In Swift MT 940 messages there will be some transactions whose value date will be either prior or later to the booking date; these transactions are called back-value or future-value transactions. Depending on political agreements between the bank and their customers, future-value transactions are either taken into account or fu-

ture balances are not analysed. However, back-value transactions should be considered as they modify the value balance from the back-value date until the current day. The algorithm will start analysing value positions at the minimum value date and re-calculate interest accruals accordingly.

As entries are being swept to the concentration account, it is quite likely that there will be some entries at the beginning and at the end of the cash pooling period which will cross the start and end date; these entries will be referred to as "cross-entries". Figure 3 shows three entries of which the first two cross the cash pooling start date. These dates need to be controlled so that the dates are within the effective period of the cash pooling agreement. This is for normal processing, i.e. when the cash pooling agreement is already in place.

book date before and value date after the start date, the sweep will be included in the book balance but not in the value balance at start date. An expiration procedure will work on the last day of the cash pooling agreement and afterwards for back-value transactions. Naturally it will ignore all entries with post and value date after the end date.

The following functionality will also exist in a sophisticated cash concentration environment:

■ Change start/end date before, within or after the cash pooling period

■ Change concentration account or sub-accounts

■ Change the minimum balances on sub-accounts (for flexible balancing)
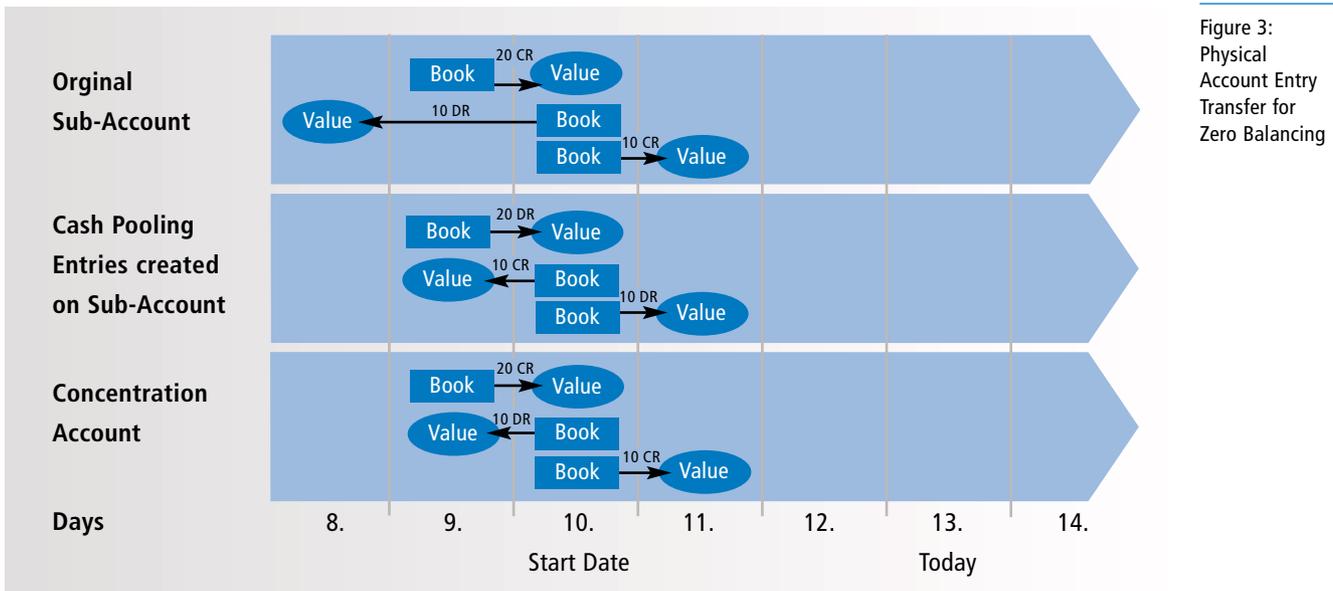

Figure 3:
Physical
Account Entry
Transfer for
Zero Balancing

The algorithm will also contain a start procedure which will clear the sub-accounts on the start date of the cash-pooling agreement. Entries with book date before the start date will be swept to the concentration account by the start procedure. Entries with both book and value date before the start date will be ignored. If an entry has

Also, there can be a possibility to either sweep each and every transaction entry from the sub-accounts to the concentration account or to sum up all entries with matching book and value date and generate a single entry from sub-account to concentration account.

5 Foreign Currencies

In the United States, the tax regulations 301.7701, effective January 1, 1997, have opened the door for cross border US-dollar cash management. The effect of these provisions is that foreign subsidiaries of U.S.-based multi-national corporations may now be eligible to mingle their funds with the funds of the American based company. For purposes of taxation, the movement of funds from the foreign subsidiary to the U.S. parent is treated as if it were a domestic transaction and so the foreign subsidiary can be included in the cash pooling agreement. Also, the Federal Reserve currently does not consider the holder of a concentration account to be a "credit institution" if the holder is a non-financial entity. This levies increased reporting requirements.

New possibilities of European cash management have received much attention with introduction of the EUR as corporates and financial institutions try to evaluate the real benefits of the Economic and Monetary Union (EMU). During the transition period of the EMU the funds may still be held in national legacy currency during the day and converted to EUR during balance transfer. The cash pooling group account will then be held in EUR and the net group cash position could be placed in the money market or in a short term investment fund. However, much potential still remains in lifting charges on cross border payments and in removing tax and legal differences, central bank reporting requirements and even in formatting instructions of payments.

6 Few Banks Dominate Cash Pooling-services

Today a group of six banks – ABN AMRO, Bank of America, Chase, Citibank, Deutsche Bank and HSBC – dominate the market for cash pooling services. Out of the six, Citibank clearly dominates. But the picture of American pre-eminence is clearly changing with introduction of the EURO

and the pan-European market. Deutsche Bank is holding the cash management mandates for General Motors, Bridgestone, Saint Gobain, Siemens, Bayer and others. The main European competitor is ABN AMRO holding the mandates for Oracle and Alcatel, for instance.

7 Conclusions

The EMU in Europe does not remove all obstacles for cross border cash pooling but provides an opportunity to re-structure banking relationships and to make the European Market more competitive. Either on a national or international basis, cash pooling techniques significantly help to change traditional cultures of corporate groups from local autonomy with each unit being responsible for their own results to a group-wide profit and loss thinking. With cash pooling techniques historically large number of banking connections can be reduced, regional loans can be replaced saving on short-term borrowing costs and transparency of the outstandings is increased. In order to be competitive in a banking world of declining margins, banks will have to establish facilities for centralised payment and cash management processing.