

György Walter – Balázs Kenesei

Innovative Banking Services for Centralised Corporate Cash Management

SUMMARY: Corporate cash management is a significant area of classic corporate finance theory and practice. Within a corporate group it is almost impossible to implement centralised cash management without the specialised service of corporate banks or other financial institutions. The objective of the article is to present the growing role of such transaction services within corporate banks' organisations, and also to group and to analyse the continuously improving and developing “netting”, “cash pool” and “information pool” banking products. It is a clear conclusion, that these services represent one of the most innovative and dynamically developing product-groups of contemporary corporate banks that need to keep up with the globalisation and regional expansion of their clientele. Finally, we present the main risk and regulatory considerations of product implementation.

KEYWORDS: corporate cash management, banking transaction services, cash pool, corporate banking

JEL-CODES: G15, G21, G32

Corporate cash management is a key aspect of corporate finance. Below we examine the manner in which centralised cash management is aligned to the operations of enterprises and give an overview of the existing solutions. In this context, we provide a detailed presentation of the “pool” type products linked to the latest payment services offered by banks and other financial institutions. The weight and significance of such services have increased considerably in the operations of banks in recent years, attesting to the continuous progress and development observed in this area. In this paper we analyse the functioning and structure of the products offered by banks to

corporate clients with a view to supporting centralised and efficient cash management. We describe the risks surrounding these products, as well as a number of additional aspects related to their introduction.

In the framework of the literature review presented below, we identify the role and process of corporate cash management within the area of corporate finance. We then proceed to inspect the function of the cash management services offered and supported by banks within the organisation of financial institutions. The next chapter gives an account of the centralised cash management solutions offered by banks, from netting systems to the growing array of increasingly complex “cash pool” information management systems. Finally, we describe the complex aspects, problems and

E-mail address: gyorgy.walter@uni-corvinus.hu

risks arising in connection with cash pooling, also commenting on future trends.

LITERATURE REVIEW – PROCESS OF CORPORATE CASH MANAGEMENT, MODELS AND CENTRALISED CASH MANAGEMENT

Liquidity management and cash management are invariably key areas of interest in the financial management of corporations. The topic of cash management, along with the relevant literature, is discussed in nearly all Hungarian (Fazakas, 2000) or foreign (Brealy and Myers, 2005) textbooks on general corporate finance. The structured cash management of a multinational consortium is an even more complex task and accordingly, international literature and textbooks on corporate finance (Siddaiah, 2010), (Madura, 2010) elaborate on the topic of cash management in even more detail.

Delving even further into the topic, textbooks present corporate cash management – liquidity management and planning – as a sub-topic of current asset management. Main sub-fields are related, on the one hand, to (1) cash flow planning, including its accuracy, efficiency and technique; on the other hand, (2) they analyse cash collection, disbursement and use; and finally, (3) they develop optimal cash management models (investment vs. holding cash as a safety margin).

Planning is discussed in the literature in various forms, from business planning (e.g. *Balaton* and *Tari*, 2007) through short-term planning to the behavioural bias of planning (e.g. *Jáki*, 2013). At the same time, liquidity management and direct cash management tend to concentrate on the control of the planned cash flow itself, i.e. the control of cash collection and cash disbursement, as well as the definition of the optimal level of

freely disposable liquid assets, their management and the presentation of their models. Textbooks (Siddaiah, 2010; Brealy and Myers, 2005; Fazakas, 2004) draw on the articles that have been published in recent decades about the criteria and applications of various optimal cash management systems. Classical models in this area are those published by *Baumol* (1952) and by *Miller* and *Orr* (1966). In addition, there are numerous other enhanced models that are also considered to be basic models, such as those included in *Eppen* and *Fama* (1968) or *Stone* (1972). For a list of these models from the beginning of the 20th century to the end of the 1970s, see for example *Gitman et al.* (1979). The significance of the topic of liquidity is underpinned by the fact that it has been connected to numerous other, special corporate finance topics in the international literature. For example, *Acerbi* and *Scandolo* (2008) incorporate liquidity expectations into risk management, while *Csóka* and *Herings* (2014) extend the theory of capital allocation to liquidity expectations. The Hungarian financial literature also addresses the topics of liquidity and cash management: it provides a description of classical models and the empirical analysis of corporations based on these models before proceeding to connect the classical fields with special topics. In his research, *Havran* (2008) summarises classical and more recent models, describes a number of additional theories, and proposes a centralised cash pool solution. *Felföldi* and *Kovács* (2011), in turn, present an analysis of classical models and corporate current accounts.

Similarly, the analysis of the efficiency of cash management addresses the topics of collection, disbursement and utilisation. The objectives are to collect liquid assets as fast and inexpensively as possible, to pay invoices as slowly and inexpensively as possible and, after proper planning and in a manner that does

not jeopardise safe operations, to keep the level of cash holdings at an optimally low level in order to avoid interest losses. In the case of multinational corporations cash management is an even more complex task, with several factors – such as multiple currencies and differences in taxation and other regulations – encumbering cash planning and management.

Before the group can define and plan the optimal level of incoming and outgoing payments, it first has to optimise its own internal cash management, including the incoming and outgoing payments of its units, intra-group payment transactions and their methods. A cardinal issue is, for example, whether the group performs its cash management on a decentralised basis – i.e. each subsidiary separately –, or on a consolidated basis as a single unit. For the most part, the literature argues that a centralised cash management style is more efficient as, on the one hand, it requires a lower level of uninvested cash and, on the other hand, it implies a lower consolidated borrowing requirement compared to each subsidiary being responsible for its own cash management (Madura, 2010, p. 600). Moreover, this style is associated with the highest level of net interest revenues (or, in a net borrower position, with the lowest level of interest expenditures) if only for the reason of economies of scale. Under centralised cash management, the corporation can invest its savings at a higher negotiated interest rate while, on the credit side, it may borrow the smallest possible amount of funds with the most favourable lending conditions. Among the advantages of the centralised management style, the literature often cites the elimination of foreign currency risk, in-country borrowing facilities and the related constraints, the standardisation of internal reporting, the streamlining of bank relations, etc. (Kilkelly, 2011). Meanwhile, centralisation has its disadvantages. It reduces the flexibility of affiliates in case of urgent li-

quidity decisions. There are numerous other factors to reckon with: cross-border transactions may suffer unpredictable delays, problems may arise during the technical implementation, taxation or regulatory issues may interfere, or transaction costs may increase (Siddaiah, 2010, p. 314). Finally, centralised decision-making may spawn organisational resistance and demotivation, which may undermine the positive effects of the centralisation (Oxelheim and Wihlborg, 2008, Chapter 10.6).

BANKING SOLUTIONS FOR CENTRALISED CASH MANAGEMENT

Role of centralised cash management services within the bank

The area responsible for cash management services has recently received a priority role in the strategy of commercial banks. At most banks, dedicated departments, directorates, or even independent divisions are responsible for this product group, performing not only service or back-office functions, but also sales duties in respect of these particular products. The cash management area has gained ground for several reasons. On the one hand, as a result of the tightening capital adequacy requirement (Basel II and Basel III regulations), transaction, fee or deposit interest based revenues have gained an increasingly important role as they ensure constant funding and a stable income. In addition, the growing significance of the area may in part be attributed to the role of the service in retaining clients. Creditworthy corporations, i.e. those that can freely select from several banks upon borrowing, will have a preference for banks that are not only the account managers of the corporation, but also offer cash management services as an added value. In

Europe, the significance of the cash management area is increased further by the recent standardisation of payment transactions, primarily the mandatory migration to the Single Euro Payments Area (SEPA). SEPA carries a significant cost-cutting potential for all large corporations; it determines cash management trends and development projects for the present and for the near future, and it may give rise to major shifts both in the banking market (to the benefit of global market participants with large payment processing capability and a global network) and in respect of the geographical execution of euro payments (gearing towards the traditionally cheaper banking markets). Finally, as products become increasingly complex, many cash management services now require special expertise, which also facilitates the emergence of independent units within the bank.

The centralised cash management systems offered by banks developed in tandem with banking solutions and systems, as well as client requirements. Concentration solutions for banks were mentioned in textbooks as early as the 1990s, proposing several options for concentration banking, under which the corporate treasurer may pool the funds from its collecting banks into a concentration account and initiate transfers from the bank holding that account. The 1990s saw the emergence of various electronic banking solutions, although in many cases they still involve magnetic disks and “clearing houses” operating on this basis (Brigham and Gapenski 1996, pp. 727–728).¹ At the same time, pooling funds into a single account and setting it up as the primary account for the corporation’s cash management was a central theme in all of the solutions.

The payment services offered by banks include “basic services”, which are used by all corporate clients, and “convenience services”, which are intended to improve the performance of corporate treasury and facilitate its

efficient, in many cases centralised, operations. These convenience services, however, may be important determinants of corporations’ bank preferences. Banks are among the key suppliers of companies, and below we present a number of complex products and services, which facilitate centralised cash management and render the bank a day-to-day participant in corporate cash and liquidity management. It should be stressed that today these products are far from being an exclusive service provided only to large, multinational corporations. As a result of technological development and the increased significance of the SME sector as a target group for banks, a cash pool model has become a product available even to medium-sized company groups, representing added value for the businesses concerned.

Netting systems

The simplification of inter-company financial flows is one of the most important elements of centralised cash management. It is safe to assume that there are buyer and supplier connections between the affiliates of a parent company. As a first step, centralised multinational corporations strived to reduce the number of cash transactions between their affiliates and between the affiliates and the parent firm by means of netting liabilities and receivables. This process led to the emergence of the so-called “netting systems”. Multinational corporations with a large number of affiliates set up a bilateral netting system or, in case of more complex systems, a multilateral netting and settlement scheme (Siddaiah, 2010). Nowadays, however, not only classical multinational corporations face similar centralisation issues; indeed medium-sized firms or company groups within the specific region or country tend to encounter similar tasks and similar issues.

Netting systems are designed to simplify and improve the efficiency of inter-company payment transactions and today, in most cases, they involve software or internet based banking² applications. Under the netting system, affiliates settle accounts with one another on a fixed periodic schedule, which allows for the “netting” of claims and liabilities within the group. Obviously, netting benefits the group if there are significant cross-sales between the affiliates. Accordingly, we should examine which companies and which currencies are worth being included in the netting system. Under the netting scheme, affiliates report to the Netting Centre all due and payable liabilities and claims vis-à-vis each other, and the Netting Centre ensures that the net amounts are transferred or collected (Kilkelly, 2011). By eliminating unnecessary transactions, a well-functioning netting system may result in substantial savings with respect to transaction and conversion costs, reduces the financing requirement, and increases available cash holdings.

Netting models optimise inter-company settlements; at the same time, they do not centralise settlement with the company’s external partners or cash management as a whole. It is the cash pool systems that provide a solution supported mainly by banking techniques for the implementation of a fully centralised global corporate cash management style.

Cash pool models

Cash pooling is a contemporary and modern form of centralised cash management services offered to corporations. Originally, cash pooling was a process of offsetting companies’ credit and debit positions in various accounts on a daily basis, mirroring, as it were, the accounting settlement – consolidation – between the two accounts. According to the cur-

rent terminology the term has been used in a more general sense; any kind of consolidation between accounts, irrespective of how it is performed, is technically called cash pooling. Cash pooling is accomplished under a pre-arranged bank account structure whereby businesses or organisational units – which may even be legally separate entities – combine the balances of their accounts into a single primary account on a daily basis, and settle the resulting interest revenues or interest expenditures with one another (Hillman, 2011). In using cash pool services, participating affiliates conclude an agreement, which defines the cash pool structure and the terms and conditions to be applied between each other. On the other hand, an agreement is made with the bank for account management and cash pool management, including the applicable customised conditions (Jansen, 2011).

Commercial banks offer various cash pool solutions; however, according to their nature, the different schemes can be classified into two categories:

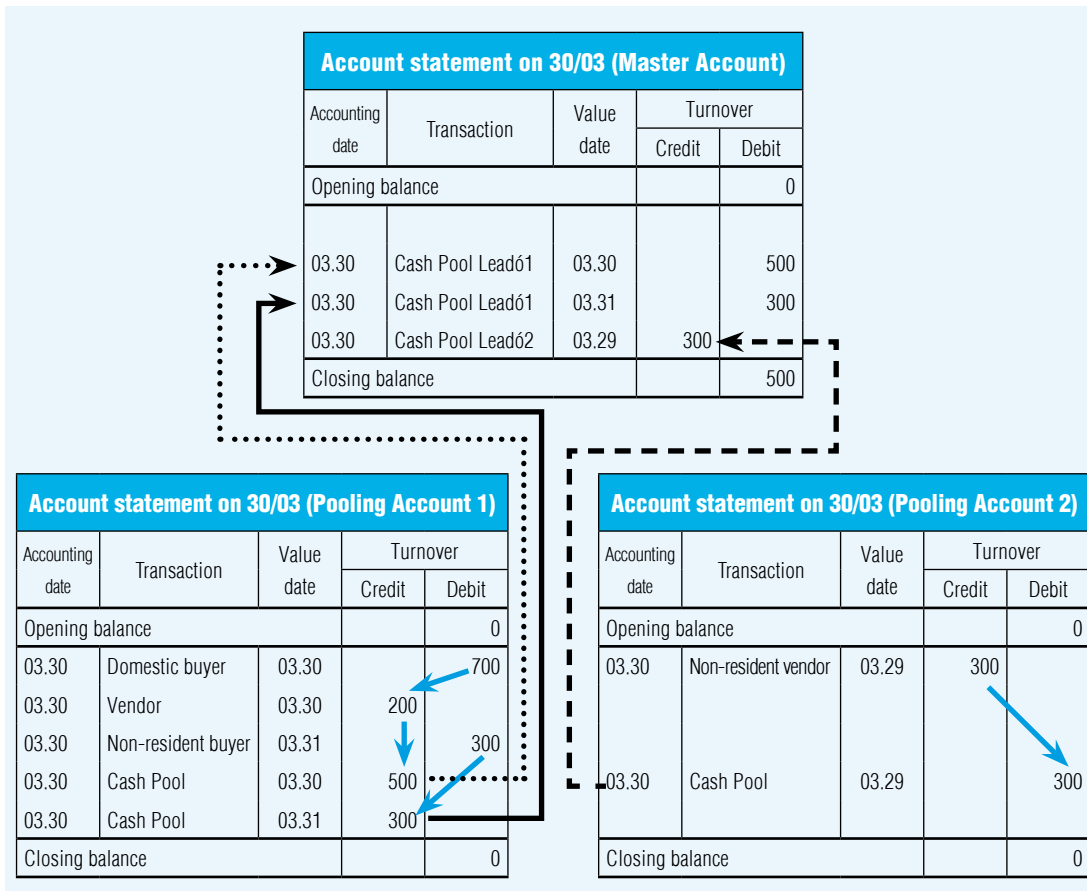
- “Cash Concentration” or Physical Cash Pool;
- “Notional Cash Pool”.

Owing to the different legal environment, the frequency and proportion at which different cash pooling schemes are used vary from region to region. For instance, physical cash pool is the most popular category in the European Union and in the United States, while companies in Africa and Asia tend to opt for notional pooling. The legal, regulatory and taxation issues determining these applications will be discussed later in this paper. Below we elaborate on the different types of cash pool systems.

Cash Concentration

The primary purpose of Cash Concentration is to achieve the concentration of the group’s available liquidity in order to reduce the ex-

ZERO-BALANCING CASH POOL ACCOUNTING RECORDS



Source: own editing

ternal financing requirement of the company, and to ensure the optimal use of excess liquidity while taking advantage of the potentials of economies of scale (Dolfe and Koritz, 1999). The simplest and most popular form of Cash Concentration is referred to as the “Zero-Balancing Cash Pool”. Pooling accounts are sub-accounts linked to the central – “Master” – account of the cash pool, which is the account of the central corporation, i.e. the Pool Leader. The positive (credit) balance of the pooling accounts is transferred to the Master account on a regular basis (usually at the end of each business day). In case of a negative (debit) balance, the pooling account is topped up from

the Master account. In order to manage the latter case, an Intraday Overdraft Facility is often set up for the sub-accounts linked to the Cash Concentration structure. *Chart 1* presents an illustration of settlement under the Zero-Balancing Cash Pool structure with the involvement of two sub-accounts. Settlement is performed on a value date basis, thereby preventing the company from sustaining interest losses.

Thus, at the end of the day, the Master account reflects the consolidated balance of the sub-accounts linked to the cash pool. Technically speaking, the corporation holding the Master account posts transactions as inter-

company (or owner’s) loans vis-à-vis the affiliates holding the pooling accounts, where the owners of the pooling accounts are either in a creditor or borrower position vis-a-vis the Pool Leader. The bank calculates deposit and loan interests based on the balance of the Master account, and settles accounts exclusively with the Pool Leader. In the context of inter-company cross-financing, the parent company – typically the central treasury – is responsible for determining the interest expenditures and receivables of pooling account holders and for preparing the relevant accounting records.

In addition to Zero Balancing, the Cash Concentration scheme may also be Target-Balancing. This differs from the solution described above in that the company can define a specific balance (i.e. a Target Balance) for each individual pooling account. With this solution, there is no need for an Intraday Overdraft Facility for the pooling accounts, as the Pool Leader ensures the required daily liquidity for the affiliates participating in the cash pool.

Notional Cash Pool

The Notional Cash Pool is a fictitious cash pool, with no physical transfers between the accounts. In reality, this is a method of interest optimisation, whereby interest is paid on the basis of the consolidated balance of the bank accounts participating in the cash pool (Dolfe and Koritz, 1999; Hillman 2011). If all affected accounts have a positive balance, the pool will benefit the corporation if the parent company negotiated a tiered interest rate with the bank; in this case, the bank pays a higher interest on the higher, fictitious balance than it would in the case of calculating demand interest on the balance of each individual sub-account.

The interest advantage – or interest saving – can be significantly higher when the cash pool includes accounts with negative balances;

in that case, the accounts with positive balances are used to cross-finance – in part or in full – the company in the borrowing position. It is precisely this feature of Notional Cash Pools that makes banks refrain from using this scheme. In most European countries (including Hungary) banks are not permitted to offset their negative and positive balances vis-à-vis each other; they are required to recognise the balances of participating accounts in gross terms. As a result, the bank will still incur the total lending costs and the costs associated with the reserve requirement on the total balance of the account in the borrowing position, and only a part of this cost can be passed on to the client.

An interest compensation tool similar to the concept of the Notional Cash Pool has been designed to solve this problem. It is referred to as “Margin Optimisation”. Under this scheme the balances of participating current accounts are not consolidated and the bank considers the proportion of negative and positive balances during the calculation of interest (this is called the “offsetting factor”). If the ratio of positive balances is close to the ratio of negative balances (i.e. the offsetting factor is high), the group-level net interest income will be more optimal, i.e. the applicable interest rate on loans will be lower, while the interest on deposits will be higher. When opting for to this system, for each individual account the parties agree on a minimum and maximum interest premium and deposit margin relative to the reference interest rate. There is no need to open a Master account; each account participates in the settlement independently and at the same level. There are no physical flows, actual conversion or group-level cross-financing; interests on the participating current accounts are calculated by the bank; thus the application of the product does not imply extra administrative expenditures for the companies.

Combined cash pooling solutions

Above we presented the two main cash pooling structures; however, numerous additional combinations are used. Each cash pooling structure can involve domestic or cross-border, intra-bank, single-currency or multi-currency solutions. Similarly, the interest compensation product described above may be combined, for example, with a domestic Zero-Balancing Cash Pooling structure.

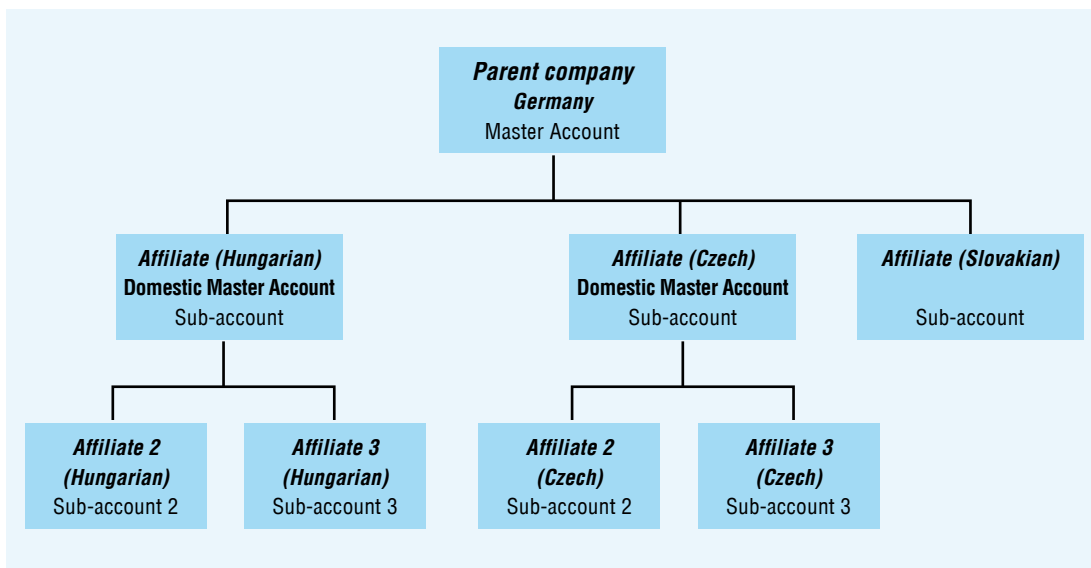
Currently, practically all banks with a global network provide a cross-border cash pool solution; the multi-currency product, however, is far from being widespread. This may be primarily attributed to the issues of automation and transparency regarding the processes. While cross-border but intra-bank settlements can be highly automated and fast, cash pool accounting between accounts denominated in different currencies often require human interaction. In addition, the costs associated with the required treasury (swap) transactions are not sufficiently transparent, and clients may face high opportunity costs. For this reason,

many corporations do not insist on the application of the multi-currency solution but prefer to install their own liquidity management solution for the currencies involved. At the same time, the adoption of the euro strongly contributed to the proliferation of cash pool solutions; indeed, multinational corporations need to have a euro account in nearly all European countries and in their case the application of a cross-border euro cash pool is a realistic and easy-to-implement option.

A frequent solution for cross-border structures – provided that there are more than one sub-accounts in individual countries or accounts are held with more than one bank – is to set up a domestic Zero-Balancing Cash Pool in each country. Usually, the Master account is held by a non-resident company – typically the same company as the one holding the global Master account. As a first step, therefore, accounts are depleted or topped up in the framework of the domestic Cash Pool, while the cross-border cash pool settlement takes place in the second step, where the Mas-

Chart 2

CROSS-BORDER ZERO-BALANCING CASH POOL WITH DOMESTIC MASTER ACCOUNTS



Source: own editing

ter accounts of the domestic pooling function are used as the sub-accounts of the global Master account. This solution is advantageous as it reduces the number of international transfers required for the cash pool, while easing the treatment of individual regions/countries as separate units within a regionally divided multinational corporation. (See *Chart 2*).

At the same time, multinational corporations often face the problem that the geographical coverage of their own group and the global network of their cash pool bank do not entirely overlap. In addition, the company may have certain domestic bank relations that it would prefer to preserve, and the costs of switching banks would exceed the benefits that could be reaped from the introduction of the cash pool. International banks aim to ensure geographical coverage in regions where they have no representation by establishing a partner bank network. In many cases, partner bank cooperation extends to the provision of cash pool services as well, allowing for the establishment of a *multi-bank cash pool* structure. In such cases, instead of their own applications, banks use SWIFT for communication and settlement purposes. In general however, they perform the settlement on the basis of a scheduled value date, as is the case with settlements between their own accounts.

A possible version of cash pool settlement with bank accounts maintained by multiple banks is known as the “overlay structure”.³ Under this structure, a global cash pool bank is selected which, however, is not necessarily identical with the domestic account manager banks. Consequently, affiliates of the group may preserve their existing bank accounts, but at the end of the day, the positive or negative balance of those accounts will be transferred to the accounts held at the global cash pool bank or its domestic partner banks. As a result, cross-border cash pool settlement takes place between the accounts of a single bank –

the global cash pool bank. The application of the overlay structure may be recommended for several reasons. On the one hand, the replacement of existing account manager banks may be undesirable, too expensive, or not feasible at all, possibly due to commitments related to loans outstanding. On the other hand, the presence of global banks in different countries may vary; they may provide comprehensive services in certain countries, while offering only a limited range of services in others. Thus, in some countries, they may not provide domestic cash management services at all. At the same time, they may set up the overlay structure through local representations, which could be implemented with the participation of accounts held in the same currency, but also with the involvement of multiple currencies.

The so-called *Global Cross Currency Notional Cash Pool* is a complex, global cash pool product. The structure involves multiple currencies and as many affiliates of the group as possible. However, this is not a physical cash pool as there are no physical transfers; however, similar to the Margin Optimisation product, interest is settled through a base currency. Actually, this product is an overlay structure at the same time, allowing companies participating in the cash pool to retain their current accounts at their existing banks, while at the end of the day their account balance is transferred automatically (and physically) to their accounts held at the overlay bank in the same currency (i.e. the affiliate needs to open an offshore account at the overlay bank as well). In order to prevent the need for an overdraft facility, affiliates may retain a certain amount of liquidity reserve on their current accounts (obviously, the objective of the corporation’s central treasury is to keep this amount as low as possible). If the balance is lower than the desirable level, the current account will be replenished from the overlay account (for this purpose, the bank provides a credit line de-

nominated in the given currency). The essence of the product can be captured in the management of the so-called global overlay accounts held at the overlay bank. The cash holdings of the company are defined here based on the balance of individual FX accounts, expressed in the base currency (Kombrink, 2008). Another benefit of this solution – in addition to those mentioned above in relation to the overlay and notional pooling structures – is the fact that, instead of providing or receiving intercompany loans, affiliates rely on the central facility, while the interests payable to the bank reflect virtual cross-financing, i.e. the net position of the company. The central treasury of the corporation, in turn, will have up-to-date information on the liquidity position of the corporation. The model assumes that the parent company can achieve more favourable conditions both on the loan and the deposit side than the affiliated companies. While this is certainly true in most cases, for the sake of centralisation affiliates sometimes need to give up more favourable domestic conditions. Corporate treasury, however, obviously expects to achieve less expensive financing at the group level. It should be also noted that affiliates are required to keep liquidity reserves on their operative current accounts, which may involve high opportunity costs.

Finally, we should also consider that, in introducing any similar, more complex structures, the main motivation of a corporation's central treasury is simplification and a desire to outsource certain tasks to professional service providers.

Information management services

Banks do not necessarily need to perform actual or virtual transfers and consolidation between accounts to help central corporate cash management and corporate treasury. In certain cases, the collection and arrangement of information on bank and corporate accounts and its

reporting in a given format may be sufficient to provide significant added value to the client. Information management services involve the collection of information relevant to the client and the disclosure of the information by the bank in a structured and easy-to-process format. Using the analogy of cash pooling, this service is also referred to as Information Pooling. The bank undertakes to process the transactions of all bank accounts included in the service and to provide the information to the client in the desired format (consolidated, broken down by transaction type and account). Accounts managed by other banks may also be included in the service, in respect of which the service provider bank receives account information from the account manager bank via SWIFT. With the adequate alignment of account information to corporate requirements and the addition of other relevant information (e.g. interest settlement), this service may be truly customised to the needs of the company.

ASPECTS AND RISKS OF THE SELECTION OF CENTRALISED BANKING SERVICES

While all these products appear very “desirable” and beneficial for a company, certain aspects and risks should be considered, both from the perspective of the bank offering the service, and from that of the company. Based on the literature in general and on the various professional publications in particular (see for example CEM, 2013; Hillman, 2011; Jansen, 2011; (TAG, 2015a; TAG, 2015b), these items may be classified as follows.

► **Moral hazard and motivational problems**
 Since affiliates need to relinquish their surplus cash flow in any event, they have no vested interest in efficient and speedy collection and, since they can rely on daily financing, they are not motivated to ensure controlled payments either.

In addition, losing control over the cash flow produced and over the use of the cash flow may spawn organisational resistance with a negative impact on local management and other areas.

▶ Issue of cost cutting, decentralisation:

Experience shows that the parent company may not necessarily be able to negotiate better conditions with the banks. Indeed, an affiliate may be in a better position to achieve more advantageous terms with another bank thanks to local specificities, local connections and higher competition. On the one hand, it may be able to negotiate lower interest rates on loans and higher interest rates on investments than achieved or provided by the parent company. A mandatory bank switching in itself may result in worse conditions in global terms in the area of other banking services. This could spawn additional severe conflicts of interest between the parent company and the affiliates which may consume some of the proclaimed cost savings.

Issues arising from the different regulations of countries and regions in the context of cross-border structures:

- taxation rules may increase costs with respect to recognised interest revenues and interest expenditures.
- certain regulatory differences and restrictions on cash and capital inflows, outflows and currency conversion may obstruct the establishment of the structures.

▶ Numerous regulatory and legislative differences between countries and regions:

- banking regulations: In several countries, only financial institutions are permitted to provide cash pool services; in other places there are no such strict requirements.⁴ The capital requirement of the facilities set up under the pool or resulting from the virtual offsetting of open positions may be different.

- company law implications, corporate regulations: The principles and regulations pertaining to the criteria of joining a cash pool may differ from country to country even across Europe. Numerous factors need to be considered: the company joining the cash pool may not be worse off by joining the cash pool than before; the approval rights, obligations and liabilities of owners and management; joining the cash pool may not jeopardise the repayment of loans and liabilities and the ensuing monitoring and review obligations; compliance with specific minimum capital requirements, etc.
- differences in accounting and taxation regulations. Regulations on inter-company loans and the allocation of interest revenues, expenditures and transaction costs may entail taxation, regulatory and accounting settlement issues.

Obviously, the aspects listed above may not be considered as a full set of risk and assessment criteria; however, they clearly indicate that it is impossible to select a generally optimal structure. Each decision and implementation should be preceded by specific legal, risk, cost and benefit analysis, especially in the case of cross-border transactions.⁵

SUMMARY

The optimisation of a multinational corporation's cash management, the reduction of its lending rates or the achievement of higher yields on its investments are among the most important tasks of corporate treasuries. The cash pool structures presented in this paper are exceptionally suitable for achieving the goals described above. Indeed, they appear to be so beneficial that the question arises why all companies are not involved in cash pools.

In many cases, this may be attributed to the fact that the company does not recognise the benefits of cash pooling, or even if they do recognise them, the expected benefits are deemed negligible in view of the small size of the company group or the limited number of accounts to be included in the cash pool. The risk factors listed in the previous chapter may be another possible explanation.

Nevertheless, we certainly believe that the use of cash pooling would be beneficial for far more companies than those actually using this service. Besides the reasons cited in the literature, several more recent phenomena may help explain why companies decide to refrain from the implementation of cash pooling solutions. For large corporations – where the potential benefits of cash pooling are substantial – the implementation would consume substantial resources and entail considerable costs. The question to be considered is whether the company has the necessary resources or considers the benefits so significant that it would be willing to allocate its generally scarce resources to the project at the expense of other projects. Another question arises as to whether the company has sufficient information about the benefits of cash pooling in order to make an informed decision. The actual quantification of these benefits is far from being an easy

task, and in the absence of accurate forecasts, it is difficult to obtain the support of decision-makers. In addition, the establishment and implementation of cash pooling is a lengthy process for larger corporations, stretching to two years or even longer, which represents another disadvantage compared to projects with more immediate benefits.

Having said that, the implementation of new cash pools is supported significantly by a recent phenomenon. Recently the resources of experts engaged in cash management at European corporate treasuries have been, nearly without exception, tied up by the adoption of SEPA requirements. This project has now been completed at most corporations and further additions do not consume the entire capacity available. For this reason, we are fairly certain that the implementation of cash pooling structures will gain new momentum. It is especially true for the euro cash pool, as nearly all companies have an euro account, and the adoption of the SEPA has underpinned the potentials of centralisation. Once the euro cash pool is introduced, it will heighten the demand for multi-currency and combined solutions as well, generating a need for product development at banks. As a result, the range of products intended to serve corporate centralisation may grow and expand further.

NOTES

¹ Cheque payments – an extremely frequent payment solution in the USA – also played an important role, along with methods for their collection and concentration. See for example Brigham and Gapenski, 1996, p. 728

² The netting service is not a banking product exclusively; other financial service providers also offer software support, and the company itself may develop an internal settlement method for this purpose.

³ Account settlement above the existing bank accounts.

⁴ In accordance with Hungarian regulations, the provision of cash pool services is not necessarily subject to authorisation by the supervisory authority (Jansen, 2011)

⁵ See for example the case study included in *Polak* (2008)

LITERATURE

- ACERBI, C. – G. SCANDOLO (2008): Liquidity risk theory and coherent measures of risk. *Quantitative Finance* 8, pp. 681–692
- BALATON, K. – E. TARI (2007): *Stratégiai és üzleti tervezés (Strategic and Business Planning)*. Bologna Workbooks, pp. 48–109. Aula. Budapest
- BAUMOL, W. J. (1952): The Transactions Demand for Cash: An Inventory Theoretic Approach. *The Quarterly Journal of Economics* 66, pp. 545–556
- BREALEY, R. A. – S. C. MYERS, (2005): *Principles of Corporate Finance*. Panem–McGraw-Hill. Budapest
- BRIGHAM, E. F. – L.C. GAPENSKI (1996): Intermediate Financial Management. *The Dryden Press*
- BOYCE, S. (2014): The Pros of Pooling. The Treasurer, March 2014. Online: <https://www.treasurers.org/pros-pooling> (downloaded: 06/06/2015)
- CSÓKA, P. – HERINGS, P. J. J. (2014): Risk Allocation under Liquidity Constraints. *Journal of Banking and Finance* 49, pp. 1–9
- DOLFE, M. – A. KORITZ (1999): *European Cash Management: A Guide to Best Practice*. Wiley. Chichester
- EPPEN, G. D. – E. F. FAMA (1968): Solutions for Cash-Balance and Simple Dynamic-Portfolio Problems. *The Journal of Business* 41 (1), pp. 94–112
- FAZAKAS, G. (2000): *Vállalati pénzügyek (Corporate Finance)*. Tri-mester. Tatabánya
- FAZAKAS, G. (2004): *Vállalati pénzügyi döntések (Corporate Financial Decision-making)*. Tanszék Kft
- FELFÖLDI, J. – L. KOVÁCS (2011): A vállalati folyószámla-állomány elemzése (Analysis of the Corporate Current Account Portfolio). *Hitelintézetek Szemle (Credit Institutes' Review)* 2011/1, pp. 61–69
- GITMAN, L. J. – E. A. MOSES – I. T. WHITE (1979): An Assessment of Corporate Cash Management Practices. *Financial Management* 8 (1), pp. 32–41
- HAVRAN, D. (2008): The Effect of Financial Management Habits on Operating Capital. *Közgazdasági Szemle (Economic Review)* LV October, pp. 907–926
- HILLMAN, S. (2011): Notional vs. Physical Cash Pooling Revisited. *International Treasurer*, February
- Jansen, J. – W. de Gruyter (2011): International Cash Pooling: Cross-border Cash Management Systems and Intra-group Financing. Sellier. European Law Publishers, p. 307
- JÁKI, E. (2013): A pozitív és a negatív hírek súlyozása EPS előrejelzések készítésekor (Weighting Positive and Negative Information in EPS Forecasts) – Part I.– Theoretical Background. *Hitelintézetek Szemle (Credit Institutes' Review)* 2013/3
- KENESEI, B. (2013): Banki cash management megoldások a vállalati treasury szolgálatában (Bank Cash Management Solutions in Corporate Treasury). Corvinus University of Budapest. Thesis
- KILKELLY, K. (2011): Pall Corporation Approach to Managing Global Liquidity. Presentation. Online: <http://www.slideserve.com/jaguar/new-york-cash-exchange-2011-pall-corporation-approach-to-managing-global-liquidity> (downloaded: 10/06/2015)
- MADURA, J. (2010): *International Financial Management*. 10th Edition. Cengage Learning
- MILLER, M. H. – D. ORR (1966): A Model of the Demand for Money by Firms. *The Quarterly Journal of Economics* 80 (3), pp. 413–435

OXELHEIM, L. – C. WIHLBORG (2008): Corporate Decision-Making with Macroeconomic Uncertainty: Performance and Risk Management. *Oxford University Press*

POLAK, P. (2008): The Application of Cash Pooling into Business Practice – ČEZ Group. *Investment Management and Financial Innovations Journal* 5 (4)

SIDDALAH, T. (2010): International Financial Management. Pearson. Chapter 11

STONE, B. K. (1972): The Use of Forecasts and Smoothing in Control. Limit Models for Cash Management. *Financial Management*, 1 (1), pp. 72–84

VETTER, J. – C. SCHWANDTNER (2008): Cash Pooling under the Revised German Private Limited Companies Act (GmbHG). *German Law Journal* 9 (9) – HeinOnline Legal Factors, Problem of Lending

CMS (2013): Cash Pooling. CMS 2013 July

TAG – Treasury Alliance Group (2015a): Cash Pooling: A Treasurer’s Guide. Online: http://www.treasuryalliance.com/assets/publications/cash/Treasury_Alliance_cash_pooling_white_paper.pdf (downloaded: 06/06/2015)

TAG – Treasury Alliance Group (2015b): Cash Pooling: Improving the Balance Sheet. Online: <http://www.scribd.com/doc/82048744/Treasury-Alliance-Cash-Pooling-White-Paper#scribd>