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NET CURRENT ASSETS IN FEASIBILITY STUDIES

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Net current assets consist primarily of cash, marketable securities, receivables and inventory. The balances in these accounts can be highly volatile as they respond quickly to changes in the firm's operating environment. Medium-term planning and immediate reactions to changes in forecasts and conditions are required for effective management of the net current assets. Net current assets management is the functional area of finance that covers all the current accounts of the firm. It is concerned with the adequacy of current assets as well as the level of risk posed by current liabilities. We can say that net current assets management is a discipline that seeks proper policies for managing current assets and liabilities and practical techniques for maximizing the benefits.

Key words: net current assets, feasibility studies, cash, receivables, inventory, current liabilities, payables.

INTRODUCTION

With this article we tried to underline the critical importance of net current assets management strategies to the success of the corporation. Net current assets are current assets minus current liabilities or in the other words all the short-term assets used in daily operations.

Good net current assets management means good business. It is essential as an element in maintaining daily liquidity. Sound net current assets management also affects the ability to finance.

An approach to the subject of net current assets management can take two entirely separate paths. On the one hand, significant contributions to efficiency and the improvement of yield on investment can be made by careful technical analysis and management of the "micro" aspects of net current assets: cash, receivables, inventory, and other current asset accounts. Optimal management of each of these individual asset categories requires a full-time, professionally managed staff, dedicated to the implementation of cost-effective, analytical, and procedural techniques. This managerial focus on the elements of net current assets as individual assets (each

requiring specific, frequently unrelated, management techniques) is vital to the effective tactical (or micro) management of net current assets.

In the first section, we will attempt to outline some of the processes and procedures that should be reviewed in evaluating the adequacy of micro net current assets management strategies within any firm. Special attention given to the concepts, techniques, and procedures offered for each major asset category should form the basis for review of the management of that individual asset.

The operating divisions of a firm spend and require net current assets. Because decisions of line managers affect cash needs and inventory levels, there is an interrelationship between business decisions and the efficient management of individual assets. Optimizing that relationship through "macro" net current assets management is discussed in the second section.

1. MICRO CAPITAL MANAGEMENT STRATEGIES

Cash whether in the form of coin/currency, demand deposits in banks, or income earning marketable securities - represents the short-term financial assets of a company. Excess cash is that portion of cash not currently required to meet today's needs.

Theoretically, a profit-maximizing company would hold exactly enough cash to fund its daily cash requirements. Such a firm would hold no excess cash in the form of marketable securities unless the income earned on these investments exceeded the cost of capital[1]. Since the return on operating assets is usually greater than the return on financial assets, any financing assets held above those necessary to fund today's disbursements would decrease that firm's return on assets (ROA).

Practically speaking, the level of cash and marketables that a company chooses to maintain is a function of its financing philosophies, business risk, asset size, financial strength, growth plans, and its ability to forecast cash flows (especially in the short term). However, no income-producing cash balances should be targeted to meet the minimum balance requirements agreed upon with a bank as remuneration for certain services. All additional cash should be invested in income-producing securities with maturities structured to provide necessary liquidity.

Financing philosophies and goals should be clearly defined so that financial management can design cash management systems to effect these goals[2]. For example, a firm in a high growth industry exposed to technological risk could choose to adopt a more conservative financing philosophy that would allow it to take more operating risks than a company in a mature or declining industry. In such a case, the high tech company could choose to keep more cash on hand from the proceeds of equity or long-

[1] Jack Clark Francis, Investments – Analysis and Management, Fifth Edition, McGraw-Hill International Editions, Finance Series, 1991.
[2] John J. Hampton, Financial Decision Making – Concepts, Problems and cases, Fourth Edition, Prentice Hall, 1989.

term debt offerings to weather unforeseen operating circumstances or changes in the financial markets. A company in a mature or declining industry could choose a minimum of cash on hand with short-term cash requirements met through short-term borrowing.

Companies that have a strong financial position and are capable of borrowing at favourable rates in most markets can afford to maintain a lower level of cash and cash equivalents than firms that are more leveraged or are perceived as weaker credit risks.

The more centralized a cash management system is, the easier it is to minimize idle cash in the system and to maximize the cash available for investment or disbursement. An effective cash management system should be designed to integrate as much as possible all the cash flows of the company, including its subsidiaries, divisions, and decentralized sites, both domestic and international. This integration should also work to achieve the most efficient use of the available cash in the total corporate systems, avoiding idle balances and instances where one entity is borrowing externally while another is investing excess cash without a financial benefit to the company as a whole.

Cash management policy is the issue. Efficient cash management includes concentration of all balances daily and centralized control of the processes of investment, disbursement, collection, lock box, and so forth.

In conducting a review of a company's cash management practices, the following areas should be examined.

Bank Accounts The number of corporate bank accounts should be kept to the absolute minimum necessary to economically transact the company's business. Obviously, the more accounts the firm operates, the higher the risk that there will be idle cash in the system. The company should maintain a central corporate account. When balances in other accounts reach prescribed trigger levels, their additional balances should be transferred to the central corporate account.

The accounts should be funded so that balances and transaction costs are minimized. There are trade-offs between "compensating balances" and fees for services. Bank balances should be equal to any balances required for bank compensation. The corporation should minimize costs by using lock boxes, negotiable bank services, and concentration accounts.

Bank Relations Most banks prefer to be compensated for services in balances. These balances are usually more expensive to a company than if the same services were paid for in fees. The use and amount of compensating balances should be reviewed frequently to determine if payment in balances is more costly to the company than other uses for company cash. If compensating balances are too costly, they should be renegotiated with the bank.

Collection and Disbursements Incoming receipts need to be captured and made available for corporate use as quickly as makes economic sense. While cash is defined at first glance as currency and deposits available for current disbursements, at second glance we can see that the cash cycle begins when a payment is initiated by a customer or debtor and enters the collection system. By minimizing the collection period of these funds, the corporation speeds the cash available for investment or disbursement and reduces the opportunity cost of those uncollected funds[3].

The company should study carefully where to place its lock boxes. A worldwide system of lock boxes can have a still greater impact on speeding the receipt of collections.

Disbursements clearly must be made when due or in time to take advantage of meaningful discounts. Where opportunity for a meaningful discount does not exist, disbursements need to be made so as to maximize the collection time within the bounds of good business practice. There are numerous ways to increase the amount of time between initiating a payment and actually funding it out of cash balances. Many of these techniques, however, are considered poor business practice and should be avoided.

Intracompany Payment Terms Intracompany payment terms should be set to maximize the use of the available cash throughout the entire company within the bounds of applicable tax laws and fiscal policies, as well as sound business practice. By making cash available to cash-using entities from the cash generating areas of a company, borrowing can be kept to a minimum and balances available for investment maximized.

One effective technique is to net foreign currency payments among subsidiaries or branches. This eliminates the costly necessity of currency conversion and reduces float time between operations.

Cash Forecasting The company's cash forecasting should produce reliable information on which to make short-term investment or debt decisions. Enhancements or improvement to the cash forecast accuracy must be cost justifiable. An amount of excess cash or short-term debt capacity should be kept on hand to cover forecasting errors.

The above are some of the issues that need to be addressed in order to determine just how effective a firm's cash management policies really are.

Receivables represent the extension of credit on open account terms by a firm to its customers. Credit is normally extended as a courtesy to qualified customers in order to facilitate the flow of goods. Since accounts receivable usually represent a large

[3] Richard A.Brealey, Stewart C. Myers, Principles of Corporate Finance, McGraw-Hill, Series in Finance, 2002.

portion of the current assets of most firms, it is essential that they be managed properly and efficiently.

Management of accounts receivable consists of three discrete functions: granting credit, monitoring receivable balances, and collecting balances when due. The first of these controls the creation of the asset; the second maintains it during its lifetime; and the third ends the asset's life.

In many companies, these three functions are blended in one department, frequently being performed by one individual. However, to ensure effective management of the asset. each function should periodically be examined separately.

The credit function has the critical role of defining the criteria for creating a receivable. Although authority to create accounts is frequently shared with other functions, the credit function coordinates the activity,' and is responsible for seeing that receivables are created within the guidelines of company policy.

The criteria for creation of a receivable include terms of sale, customer creditworthiness, and revenue recognition for account purposes.

Terms of sale will specify how long any receivable is on the books, and therefore how large the total receivables asset should be. Credit limits should be established to contain the size of receivables available to customers. The cost of carrying a receivable is therefore a critical element in setting the terms of sale. The firm should be aware of how this carrying cost impacts the firm's return on assets (ROA), as well as its after-tax profits. This cost should also be an element in the pricing decision; thus, it can influence sales volume. Pressures from the sales or marketing functions to liberalize the terms of sale should therefore be traded off against price levels. Ensuring that such a balancing process takes place is an important element of asset management.

A similar trade-off takes place in the setting of credit standards. In addition to the increased cost of carrying receivables that may take longer to collect, there may be increased bad debt expense. These costs need to be related to projected incremental revenues. Interestingly, this formula also works in reverse, and the absence of measurable bad debts could be an indicator that credit standards are unreasonably restricting sales.

Accounts receivable, if properly managed, can also avoid excessive carrying cost for customer credit if a customer has a history of extended payment or if the receivable is expected to be extended for more than a "normal" period. This separation of receivables allows the responsible individuals to concentrate (and be measured) on active accounts and to earn interest income on the delay in collections.

The policy for revenue recognition determines the earliest point at which a receivable can be created and is an important element of receivables management. While the credit function is usually not authorized to independently determine a company's revenue recognition policy, it should ensure that the process to do so has

included the trade-offs relating to good accounts receivable management. In this case, these relate primarily to collectability of an account.

The computer industry provides a good example of the importance of this issue. The general practice of the industry is to recognize revenue at the point of shipment, but the general practice of customers is to pay after the equipment has been successfully installed and tested. The credit function needs to ensure that this issue is addressed, particularly if the equipment is complex or if the installation applies to billing practices under a computer contract. Advance bffiings should be weighed against the possibility that customers will only pay after the service period has elapsed.

The administration function of accounts receivable management is charged with maintaining accurate files and providing timely information. The accuracy and timeliness of the data are critical to the credit and collection functions, which depend on it to manage each customer's account effectively. Automated systems are available and widely used to increase efficiency. As a result, the most frequent problem area relates to adjustments to the files due to discounts, returns, and write-offs. These areas should be monitored carefully.

The most efficient collection function usually also serves as an effective customer assistance organization. While in some cases the collection of a doubtful account will require a tough attitude on the part of the collector, most collection problems are the result of a dispute over merchandise or service. Collection departments need to be equipped to track down and resolve a variety of these issues in order to be effective.

It is important to view accounts receivable management within the overall framework of managing a corporation. For example, the collection cycle is impacted by virtually every organization within the firm. It reflects the firm's ability to design, produce, and ship a quality product; to install it quickly (if necessary); to generate paperwork that is acceptable to the customers; and to provide for the prompt collection of payments.

Accounts receivable goals, such as days sales outstanding, should be incorporated into operating management's performance measures. This is the only way to ensure that an area as critical to a firm's success as accounts receivable management receives the necessary support and attention of a firm's key mangers, its operating management.

Managing the distinction between recognition of revenue for tax purposes and revenue for book purposes is a crucial function. Net current assets management in these areas could mean millions of kunas of "free" cash if exploited properly. For instance, instalment notes may be considered revenue when booked, but for tax purposes the income would not have to be taxable profit until such notes are paid, which would usually be in annual or periodic instalments. Further, transfer of title could be changed (in the case of capital goods) from the date of shipment until the later of customer acceptance or final payment. In both cases, revenue recognition need not be changed, but tax benefits would accrue through improved net current assets management.

The other major investment which a firm makes is its investment in **inventory**. There is probably no other area in which there is more potential for gain or loss than the area of inventory management.

In general, there are three types of "classes" of inventory:

- Raw material inventory - This consists of material purchased and inventoried in its purchased form in anticipation of consumption in the manufacturing process. In general, this also includes "safety stock", which is extra inventory purchased as a hedge against late delivery, rejections of rawmaterial, and other fluctuations in production schedules.

- Work-in-process inventory - This is material in the production cycle to which value has been added in the form of labour.

- Finished goods inventory - This consists of final/completed products from production that are ready for sale to customers.

Each of these classes of inventory is generally controlled by a different group within a company. For example, raw material inventory is significantly impacted by the policies of the corporation's purchasing group. The level of work-in-process inventory will largely depend on a company's production processes. However, the level of finished goods inventory will be a function of a firm's production schedules, the quality of its sales forecasts, and its management's decision regarding the level of finished goods inventory needed to support its sales forecasts.

Coordination of the three types of inventory is essential to effective cash management. "Safety stock" alone can tie up funds at all three levels of inventory.

In Japan, the "Kan Ban" system has helped reduce inventory levels. The partnership between manufacturer and supplier is so strong that levels of inventory are reduced because of supplier integrity to ship "just-in-time," allowing the manufacturer to schedule with confidence in both reliability and quality.

Raw Material Inventory Manufacturing firms usually feel it necessary to carry significant inventory to hedge against supplier failure to deliver acceptable parts on time. However, this should be weighted against the lost savings. Such a hedge can consists of 4 to 12 weeks of unnecessary inventory, with the resulting commitment of that amount of net current assets on a virtually permanent basis.

Firms may find that they cannot afford such an expensive idling of resources. A way to reduce this excessive level of inventories is to work actively with one's suppliers in this area. A concept that invariably helps to conserve net current assets through reduced inventories is the notion of a "partnership" with a firm's suppliers.

Partnership does not mean that a firm buys a financial stake in its suppliers[4]. Rather, it means that the firm fosters an attitude of mutual planning and cooperation.

Some of the problems which a partnership approach can solve are:

- Expensive and unnecessary hedging of raw material inventories against supplier failure to ship on time.
- Inability of suppliers to respond quickly to increases in purchaser demand.
- Steadily accelerating purchase prices.
- Delivery of parts that do not meet specifications and are of unacceptable quality.

The above list is by no means exhaustive, but it illustrates how levels of raw material inventory can be reduced. In addition, it suggests how a firm's production processes can be favourably impacted by the partnership concept.

When embarking on a partnership, manufacturers and suppliers should mutually agree upon certain goals that are capable of being measured. Examples of such goals are:

- Meeting of delivery commitments within acceptable tolerances.
- Realization of a quality level that is 100 percent to specifications. For the manufacturer, this would mean zero inspection and the ability to take parts directly from the receiving docks to the production areas.
- Commitment by the firm to lead times of 15 days for orders of regularly purchased materials after which no rescheduling or cancellation is allowed.

These types of goals can significantly lower inventory levels, and consequently, the firm's overall level of net current assets.

Work-In-Process and Finished Goods Inventory These types of inventories also need to be scrutinized. However, the focus here shifts away from a firm's purchasing function to its manufacturing processes and controls. Significant reductions can also be realized in these inventories through effective control programs with scheduling to match customer demand.

Although generally not significant in terms of amount, **other assets**, such as prepaid expenses and deferred income tax charges, do nevertheless form part of a firm's investment in net current assets. Consequently, these need to be managed in their own right as separate components of net current assets .

Turning now to the liabilities side of the balance sheet, one can focus on one of the methods of financing a firm's investment in current assets, namely, a firm's

[4] Hampton J. J., Financial Decision Making – Concepts, Problems and cases, Fourth Edition, Prentice Hall, 1989. p. 180.

current liabilities. In general, there are three main categories of **current liabilities**: short-term debt, payables, and other current liabilities[5].

There are many forms of **short-term debt** available to a company. The most common are bank borrowings and issuance of commercial paper. By definition, short-term debt has a maturity of less than one year.

Historically, although not in recent years, short-term debt has been less costly than long-term debt. It does, however, carry more risk for the company and the stockholder. Reliance on short-term financing makes company earnings more sensitive to interest rate fluctuations and focuses attention on the ability to repay or to roll over the principal balances in the near term. Companies that use only long-term debt or equity to finance their requirements need not be concerned with short-term fluctuations in earnings or interest rates but rather with their longer term performance.

Generally, the term of debt chosen to finance a company's requirements should be consistent with the length of the requirement and corporate financing philosophies. Long-term growth or the purchase of fixed assets should be financed with longer dated debt or equity, while cyclical or short-term liquidity requirements are better matched with short-term instruments.

The firm's **payables** to its suppliers should not be viewed as a means of providing financing although technically it does provide funds during the period between receipt and payment. This source of short-term financing needs to be monitored carefully as it can be extremely expensive through the loss of early payment discounts. Further, the issues of equity and fairness also need to be made visible. A deliberate policy of delaying payments to suppliers not only is unfair but can be counterproductive in the long run by resulting in higher prices from vendors. A bad relationship with one's supplier is not a good base on which to build a partnership of the type described earlier in the section on inventories.

Critical to the proper management of accounts payable are management reports that depict days to pay, lost discounts, aged debit balances, and aged unpaid invoices. These basic tools allow management to focus quickly on problem areas and to take appropriate action to maintain the company's standing in the eyes of its vendors. It is also good practice to establish measurable goals by which financial managers who are responsible for accounts payable can be judged.

Other **current liabilities**, such as accrued expenses, should not be overlooked. Although the amounts are relatively small, they also form part of a company's net current assets.

[5] See, Zoran Ivanovic, Financijski menedžment, University of Rijeka, 1997.

2. MACRO NET CURRENT ASSETS MANAGEMENT STRATEGIES

Now that some of the procedures necessary for the effective management of net current assets as individual asset categories have been described, it is important to consider how the management of these assets and liabilities can be integrated into broad corporate decision-making processes. This is the concept of macro net current assets management: a process which attempts to ensure complete consideration within the business decision-making process of future impacts on net current assets. Such planning is undertaken by a senior staff finance manager who does not necessarily represent or supervise the professional staffs responsible for micro net current assets management activities[6].

The final goal, in fact, of a program of macro net current assets management is to thoroughly acquaint line management with the impacts and interrelationships of net current assets management alternatives so that macro net current assets management becomes an integral part of routine line decision-making processes.

One area where an understanding of net current assets management can be a vital, competitive tool is in the structuring of manufacturing processes. Manufacturing and production management are frequently offered opportunities to reduce product cost or to increase quality, responsiveness, or capacity through adoption of new technologies, processes, or practices. Yet only by integrating a full marginal analysis of the net current assets impact of any proposed decision (primarily on inventories) can the validity and desirability of the proposal be gauged. It does little good to consider in retrospect why inventories have jumped substantially, perhaps requiring infusions of additional capital *after* a major manufacturing process decision has been made.

Much attention is usually given to the consideration of additional *capital* spending in manufacturing environments. An equal amount of consideration should be given to the marginal increase in net current assets requirements that may result from the acceptance of each proposal.

A major variable in the marketing equation is the selection of distribution channels for a given product family. Much consideration is given to the subject of discount structures, price elasticity, cross-channel competition, and likely volumes.

Equal consideration should be given to the net current assets implications of a given channel proposal. A simple change in terms and conditions may result in legal passage of title at a point much later in the sales cycle, resulting in significantly increased "pipeline" inventories all of which must be financed. While the impact of an extension in payment terms is widely understood to be negative, a full analysis of the actual impacts on receivables balances and the subsequent increases in net current assets needs is frequently lacking. Such a relatively elementary calculation should be mandatory and should be considered an integral part of the business review of any marketing proposal.

[6] See, Zoran Ivanovic, Financijski menedžment, University of Rijeka, 1997.

Net current assets management might be the furthest thing from the mind of an engineer involved in new product design. Efficient use of financial assets is seldom critical to the functionality and saleability of a product; nevertheless, it can significantly affect the ultimate yield which that investment will earn for its company. This is a special problem for manufactured products that require some degree of installation, debugging, and acceptance and subsequently, field maintenance. Such products are relatively diverse: nuclear power plants, threshing machines, computers, drop forges, and fire protection systems. For each of these products, installability and maintainability expectations are built into the design decision-making process. These decisions are frequently a trade-off of functionality, manufacturing ease and cost, product cost, and field engineering capability.

An additional factor that should be considered is the time interval during which accounts receivable must be carried while installation problems are resolved, systems debugged, and customer satisfaction achieved. The terms of the invoice may read "net 30 days," but the customer will pay 30 days from acceptance, not from invoice date. While this may seem trivial to the design engineer, the question which the financial manager must ask is, "What is the marginal effort required by the design engineer to reduce days sales outstanding versus the marginal effort required by his credit and collections organization?" The answer may be that such a feat is impossible for the credit and collections organization and a minor additional cost (in terms of time and inconvenience) for the product designer.

Physical distribution offers another opportunity to integrate macro net current assets management with line decision-making processes. Strategies to reduce physical distribution costs may increase inventory balances or receivable balances.[7] Once again, the opportunity is not to minimize net current assets balances but to optimize the cost and responsiveness of physical distribution, along with the costs of acquiring and managing the necessary net current assets balances.

In each of these cases, we have seen the need for an effective business plan review process to ensure that the impact of line business decisions on net current assets balances is understood and integrated into plans and proposals. To achieve greater productivity, many firms often face the high costs of factory automation. This can require sizable fixed investment, and yet can be necessary for competitiveness in world markets. Usually, the least expensive way for manufacturers to finance this requirement is through improved macro net current assets management. This concept of macro net current assets management requires a presence and coordination well outside the corporate finance department. It requires an active role during the formative stages of business planning throughout the company.

[7] For example, centralized warehousing may require lengthy transportation times to distant customers.

CONCLUSION

As a conclusion we can say that net current assets management is an area of critical importance to a firm from both a micro and a macro viewpoint. In this article we have seen how the effective management of the individual components of net current assets can reduce the firm's overall investment in assets and consequently its financing costs and we also highlighted how concepts of net current assets management can enhance decision making in other key areas of the firm, such as product design.

The key to maximizing benefit from net current assets management strategies lies in integrating net current assets management with the operating decision processes of the company as a whole.

REFERENCES

1. Brealey R. A., Stewart C. Myers, Principles of Corporate Finance, McGraw-Hill, Series in Finance, 2002.
2. Francis J. C., Investments – Analysis and Management, Fifth Edition, McGraw-Hill International Editions, Finance Series, 1991.
3. Hampton J. J., Financial Decision Making – Concepts, Problems and cases, Fourth Edition, Prentice Hall, 1989.
4. Ivanovic Z., Financijski menedžment, University of Rijeka, 1997.

Sažetak

OBRTNI KAPITAL U *FEASIBILITY* STUDIJAMA

Jedno od najvažnijih područja svakodnevnog menadžmenta firme sastoji se od upravljanja obrtnim kapitalom. Obrtni kapital definiramo kao razliku između kratkoročne imovine i kratkoročnih obveza. Sastoji se većinom od gotovine, utrživih vrijednosnih papira, potraživanja i zaliha. Za uspješno upravljanje obrtnim kapitalom potrebne su kvalitetne strategije, srednjeročno planiranje i promptne reakcije na predviđanja i promjenjive uvjete poslovanja. U radu je upravo iz navedenih razloga dat naglasak na važnost obrtnog kapitala u procjenama opravdanosti izvedbe nekog projekta.

Ključne riječi: obrtni kapital, feasibility studije, gotovina, potraživanja, zalihe, kratkoročne obveze, obveze.