

CASH AND WORKING CAPITAL MANAGEMENT IN THE CZECH REPUBLIC¹

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Abstract

This paper outlines the changing financial scene in The Czech Republic, which is following the global pattern of institutional investors taking over the role of commercial banks as relationship banking is gradually giving way to transaction-driven banking.

Investment-grade companies have become more reliant on direct financing and less reliant on intermediated financing. This is due both to reluctance by banks to extend credit facilities to high-grade corporates as they search for more lucrative returns on capital, and by the growth in the supply of capital by institutional and other non-bank investors. This growth in direct financing has been predominately in the form of unsecured and unregistered commercial paper issues. The relatively high Czech reference interest rates in the late 1990's influenced the development of company debt financing, forcing companies to become more sophisticated and dynamic in their use of debt instruments and hedging tools as they attempt to manage the subsequent interest rate risk.

The objectives of cash management are straightforward – maximise liquidity and control cash flows and maximise the value of funds while minimising the cost of funds. The strategies for meeting such objectives include varying degrees of long-term planning requirements. Also, like everywhere in the world, much treasury activity in the Czech Republic is concentrated on cash management. This includes financing the corporation, administration of debts (loans, bonds, commercial papers, etc.), good relationships with the banks, payments to suppliers and collections from customers, control of foreign currency and interest positions according to the company's needs for finance, and finally the reporting and technical support of all these functions. The use of cash pooling as a global standard for concentrating cash into the main bank account of the firm, has very quickly found favour in corporates in the Czech Republic.

Key words: Commercial papers, reference interest rates, banking sector, non-bank financial intermediaries, cash management, cash pooling.

JEL classification: F 30.

I. Introduction

As Polák and Kotora (2000) argued, over the past two and half decades, institutional investors in financial markets worldwide have begun to fill the role commercial banks have been gradually vacating. Costly mandatory reserve requirements and regulatory impositions have consigned bank credit to blue-chip companies to a decidedly uncompetitive position. Banks' added value remains in the case of credit facilities to low-visibility, privately-held or unseasoned corporates containing a high level of non-market, idiosyncratic risk, which the bank may be more adept at evaluating than institutional investors.

Although few relationship bankers would readily admit it, relationship banking is, little by little, giving way to transaction-driven banking, where transactions are approved on a case-by-case basis according to clear and unequivocal risk-return, ROE/ROA criteria. Faced by the continuing threats of disgruntled shareholders and hostile takeovers, banks have been making a concerted effort to curtail loan outstandings, particularly in the area of tightly-priced credit facilities for investment-grade clients with few prospects for auxiliary business. Banks are also more in-

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clined to invoke 'material adverse change' or other escape clauses in order to extricate themselves from unprofitable credit commitments.

The excess capital released from liquidated bank assets is often distributed to shareholders as dividends or stock repurchase proceeds. For example, in 1997 Barclays Bank repurchased 10 per cent of its outstanding equity. However, banks may continue to leverage their client relationships, acting in the capacity of facility arrangers, intermediaries and advisors, especially in the area of structured transactions. All these developments have prompted banks to devise financing structures that reflect where real liquidity resides today: with institutional and other non-bank investors.

Whether through securitization, asset decomposition, credit derivatives, collateralized loan obligations (CLOs) or secondary loan sales, debt assets (funding and/or risk) are being off-loaded by banks onto investment funds, insurance companies, pension funds and hedge/crossover funds as part of increasingly sophisticated transactions.

2. The rush to financial markets

Lately, the debtors themselves have been spearheading the rush to financial markets. As international banks scramble to cancel unused credit lines and raise rates and margins, premium-risk companies are bracing themselves for what the future holds. In lieu of bank credit, they are increasingly turning to fixed-income securities markets to meet such mundane requirements as working capital funding. A favourite instrument for raising short-term funds is the commercial paper (CP) programme.

In the Czech Republic, these global trends have been making themselves dramatically felt since the mid-1990s. As companies, banks and investors grew more sophisticated, experienced and transaction-driven, the cooperation of institutional and corporate investors was enlisted in order to secure financing for major corporate clients in increasing volumes across a range of maturities. In 1992, the banking community started introducing CP programmes based mostly on promissory notes to accommodate the working capital demands of some of their high-profile clients.

Because of the special status of promissory notes under Czech law in terms of legal protection in the event of default, this instrument is frequently applied as security in a wide variety of trade and financial transactions. Promissory notes are certificated, unlisted debt securities in bearer form. While prom notes remain beyond the reach of many regulated institutions (insurance companies, investment and pension funds are prohibited by law from committing their cash reserves to unlisted securities), their redeeming features include cost-effectiveness (no registration fees), flexibility, investor familiarity and absence of a Security Exchange (SEC) approval procedure. In comparison, CP programmes based on short-term bonds are more cumbersome due to a complicated, time-consuming and costly registration procedure.

While some domestic banks previously showed a tendency to warehouse most of the notes, downplaying the distribution aspect while seeking to appease the issuer, subsidiaries of international banks took a different approach. Instead of buying the notes for their own portfolios, these banks devoted time and effort to building distribution channels and gaining access to domestic and foreign investors, or in some cases utilizing existing placement capabilities of their parent. Reportedly, many of the notes issued under programmes arranged by foreign bank branches eventually wound up in the possession of international investors in various offshore vehicles.

3. Role of the financial intermediaries sector

The financial sector in the Czech Republic, as Polouček (2004) argued – as it applies to banking structure and non-bank financial intermediaries – is, by volume of its total assets, the most developed within the new 10 European Union member countries, and is continuing to develop rapidly. The banking sector controls more than 80% of the financial sector's assets. At the end of year 2004, its assets, as a proportion of gross domestic product (GDP in current prices), stood at 96% in the Czech Republic (99% in 2003), as opposed to 58% in Poland, 70% in Hungary, and 88% in Slovakia. Despite the recent dynamic development of the non-bank financial sector, the banking sector can be expected to continue its dominance of the Czech financial sector.

Non-bank financial intermediaries in the Czech Republic have started to play a more important role in the financial sector since the second half of the 1990s. Although the non-bank financial sector is displaying dynamic growth, it is still underdeveloped by comparison with the “old” EU-15. But relative to the other Central European countries, the Czech non-bank financial sector has a fairly high share, but here too there is considerable room for growth. At present, life insurers and pension funds together control about 13% of the assets in the financial sector and insurance companies, in particular, are among the key institutional investors in the Czech Republic. Česká pojistovna, a.s., the oldest and largest insurance company in the country and one of only few key financial intermediaries with purely Czech capital, for example, is one of the biggest local institutional investors in government and corporate bonds. Their progress is also aided by the Insurance Act of 1999 (amended in 2004 when the Czech Republic became part of the single European market), which allows insurance companies registered in the Czech Republic to invest in foreign securities, as well as domestic securities, registered at the public capital market in any member country of the European Union as well as OECD.

In the Czech Republic, there have been two important trends in the financing and banking sectors since the late 1990's: concentration and increasing competition.

The first area, concentration, has become characteristic not only for the banking sector, but for other financial intermediaries as well. As a result of mergers and acquisitions, the number of participants on the market has decreased, while at the same time, their size increased, either in terms of their equity capital, total assets, and turnover or market share. There is also a related process of concentration underway in the Czech Republic among private half-state owned banks, which are generally a consolidation with the daughter banks of their new investor, if they operate in the Czech Republic.

As shown in Table 1, since 2000, the process of concentration in the Czech Republic has been influenced by the privatization of the government's shares in four biggest banks. In addition to the sale of state shares in largest banks, there was the merger of Bank Austria Creditanstalt Czech Republic and HypoVereinsbank in 2001. The takeover of domestic banks by foreign owners has resulted in better services and attitudes especially towards corporate clients. Specialized client services have been improved, with the creation of specialized departments to serve their best corporate clients and expanding their dealing departments, which can now be more easily carried out in dealing offices in the home country headquarters (Amsterdam, Frankfurt, etc.), or directly in London.

Table 1

Development of concentration in the Czech banking sector

	1997	1998	1999	2000	2001	2002	2004
Number of banks in Czech banking sector	50	45	42	40	38	37	35
Average of total assets per 1 bank (bn. of CZK)	46.7	54.2	55.2	56.4	65.8	67.6	75.3

Source: Czech Central Bank.

A second trend is the strong competition of the banking sector, where Czech banks are forced to battle for clients from a line of top companies. The banking sector in the Czech Republic with its total assets and the breadth of its businesses services is by far the most significant in the new European Union countries of Central Europe. For example, the total assets of the Polish banking sector from 1997 to 2002 ranged between 75 and 120 billion euros, which is only about 50% more than the Czech Republic (Poland has 4 times the population). In Slovakia, total assets are three times less than the Czech Republic, in Hungary about half (in 2002), with a similar population. On the other hand, a lack of quality companies suitable for actively doing business with the banks has led to a price war in the late 1990's. This of course, has had a negative impact on bank profits, which are dependent on the interest rate difference between what they borrow and what they lend. Under these circumstances, the banks have had to transfer services for their most important business clients to the role of conciliator, just pairing the business lender with the business

borrower. This situation is characterized by increasing role of the profits from fees and commissions making up a greater share of overall profits during the current stagnation of low interest rates.

But there has also been a stagnation of total assets in the banking sector (see Table 2). This stagnation was brought about by introducing higher volumes of asset-neutral bank products. The role of conciliator was manifest in the set up and growth of Commercial Papers issue programs to secure short term financing for the clients, where banks are present in the position of dealers. This program for choosing quality businesses often or completely replaces the use of credit lines. To secure long term financing through bond issues for their business clients, banks have assumed the position of issue managers, meaning that they secure placement of the issue on the market, prepare documentation, and obtain the appropriate regulatory permission. Another evolution has taken place in the provision of long-term investment credits in the Czech banking sector. In this branch, development is characterized by the apportionment of large credits. This means that, instead of providing large credits that could be very risky, individual banks work more as coordinators to obtain large credits from among banking groups. Depending upon the number of banks, we can describe them as club or syndicate loans.

Table 2

Advancement in volume of total assets in the Czech banking sector, in billions of CZK, as at the end of the respective year

	1997	1999	2001	2002	2003	2004
Total assets	2,335	2,317	2,500	2,503	2,527	2,637

Source: Czech National Bank (CNB).

The trend of growing profits from fees and commissions, are, as was mentioned, an effort on the part of banks to change the profit structure of banking activities, where a deciding role is still played by profits made on interest, and whose development is strongly dependent on the overall level of interest rates. Profits from fees and commissions, which banks can use to influence the active pricing policy, are almost exclusively determined by the operations of the client, and are for the most part assets-neutral. On the other hand, operations at other banks via the inter-bank market, including the Czech Central Bank, are, in terms of profits made from fees and commissions, loss-making. Almost three quarters of profits made from fees and commissions in the years observed were made by the 4 largest banks, which reflects the breadth of their business clients.

Table 3

Advancement in volume of total assets and profitability in the Czech banking sector, in billions of CZK, as at the end of respective year

	1997	1998	1999	2000	2001	2002	2003	2004
Total assets	2,335	2,440	2,317	2,255	2,500	2,503	2,527	2,637
Profit from financial activities	87.4	96.9	90.3	77.3	89.4	92.6	89.8	104.4
from that: interest margin	49.7	66.0	58.3	50.6	56.9	56.1	56.3	56.4
from that: fees, commissions	11.7	12.9	14.6	17.2	21.0	23.8	26.3	31.3

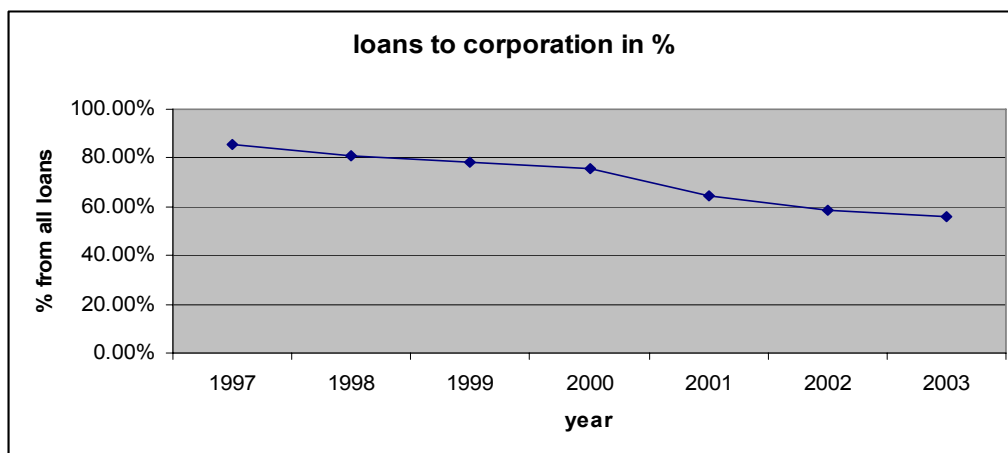
Source: Czech Central Bank.

Last but not least, it is important to mention the growing sophistication among the treasurers (especially in the biggest corporations – members of the Czech Association of Corporate Treasurers, CAT), and their rising requirements towards the banking sector and other financial

intermediaries. This has in the recent past placed pressure on the creation of tools that are tailored to meet business needs, especially in terms of maturity, yield, the currency involved, and the amount of the instruments involved.

Another development observed is that bank loans to corporations are stagnating (see Figure 1). The stagnation in loans to corporations stems chiefly from the banks' cautious approach to lending, which in turn derives from their negative experiences in the past. When it comes to lending, banks prefer creditworthy corporations. They do not encounter enough high-quality business plans on the market suitable for efficient financing and they do not have enough transparent information to assess the creditworthiness of some customers. Corporations' financial condition, as characterized by profitability, indebtedness, sales opportunities and other factors important for assessing creditworthiness, is showing only patchy improvements. In the case of foreign-controlled corporations, the availability of funds from parent companies or foreign based banks may also be playing a role in the limited supply of credit.

A major change has been occurring recently in the banking sector's loan portfolio structure as a result of buoyant growth in loans to households and financing the government debt via purchase Czech T-bills (with maturity up to 1 year) and T-bonds (with typical maturities between 2-10 years).



Source: CNB.

Fig. 1. Advancement in volume of loans provided to the corporate clients of banks licensed in the Czech Republic, in % of total loan's volume

As elsewhere around the world, there has been a significant development of so called financial conglomerates in the Czech Republic. They are led, as a rule, by banks (in one case by the insurance company, before mentioned Česká pojistovna, a.s.) that are already part of supranational financial groups. These financial groups generally comprise a bank, plus insurance company, pension fund, investment company, building societies, unit trusts, leasing company, a factoring company, etc. In some cases, such companies are among the most significant on the relevant domestic market.

The legislative changes, passed in 1999, allowed for the reserves of Czech insurance companies and pension funds to be placed on foreign (limited to the OECD countries) money and capital markets as of April 2000. Despite that, a predominant share of such funds was placed domestically, making especially the biggest life insurers the most significant investors on the Czech financial markets. These companies also remained, despite the possibility of investing in foreign securities, the most important investors in Czech corporate bonds, government and bank bonds, as well as T-bills.

4. Legislation framework

The legal norms of this case are established in the Bonds Act, number 530/1990 Coll., and the Promissory Notes and Cheques Act, number 191/1950 Coll.

The issue of commercial papers can take place in two ways:

A) Short-term bonds issues programs, in accordance with the Bonds Act, where the issuer can ask the SEC to approve the terms of issue, which should be the same for the previously undetermined number of bonds to be issued. In his request, the issuer is required to set the maturity of the bond program and the highest volume of outstanding bonds delivered within the framework of the program.

In the event that the issuer wishes to deliver the securities in accordance with the Bond Act, he must, with respect to §2, request that the SEC approve the issue terms of the bonds, bond prospects, and bond marking with an International Securities Identification Number (ISIN). In approving the bond program, the SEC commits to impose a plenty of fees on the issuer, and undertake a relatively long term approval process – the Bond Act requires the SEC to issue a decision of the terms of issue and prospectus within two months of the application.

B) Unsecured short-term promissory notes issue program, in accordance with the Promissory Notes and Checks Act. The program is not subject to the regulatory and fee imposing control of the SEC.

Just as with the issue of Euro commercial papers, Czech issues of so called dealer's commercial papers, in accordance with the Promissory Notes and Checks Act, are required to:

- sign a mandate letter with the dealer-bank for the provision of legal and economic inspection (so called due diligence) of the issuer, as well as a dealers contract and paying agency contract;
- prepare and publicise an information memorandum for the investors with the dealer-bank.

This process is much less time and money consuming than the short-term bond programs. In the Czech Republic, a dealers contract is signed, as is paying agency contract and information memoranda agreement normally within 3-4 weeks of the signing of the mandate letter. Under Czech conditions, almost all commercial paper issues have so far been carried out as promissory notes in accordance with the Promissory Notes and Checks Act. The main reason for the effort is to avoid the relatively expensive and complicated approval process set up by the SEC.

This parallels the trends seen in the 1990's in the largest commercial papers market in the world, the United States of America. Over the past few years, the majority of programs were not registered with the Securities and Exchange Commission. It addressed three categories of commercial papers. Section 3 (A) (2) Paper, Section 3 (A) (3) Paper, a Section 4 (2) Paper. These issue programs must be secured with back-up credit facilities, or bank guarantees. In addition, the market is used to having issuers of such non-registered commercial papers on the American market rated by one of the two biggest rating agencies (S&P, Moody's).

Among the most notable past issuers on the Czech market have been companies from the utility and telecommunications sectors as well as companies with strong foreign owners, such as e.g. Unilever and Coca-cola. At the same time, there are only a few dealers for such programs coming from the ranks of important banks operating in the Czech Republic. Almost all issues have been made by CSOB, a.s. from Belgian KBC group, the Prague branch of ING Barings, Credit Lyonnais Bank Praha, and Komerční banka.

It must also be noted that, although it is not a condition here as it is with non-registered American and Euro commercial papers, issues in the Czech Republic are made with back-up credits equal to the amount of the bond issue. These credit facilities serve to ensure short-term liquidity, and for refinancing the issued papers. This sends a strong signal to the investment community that the issuer will not have a problem paying the nominal value of the bill at maturity.

In concluding this section, we can see that the original intent of the lawmakers for issuing commercial papers according to the Bond Act has come to naught. The main reason is the time and expense incurred during the approval process. On the other hand, the market itself limits the issue of commercial papers according to the Promissory Notes and Checks Act, with the strict require-

ment for the issuer to have a top credit rating. It has to be said that, even when we are talking about unsecured commercial papers, issuers are limited to top companies, better yet, those with quality foreign owners. On top of that, most commercial paper issues are carried out through back up credit facilities provided by the best banks on the Czech market.

5. Influence of the reference interest rates evolution on corporate sector

Unlike the relatively stable rates of Eurozone markets, the Czech Republic has in recent years experienced a precipitous decline in the inter-bank rate PRIBOR. During the period of relatively high interest rates (1997 and 1998), Czech companies scrambled to find alternative sources of financing to be able to avoid expensive short- and long-term bank loans. The range of alternatives included CP programs for short-term and bonds for long-term financing – see Table 4.

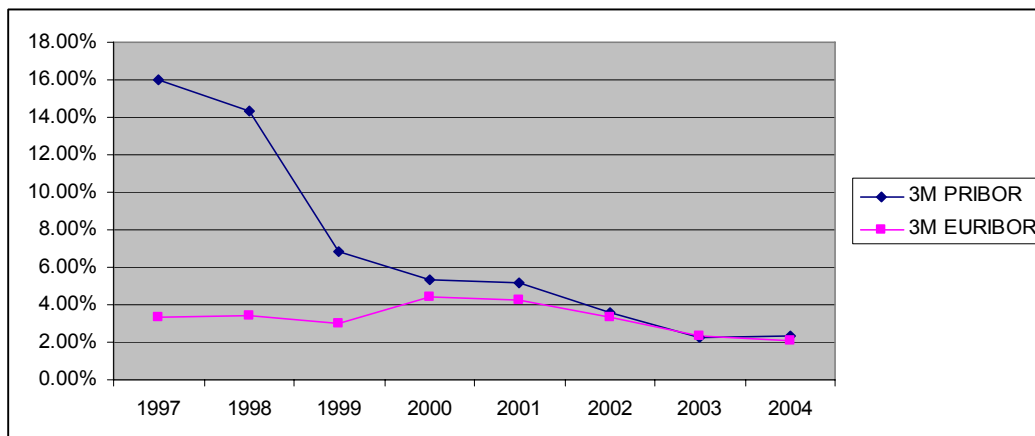
Table 4

Advancement in volume of non-bank corporate bonds (in nominal value) registered at the Prague Stock Exchange, in billions of CZK, as at the end of respective year

	1997	1998	1999	2000	2001	2002
Corporate bonds in NV	8.65	17.95	40.00	53.01	53.04	57.04

Source: Reuters, ABN Amro Bank N.V.

As Figure 2 illustrates, the reference interest rate in the Czech Republic declined sharply since 1997. As a result, Czech corporations were forced to operate in a relatively unstable interest rate environment until 2000, in comparison with their Eurozone counterparts. The average 3-month Dutch AIBOR (since 1999 the EURIBOR, as a result of the introduction of the Euro currency) is presented for comparison.



Source: CNB, De Nederlandsche Bank N.V.

Fig. 2. Comparison of the development of the 3M reference interest rates for Czech and Dutch (i.e. since 1999 Eurozone) markets, yearly averages in % p.a.

As Polák [2005] argued, the unstable interest rate environment at the end of the 1990's forced Czech businesses to choose differing strategies during periods of high and low interest rates, and even expand the tools used to eliminate risk caused by such interest rate variation. During periods of relatively high reference rates (particularly 1997 and 1998, and in terms of EURIBOR rates, even 1999 and 2000), businesses seeking financial resources looked for alterna-

tives to short and long-term credits. In the Czech Republic, such alternatives include most notably, commercial papers issues for short and mid-term financing. For long term financing, there are alternatives to loans, namely the issue of corporate bonds.

6. Cash management within the Czech treasury

The objectives of cash management are straightforward – maximise liquidity and control cash flows and maximise the value of funds while minimising the cost of funds. The strategies for meeting such objectives include varying degrees of long-term planning requirements. Also, like everywhere in the world, much treasury activity in the Czech Republic is concentrated on cash management. This includes financing the corporation, administration of debts (loans, bonds, commercial papers, etc.), good relationships with the banks, payments to suppliers and collections from customers, control of foreign currency and interest positions according to the company's needs for finance, and finally the reporting and technical support of all these functions. The use of cash pooling as a global standard for concentrating cash into the main bank account of the firm, has very quickly found favour in corporates in the Czech Republic. A precise statistics: according to a survey prepared by the Czech Association of Corporate Treasurers (CAT) and Ernst&Young in 2006 – 65% of the companies organized in the CAT use cash pooling, 47% use cross-border cash pooling, and 35% multicurrency cash pooling.

Globally, cash pooling is a bank product that enables a group to collect money and use it for either further investment or lending. The product is available to companies, which are part of a group of economically related parties. (We can't use the word 'concern' because the Czech codes do not recognise this word in a legal sense.) Related parties are business entities that are related by share ownership. For cash pooling business, it is necessary for them to sign a collective agreement to operate a so-called major (master) bank account. Other bank accounts are settled toward this master account. There could be an overdraft agreement with a bank, but this is not possible for either a master account or the other bank accounts in the pooling system. Nevertheless, credit or debt interest rates have to be defined for all accounts. There has to be an agreed level of interest rates between the bank and the companies involved in the cash pooling system and between those each of those companies, too.

Treasury in the Czech Republic is a very young area of the finance management of corporations, and its position is being gradually developed. The evidence of this fact is reality that no expression has been found yet in the Czech language which would present a real equivalent of the English word. Significance of the Treasury function increased especially after the CZK (Czech Koruna) turbulences (fortunately short-lasting) in May 1997, when a number of important companies had several problems, as before then the assurance of currency and interest risks had been rather exceptional specialised. Since 1997 Treasury departments have started to arise as, professionals have been an active in the finance management of corporations, so that the importance of Treasury has been developing. Companies started to use forex and interest rates hedging tools.

As the Czech economy heavily depends on foreign trade – exports and imports together reach more than 110% of the GDP, mostly with the Eurozone countries, especially the exporting companies had to adjust their approach towards hedging instruments by reason of reinforced CZK. The most frequently used product in the FX assurance is the currency forward which, thanks to its low interests differential, offers a possibility to hedge export or import FX needs. The market with currency options started to developed at the CZK in the last 8-9 years. At the beginning the plain vanilla options were traded above all, gradually the offer was extended as barrier and exotic options were offered, too.

To hedge the interest risks operations FRA and IRS are being exploited generally, plus instruments based on the interest rate options, such as cap and floor, or IRG. A relatively high volatility of the reference interest rates has influenced enormous progress in using such tools since 1997.

Banks in the Czech Republic as in the most other European Union member countries generally offer the following types of cash pooling:

- real (zero-balancing) cash pooling

- fictive (notional) cash pooling
- multicurrency cash pooling
- cross-border cash pooling
- multicurrency cross-border cash pooling

Real cash pooling

Real cash pooling is based on a transfer from bank accounts to a master account, with balances on all bank accounts except the master account being zero at the end of the working day. It means this money physically ‘moves’ from the junior accounts to the master account.

Notional cash pooling

Notional or fictive – because money stays in bank accounts and the calculation of interest rates is based on fictive consolidated credit or debt bank balances. There is no money transfer between accounts of the companies involved in fictive cash pooling.

Multicurrency cash pooling

Bank account balances in different foreign currencies are swapped to one agreed currency, which is the base for the interest rate calculations.

Cross-border cash pooling

Cross-border cash pooling helps corporations avoid the bureaucracy intrinsic to transferring cash across countries and different clearing systems, as well as different legal entities and the headache associated with additional intercompany loan administration. While there is a selection of solutions in the marketplace, most of these operate on an interest enhancement basis where corporations are rewarded for servicing their liquidity through their chosen bank, but the bank is unable to achieve balance sheet offset due to the complexity of multiple jurisdictional and regulatory barriers. Czech banks now offer cross-border pooling, both notional and real, for accounts in domestic Czech koruna, euro, US dollar, Central European currencies (such as in Slovak koruna, Hungarian forint) and pound.

Multicurrency cross-border cash pooling

Multicurrency cross-border pooling is not normally offered by the Czech banks; all accounts in different countries must be held in the same currency. We know only one company – a Czech pharmaceutical company Zentiva, that implemented multicurrency (CZK, EUR, USD) cross-border cash pooling structure in 2005 with a centre in the Czech Republic (Citibank in Prague) for its daughter companies from the Czech Republic, Slovakia, The Netherlands, Romania, and Cyprus.

From our point of view, these principles are used both in the Czech Republic and in the rest of Europe, and are therefore similar; any differences are the result of the legal requirements of each country. As mentioned above, the Czech Commercial code does not recognise anything like ‘concern’ or a product like cash pooling. It is necessary to fulfil several conditions to prevent problems concerning taxation and reporting to minority shareholders. It is practically impossible to implement a cash pooling agreement between companies without a majority share. It is normal practice that a cash pooling system has to be agreed by a general meeting of the company and there is a strict requirement for signed control agreements. Sometimes it is necessary to change the company articles of incorporation.

7. Two viewpoints to assess the effectiveness of the cash pooling

The first possible viewpoint is a viewpoint according to the type of company where the cash pooling system is to be used. The first case is use within the scope of one company with a number of individual organizational units (plants), where pooling enables effective management of financial means even during a requirement for decentralisation of the organisational units. The second alternative is use within the scope of a holding company with independent accounting units

– companies in the group. Here pooling makes management of finances more effective from the accounting and administrative aspect from the beginning of separated units.

The second viewpoint of the use of pooling is according to the initial purpose. From this aspect it is possible to divide pooling into pooling for associating cash and into pooling for making financing more effective. The first use accents the improvement of the possibility of investing free financial means during a greater volume of these. The second alternative is the possibility of use of the free resources of one unit for financing of other units without bank loan costs.

Which independent companies actually use cash pooling? These are any companies, which require that financial management of organizational units is kept separate and fully transparent. Also such companies that base their assessment on the realized cash flow of organizational units. An example would be the FMCG companies, industrial companies within individual plants or financial institutions with regional branches such as insurance companies for instance. Each such company must determine the degree of independence of its organizational units. Independence can be complete within the scope of an annual plan in the sphere of income and expenses. Or independence is limited in the sphere of expenses by a certain annual budget and in the sphere of income by the task of achieving the planned cash flow (the most usual case).

8. Pooling structures

The used type of pooling structure is determined according to this differentiation. Within the scope of one company and one country the most effective system is zero balancing because it performs complete centralization of financial means. If the individual branches fulfil simply the income part of the budget and expenses are centralised, it is suitable to perform transfers in only one direction. Single-direction zero balancing is the system most used. With regard to the overdraft limit in this arrangement then this is not allocated on the level of individual accounts (organizational units) and usually serves only on the master account level for covering cash flow deviations. If the branches are not an income but a cost centre, it is suitable to enable either drawing of an overdraft limit from their accounts or to subsidise them by a certain sum each day. If costs are approximately the same every day it is appropriate to use dual-directional pooling with retroactive transfer of the defined amount of the daily budget. This arrangement can also be used during management of branches governing income and expenses, if expenses fulfil the requirement of stability. In this arrangement we do not allocate an overdraft limit on the level of the individual account. Management of branches issues from the determined daily budget. The overdraft limit on the main account serves for the purpose of the centre and for cases of non-coverage of expenses of a branch by income from elsewhere.

In cases of cost branches, which have variable expenses during a measure of days, but stable expenses within the scope of the month, it is possible to select from several various arrangements. One alternative is to transfer the whole volume of the monthly budget to a secondary account and monitor the volume of submitted payment orders in the centre (must be monitored by the company information centre). The second alternative is to enable the individual account to draw an overdraft of up to the sum of the monthly budget. And again the company information system must monitor either the volume of submitted payment orders (the more complicated alternative) or the volume of transfers from the top account to the secondary account. This alternative is also offered by some banks within the scope of real pooling. Their system enables automatic monitoring of the cumulative volume of transfers between the top and individual account and if the overall cumulative limit for drawing is exceeded, does not allow drawing of an additional overdraft. If the branch expenses are various even from month to month it is possible to resolve this problem by regular modifications to the sum of the overdraft limit month by month. In these cases the overdraft limit of the main account is delegated to individual accounts and its sum does not have to exceed the sum of limits of individual accounts. It is appropriate to modify the settings of the individual overdraft limits according to the updating of the annual plan of expenses.

In the event that the organizational unit governs income and expenses a combination of the mentioned approaches is necessary. The simplest method is the alternative of profit centres, when expenses must be covered by the own income of the unit. Subsequently the most suitable solution is dual-directional pooling with retroactive transfer of the transferred balance. For better

coverage of the cash flow the branch may be set an overdraft limit. If the branch has limited stable daily expenses the already mentioned alternative of retroactive transfer of the target sum is appropriate. If we wish to limit the variable expenses and the branch also has a set income, then it is appropriate to plan the acceptable negative difference within the certain period between income and expenses and to enable cumulative drawing of an overdraft for this amount during the course of the period.

All the above given types of use of pooling allow for pooling in one currency. This is the most usual type because conversion operation costs do not exist. Pooling with conversion usually also brings such great expenses that it is not worth it for larger amounts. Consequently it is better to divide organizational units so that they work with the smallest possible number of currencies (with a minimum of accounts). If they work with multiple currencies it is appropriate to again structure each currency according to the responsibility and character of income and expenses of the given branch as was mentioned above.

9. Pooling within a holding structure

Naturally international companies use cross border pooling and associate liquidity in individual currencies in their nostro accounts serviced by the central treasury of the company. Use in the case of holding companies is more complicated particularly as a result of the legal problems which exist in the Czech (domestic) environment and for reasons of greater decentralisation of information and functions than in one company. On the other hand the range of purposes for which cash pooling can be used is expanded by tax optimisation, in-group financing according to the rules dictated by the owner and not the bank and in-group risk management thanks to netting positions in individual currencies.

Cash pooling used within a holding is based in the acquired controlling share in subsidiary companies. Individual participants of the pool may have, but do not have to have, mutual financial flows. However their existence makes use of the pooling structure more effective, if mutual settlements are performed within the scope of one bank and one pooling. The central treasury may in such cases take two different standpoints.

Either it can completely omit management of in-house receivables and payables and monitor only external positions, because in-bank transfers do not change the overall position of the pool. Or the second possibility is decentralisation of settlement of in-group items, when all in-group payments are initiated by a centre. This naturally also performs potential netting of payments by means of setting off.

The highest level of centralisation: in-company bank

The highest level of centralisation is arrangement of the cash flow within the scope of an in-company bank, which maintains accounts of individual companies and performs operations on the internal accounts of these companies. The whole company has a single account for external relations. This naturally minimises costs for the whole administration of current accounts and payment orders. Of course the relevant account exists for each currency and is situated in its home country so that the best conditions for domestic payment relations and the best conditions for storage of excess or drawing loans is achieved. All company accounts are placed with a single worldwide financial institution so that the fastest possible international coverage of financial needs is possible. Of course multiple accounts may be used for some currencies if establishment of these reduces costs (see for example Single European Banking Market).

The problem of individual subsidiary companies or plants is resolved by a system of identification symbols for individual organizational components. The internal treasury system then maintains imaginary internal accounts for individual divisions or subsidiary (affiliated) companies and performs all in-company or in-group settlement simply by transfer to these imaginary accounts. Consequently a significant amount of bank fees for payment orders is saved. This concept is completely logical and truly maximally economic. On the other hand in the Czech Republic and elsewhere it encounters legislative restrictions. In the case of one company this does not yet concern such a great problem. However in the case of administration of accounts of independent sub-

jects by an internal bank this centre has the attributes of a bank. It maintains accounts, accepts deposits, provides loans and performs spot, timed and other derivative operations. Consequently according to Czech legislation it should fulfil all the requirements of a bank including a license from ČNB (The Czech central bank). In this case it is necessary to establish or purchase a banking institution and create an in-company bank on this basis. This model is applied by some large global (Allianz insurance group) and Czech (PPF group) companies, particularly those that also provide financial services to clients.

Notional pooling

For reasons of problems with Czech legislation the most often used pooling system within the scope of a holding is notional pooling and dual-directional balancing with retroactive transfer of the same amount. As we have already stated notional pooling enables simple compensation of credit and debit remainders and its advantage is the non-existence of any mutual loans, consequently agreement by the General Meeting or modifications to Articles of Association are not necessary. All transactions are only imaginary and in-group receivables and payables do not occur. On the other hand some banks do not wish to provide notional pooling with overdraft frames to holding companies, for reasons of the impossibility of netting of notional pool positions, which cannot be contractually determined either. The problem would occur in mortgage contracts in the state of accounts of others, which is variable. If one company drawing an overdraft limit became bankrupt, the bank could only involve this company. Even though thanks to introductions of cross defaults into contracts for loans of other companies it would be possible to partially involve other members of the holding, the bank would never be restored from the resources of other subjects (naturally with the exception of mortgage of other assets of the remaining companies, for example payables). Cross default would only mean the option of declaring financial means of other companies due payable. The second problem is the problem of bank expenses connected with holding credit remainders such as statutory minimum reserves and the fund for insuring deposits. Because in a notional pool it is not possible to net positions, the bank 's expenses for pooling are increased by these items. However the higher level of management is zero balancing. Thanks to the overall viewpoint of the group of holding accounts this leads to much more effective administration of money. The advantage for the bank is monitoring of only one loan exposure.

10. Internationalization

International cash pooling, as has already been mentioned, is any pooling when transfer of financial means occurs over country borders. The main difference compared to standard national pooling is the need to work with nationally determined exchange rules and rules for payment relations. Furthermore it is necessary to deal with the matter of transfer quality, speed and costs between individual countries. Thanks to its complexity and the fact that it is fairly costly international cash pooling is only worth it for greater amounts. In spite of this most international corporations use it and treasuries of international companies in the Czech Republic regularly encounter it. The most usual type of international pooling is real pooling and single-directional pooling. Controlling companies usually prefer real centralisation of resources and their re-division by means of centrally secured payment of deliveries. In-company loans, which occur within the scope of real pooling are subject to central management and settlement in international companies.

The following situations may be considered for notional pooling and zero balancing (8 alternatives):

- Czech Holding, subsidiaries in Czech and other countries, cash pool in Czech
- Czech Holding, subsidiaries in Czech and other countries, cash pool in other country
- Czech subsidiary, holding in another country, cash pool in Czech
- Czech subsidiary, holding in another country, cash pool in other country.

All these situations are legal according to the Czech law, all work in practice (especially situations number 1 and 4). From the neighbour countries, there are only legal restrictions for cash pooling in Poland, i.e. the Czech holding companies can't connect to their cash pooling structures Polish subsidiaries.

11. Finding an international treasury centre

In 2005 a Master student Miss Lenka Šimková under the direct supervision of one of the authors (Polák) of this article solved a case study how to find an international treasury centre for a holding company (CGS) with headquarters in the Czech Republic that has previously established cash pooling on a national basis in three currencies, three banks and three structures. It has subsidiary companies in 12 countries – in Europe (eight European Union countries + Switzerland), North (the United States) and Latin (Brazil, Mexico) America. The company wishes to expand cash pooling on an international basis and is searching for a suitable site for locating its treasury centres. The company has decided to only pool within the Eurozone. This means countries such as the United States, Brazil or Mexico cannot be considered as possible solution alternatives. That means the choice where to establish the treasury centre was between the following countries: Austria, Finland, France, Germany, Ireland, Italy, Slovakia, Switzerland, and the UK. The target was to locate the treasury centre in a country that enables the best conditions for cash flow controlling and administration.

The treasury centre should be located in a tax advantageous place. The fee for maintaining an account, transaction fees and prices for foreign incoming and outgoing payments, including urgent payments, should be as low as possible. The offered yield from excesses should be as high as possible.

Setting of criteria

Criteria resulted from a target requirements are as follows (Šimková, 2005):

- Bank transactions fees – to minimize
- Prices for foreign incoming and outgoing payments (including urgent payments) – to minimize
- Withholding and corporate tax – to minimize
- Withholding tax for intra-group yield – to minimize
- Reporting requirements – to minimize
- Rating – as good as possible
- Currency environment – preferably the euro, but pound or Swiss franc should not be a problem
- Treasury centres – existence of an important treasury centre (this is a very important requirement, because the true cross-border cash pooling remains a rare commodity in the marketplace today as banks have struggled to fully understand and manage these issues)

We found, testing all the criteria, that the best variant is to establish the treasury centre for cross-border cash pooling in Switzerland, followed perhaps surprisingly by Finland.

12. Conclusion

Evolution in Czech corporate debt financing been driven by changes in the requirements of suppliers of capital, with institutional and other non-bank investors replacing traditional banks. Investors have become increasingly sophisticated, favoring less regulated instruments. Increased volatility in the reference interest rate at the end of 1990s has also influenced capital raising decisions, and increased the use of hedging instruments to manage the resulting interest rate risk.

Also noticeable is a fact that non-bank financial intermediaries in the Czech Republic have started to play a more important role in the financial sector since the second half of the 1990s. Especially important is the role of insurance companies in financing government, and corporate debt from their life insurance technical reserves.

In the Czech Republic, as with most countries around the world, cash management is one of the most extended treasury department areas. These activities comprise corporate finance, debt administration (loans, bonds, commercial paper and the like), good banking relations, payments systems to suppliers and collections from customers, controlling foreign currency and interests positions to meet the company's needs, and the technical and reporting support of the above mentioned areas. Cash pooling has very quickly become a part of the Czech corporation's conscious-

ness. Beside domestic notional and zero balancing cash pooling, Czech banks now offer cross-border pooling, both notional and real, for accounts in certain currencies.

References

1. Czech National Bank. 'Annual reports 1997-2004'. Praha.
2. Czech National Bank. 'Annual reports on banking supervisory activities 1997-2004'. Praha.
3. Czech National Bank. 'Banking sector stability report'. Praha 2004.
4. Czech Insurance Association. 'Annual report 2003'. Praha 2004.
5. De Gidlow, R. and Donovan, S. (2005): 'Cash Management Techniques', in ACT's The Treasurer's Handbook, ACT, London.
6. Eckett, S. and Jenks, P. (2001). 'The Global-Investor Book of Investing Rules.' London: Harriman House.
7. European Central Bank. 'The monetary policy of ECB'. Frankfurt am Main, 2004.
8. Heezius, D. and Polák, P. (2005). 'Country Guide: The Czech Republic'. in ACT's The Treasurer's Handbook, ACT, London.
9. Hlušek, M. (2002). 'Estimating market probabilities of future interest rate changes'. CNB working paper series.
10. Polák, P. and Kotora, F. (2000). 'Funding Working Capital in the Czech Republic', Treasury Management International, pp. 23-25.
11. Polák, P. (2005). 'Appreciation of the Impact of the Development of Financial Markets on Financial Decisions made by Corporations in the Czech Republic', Investment Management and Financial Innovations, pp. 8-17.
12. Polák, P. and Swagerman, D. (2003). 'The Financial Markets in The Czech Republic and The Netherlands – Compare and Contrast', Treasury Management International, pp. 22-27.
13. Polouček, S. (2004). 'Reforming the Financial Sector in Central European Countries'. London: Palgrave Macmillan.
14. Sigmund, V. (2004). Internal materials of the Czech Association of Corporate Treasurers (CAT).
15. Šimková, L. (2005). 'Finding International Treasury Centre for the joint-stock company CGS Praha'. Seminar work. VŠB – Technical University of Ostrava.