



**Tampere Polytechnic
Business School**

**Cash inflow forecasting management
in a service company operating
internationally**

Ewelina Kania

**Degree Programme in International Business
December 2005**

Supervisor: Pasi A. Kuusijärvi

Tampere 2005



**Tampere Polytechnic
Business School**

Author	Ewelina Kania	
Supervisor	Pasi A. Kuusijärvi	
Title	Cash inflow forecasting management in a service company operating internationally	
Month and Year	December 2005	Number of pages: 61

ABSTRACT

In the today's economy company's cash situation often reflects the financial health of the whole organization. It is becoming increasingly important to create and stick to cash budgets as well as predict cash receipts and outgoings.

The below thesis looks into the problem of accurate cash forecasting. In order to explain how the notion of accrual income differs from the notion of net cash flow, the theory of finance has been analyzed and applied in a real-life case of a service company group operating internationally.

The investigation of the business's operations and the analysis of the environment indicated the company group needs cash forecasting due to the characteristics of its cash flow (seasonality and tightness). However it is extremely difficult to forecast cash inflows accurately and a firm system of credit control has to be established and followed in order to meet the liquidity forecast goals.

The improvement of the cash forecasting system resulted in 80% accuracy of the inflowing cash projections. However, due to the seasonality of the business analyzed, the specific cash inflow patterns still need more investigation. Further studies should include the Autumn and Winter periods when the business has to strive for cash.

Keywords Cash, Cash Flow, Cash Forecasting, Cash Flow Management

List of contents

1	Basics of Cash Flow Management.....	4
1.1	Background and Introduction.....	4
1.2	Definition and Meaning of Cash and Cash flows	5
1.2.1	Definition of cash.....	5
1.2.2	Cash Inflows and Cash Outflow	6
1.3	The implications of accrual and cash bases for financial reporting	8
1.3.1	Accrual income vs. cash receipt.....	8
1.3.2	Cash Flow Statement vs. Profit and Loss Statement and Balance Sheet	10
1.3.3	The relation between the elements of a company financial statement.....	15
1.4	The Definition, Elements, and Principles of Cash Flow Forecasting	17
1.4.1	Definition of Cash Forecast	17
1.4.2	Elements of a cash flow forecast.....	19
2	The Theory of Cash Flow Management.....	21
2.1	Motives, Objectives, and Time Frames of Cash Forecasts	21
2.1.1	Reasons for cash forecasting.....	21
2.1.2	Objectives of cash forecasting	22
2.1.3	Time frames of cash forecasts.....	23
2.2	Types of cash flow forecasts and their approach	24
2.2.1	Types of cash forecasts	24
2.2.2	Transaction-Based Approach vs. The Direct Method.....	24
2.2.3	The Funds Flow Approach vs. The Indirect Method	25
2.3	Ways of Improving Cash Flow	27
2.3.1	Operational techniques of improving cash flow	27
2.3.2	Establishing the cash flow targets and creating the right behaviour	29
2.3.3	Managing Cash Shortfalls.....	30
2.3.4	Computer technologies in cash forecasting.....	32
3	Inbound Cash Forecasting – practical example	34
3.1	Cash and Cash Flows in the Company Group	34
3.1.1	Cash and cash equivalents identification	34
3.1.2	Bank reconciliations and reporting on the balances of cash	35
3.1.3	Characteristics of the company cash flows	36
3.2	The specifics of the company group credit control.....	37
3.3	The practice of inbound cash forecasting in the Company Group.....	40
3.3.1	The type of cash forecast.....	40
3.3.2	The method of inbound cash forecasting in the Company Group	42
3.3.3	Gathering the specific knowledge - 10 weeks' forecast examination.....	45
3.4	Inbound cash forecasting – conclusions.....	47
4	Summary	54
	Literature	57
	Attached.....	60

1 Basics of Cash Flow Management

1.1 Background and Introduction

Effective managers don't just react to events; they anticipate and plan for the unexpected. Successful organisations open their minds to various scenarios and appreciate the dynamic factors that affect each outcome. In the current economy, cash is the king, and cash forecasting is more important than it has ever been. Cash is not as readily available as it was before, so companies are looking into ways to gain better visibility into cash flow and to monitor it for better planning.

Cash is the oxygen that enables a business to survive and prosper, and is the primary indicator of business health. While a business can survive for a short time without sales or profits, without cash it will die. For this reason the inflow and outflow of cash need careful monitoring and management.

This thesis looks at the key elements of inbound cash flow and at how inbound and outbound cash flow management can help protect the financial security of a business. The objective of this research is to enable financial managers of a group of seven companies to achieve greater profitability with more effective cash flow planning and forecasting.

In order to achieve the practical objective, solutions offered by the theory of finance have been examined and considered. The thesis starts with theoretical definition of cash and its equivalents as well as the theoretical analysis of cash flows types. The fundamental rules of contemporary accountancy have been examined in order to explain the implications of difference between profit and cash.

Further the theoretical methods, types and approaches to cash forecasting have been summarised. Not only ways of cash forecasting have been explained but also the reasoning behind cash forecasting has been highlighted. This part of the thesis was to lay the theoretical ground to the second, practical part of the thesis.

The practical part of this thesis examines a real-life example of setting up a system of cash flow forecasting in a group of seven companies operating internationally in education and tourism industry. Based on the analysis of the theory of finance, the company cash, cash equivalents and cash flows have been identified and an appropriate method of cash forecasting has been chosen.

Having identified the suitable forecasting method and credit control system based on the theory of finance and the company specifics, the actual outcomes of the newly set up system have been verified in a ten-week research, as a result of which a knowledge base needed for accurate forecasting has been created. The results achieved have been

satisfactory, although additional problems needing further development and solution have been identified and presented to the company group's financial management.

1.2 Definition and Meaning of Cash and Cash flows

1.2.1 Definition of cash

Cash is the oxygen that enables a business to survive and prosper, and is the primary indicator of business health. While a business can survive for a short time without sales or profits, without cash it will die. For this reason the inflow and outflow of cash need careful monitoring and management. This thesis looks at the key elements of inbound cash flow and at how inbound and outbound cash flow management can help protect the financial security of a business.

Cash is the measure of an ability to pay bills on a regular basis. This, in turn, depends on the timing and amounts of cash flowing into and out of the business each week and month - the cash flow.

Cash includes:

- coins and notes,
- current accounts and short-term deposits,
- bank overdrafts and short-term loans,
- foreign currency and deposits that can be quickly converted to national currency.

Cash does not include:

- long-term deposits,
- long-term borrowing,
- money owed by customers,
- stock.

It is important not to confuse cash with profit. Profit is the difference between the total amount a business earns and all of its costs, usually assessed over a year or other trading period. A business may be able to forecast a good profit for the year, yet still face times when it is strapped for cash.

To make a profit, most businesses have to produce and deliver goods or services to their customers before being paid. Unfortunately, no matter how profitable the contract, if a business does not have enough money to pay the staff and suppliers before receiving payment, it will be unable to deliver its side of the bargain or receive any profit.

To trade effectively and be able to grow, a business needs to build up cash reserves by ensuring that the timing of cash movements puts the business in an overall positive cash flow situation.

1.2.2 Cash Inflows and Cash Outflow

Understanding the reasons why businesses need cash requires a good understanding of the cash flow concept. Cash flows in their broad definition stand for the difference between cash inflows from sales (goods and services) and cash outflows (capital spending and spending regarding current operating of a business) occurring in consecutive reporting periods.¹ The below table explains this concept in detail:

Table 1 **The broader definition of cash flow**

$CF = p \times X - (FC + AFC + p \times X \times W_{vc}) \times (1 - r) + KN + \Delta P - \Delta A$	
Where:	
CF	- Cash Flows in reporting period,
P	- Unit price of sales after discounts,
X	- Volume of sales (natural units),
FC	- Total Fixed Costs,
AFC	- Additional fixed costs,
W_{vc}	- Unit variable cost/unit price,
R	- Income tax rate,
KN	- Costs that did not cause cash outflows,
ΔP	- Change in balance of short term liabilities
ΔA	- Change in balance of short term assets

The definition of Cash Flows may have many meanings. Cash flows can be defined as:

- Net income plus depreciation and amortization,
- Net income plus retained earnings,
- Net income plus retained earnings, plus retained earnings, and plus other costs which did not cause cash outflows,
- Net income plus costs which did not cause cash outflows and minus sales which have not generated cash inflows.²

According to their narrow definition, cash flows stand for the total of net income and amortization and depreciation. A more developed formula presents them as the sum of net income and costs that have not caused cash outflows (amortization, depreciation and provisions) less income, which was not followed by cash inflows. According to the broadest definition, cash flows stand for the difference between cash inflows and outflows (inbound and outbound cash, cash payments and cash receipts).³

The analysis of the above definitions shows that cash flows are mainly defined by certain corrections of net income.

Basically, according to the theory of finance there are two main sources of cash in a business. The outside source of cash, causing uneven changes in its balance stands for issuing securities such as equities and bonds as well as taking bank loans. These cash

inflows do not belong to day-to-day business activities and usually do not occur on a regular basis. Decisions regarding them have usually long term character and are taken by the managing directors of businesses. The deals of outside financing usually account for large amounts and are the outcome of identification fundamental needs of a business.

Cash inflows from internal sources are more regular. In the long term, the most important source of cash are customer receipts from sales and receipts from sales for cash to a smaller degree. In many production businesses the source of regular cash inflows can be sales of liquidated fixed assets or excess inventories. These inflows, however, do not belong to the regular business activities and should not account for substantial sources of financing, except for outstanding situations, such as a complete renovation or modernization of the company production facilities.

Except for investing excess cash in near-cash assets, cash balance can decrease for many reasons, which can be divided in three general groups. The first one concerns irregular cash outflows for dividend payments for the company owners, loans repayment, and payment for income tax. The second group concerns cash spending related to realization of capital plans in a business (company schedule for purchases of fixed assets). The third group of outflows includes regular payments for materials ensuring smooth running of production cycle⁴.

Ideally, during the business cycle, a business will have more money flowing in than flowing out. This will allow it to build up cash reserves which will plug cash flow gaps, allow the business to seek expansion and reassure lenders and investors about the health of the business. However, income and expenditure cash flows rarely occur together, with inflows often lagging behind. The management's aim must be to do all that it can to speed up the inflows and slow down the outflows

To summarise, cash flows characteristic for and business are as follows:

Cash inflows:

- payment for goods or services from customers,
- receipts of a bank loans,
- interest on savings and investments,
- shareholder investments.

Cash outflows:

- purchase of stock, raw materials or tools,
- wages, rents and daily operating expenses,
- purchase of fixed assets - PCs, machinery, office furniture, etc
- loan repayments,
- dividend payments,
- income tax, corporation tax, VAT and other taxes.

Many of regular cash outflows, such as salaries, loan repayments and tax, have to be made on fixed dates. A business must always be in a position to meet these payments, to avoid large fines or a disgruntled workforce.

1.3 The implications of accrual and cash bases for financial reporting

1.3.1 Accrual income vs. cash receipt

The accrual basis is one of the most fundamental rules of modern accountancy all over the world. According to this rule, a transaction enters the reporting period when it happens and not when a relevant cash flow related to this transaction occurs. At that time the transaction should enter the company accounts and it should be reflected by the company financial reports related for the period when the transaction actually happened.

The accrual basis is opposed to the cash basis according to which a transaction enters the period when the cash inflows and outflows related to it actually occur. Sales and costs and, therefore, profits do not necessarily coincide with their associated cash inflows and outflows. While a sale may have been secured and goods delivered, the related payment may be deferred as a result of giving credit to the customer. At the same time, payments must be made to suppliers, staff etc., cash must be invested in rebuilding depleted stocks, new equipment may have to be purchased etc.

The net result is that, cash receipts often lag cash payments and, whilst profits may be reported, the business may experience a short-term cash shortfall. For this reason it is essential to forecast cash flows as well as project likely profits. Therefore, the information value of income appears often to be ‘paper’ and even ‘unreal’ in its actual contents. The below example no 1 illustrates the implications of the accrual basis for the company accounts.

Example 1 The accrual basis: creating time gap between sales and cash receipt.

A company Gamma produces goods A, B and C. It has agreed terms and conditions of payment:

- a) with suppliers - 30 days.
- b) with customers – 60 days.

At the beginning of the month ‘Y’ there were the following beginning balances in the company balance sheet:

- 1. Cash 200
- 2. Inventories:
 - a) Product A – 80
 - b) Product B – 30
 - c) Product C – 200
 - d) Materials – 200
- 3. Accounts receivable – 0
- 4. Accounts payable – 0

In month 'Y' (year 200X) the following transactions have occurred:

1. 10.0Y.0X – Invoice for materials purchased on credit from supplier 'M' – 100
2. 11.0Y.0x – Physical receipt of the materials purchased on 10.0Y.0X
3. 20.0Y.0X – Invoice for energy from supplier 'E' – 10
4. 25.0Y.0X – Payroll for month 'Y' (salaries accounted for) – 20
5. 26.0Y.0X – Invoice, Product 'A' sold, cash to be paid later – 100
6. 27.0Y.0X – Physical dispatch of product 'A' – cost of sales - 60
7. 30.0Y.0X – Payroll for month 'Y', Salaries paid out – 20

Company Ledger:

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Cash</th></tr> <tr><td style="width: 50%;">Bb. 200</td><td style="width: 50%; text-align: right;">20</td></tr> </table>	Cash		Bb. 200	20	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Materials</th></tr> <tr><td style="width: 50%;">7. Bb. 200</td><td style="width: 50%;"></td></tr> <tr><td style="width: 50%;">2. 100</td><td style="width: 50%;"></td></tr> </table>	Materials		7. Bb. 200		2. 100		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Products</th></tr> <tr><td style="width: 50%;">Bb. 280</td><td style="width: 50%; text-align: right;">60</td></tr> </table>	Products		Bb. 280	60	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Product A</th></tr> <tr><td style="width: 50%;">6. Bb. 80</td><td style="width: 50%; text-align: right;">60</td></tr> </table>	Product A		6. Bb. 80	60								
Cash																													
Bb. 200	20																												
Materials																													
7. Bb. 200																													
2. 100																													
Products																													
Bb. 280	60																												
Product A																													
6. Bb. 80	60																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Product B</th></tr> <tr><td style="width: 50%;">Bb. 30</td><td style="width: 50%;"></td></tr> </table>	Product B		Bb. 30		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Product C</th></tr> <tr><td style="width: 50%;">Bb. 200</td><td style="width: 50%;"></td></tr> </table>	Product C		Bb. 200		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Accounts Receivable</th></tr> <tr><td style="width: 50%;">Bb. 0</td><td style="width: 50%;"></td></tr> <tr><td style="width: 50%;">5. 100</td><td style="width: 50%;"></td></tr> </table>	Accounts Receivable		Bb. 0		5. 100		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Accounts Payable</th></tr> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;">0</td></tr> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;">100</td></tr> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;">10</td></tr> </table>	Accounts Payable			0		100		10				
Product B																													
Bb. 30																													
Product C																													
Bb. 200																													
Accounts Receivable																													
Bb. 0																													
5. 100																													
Accounts Payable																													
	0																												
	100																												
	10																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Reconciliation of materials purchase</th></tr> <tr><td style="width: 50%;">1. 100</td><td style="width: 50%; text-align: right;">100</td></tr> </table>	Reconciliation of materials purchase		1. 100	100	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Cost: Energy Consumption</th></tr> <tr><td style="width: 50%;">2. 3. 10</td><td style="width: 50%; text-align: right;">10</td></tr> </table>	Cost: Energy Consumption		2. 3. 10	10	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Payable Salaries and Wages</th></tr> <tr><td style="width: 50%;">7. 20</td><td style="width: 50%; text-align: right;">20</td></tr> </table>	Payable Salaries and Wages		7. 20	20	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Cost: Salaries and Wages</th></tr> <tr><td style="width: 50%;">4. 4. 20</td><td style="width: 50%; text-align: right;">20</td></tr> </table>	Cost: Salaries and Wages		4. 4. 20	20										
Reconciliation of materials purchase																													
1. 100	100																												
Cost: Energy Consumption																													
2. 3. 10	10																												
Payable Salaries and Wages																													
7. 20	20																												
Cost: Salaries and Wages																													
4. 4. 20	20																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Sales</th></tr> <tr><td style="width: 50%;">A 100</td><td style="width: 50%; text-align: right;">100</td></tr> </table>	Sales		A 100	100	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Costs of sales</th></tr> <tr><td style="width: 50%;">5. 6. 60</td><td style="width: 50%; text-align: right;">60</td></tr> </table>	Costs of sales		5. 6. 60	60	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">P&L</th></tr> <tr><td style="width: 50%;">B 60</td><td style="width: 50%; text-align: right;">100</td></tr> <tr><td style="width: 50%;">C 20</td><td style="width: 50%;"></td></tr> <tr><td style="width: 50%;">D 10</td><td style="width: 50%;"></td></tr> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;">90</td></tr> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;">100</td></tr> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;">10</td></tr> </table>	P&L		B 60	100	C 20		D 10			90		100		10	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">A</th></tr> <tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr> </table>	A			
Sales																													
A 100	100																												
Costs of sales																													
5. 6. 60	60																												
P&L																													
B 60	100																												
C 20																													
D 10																													
	90																												
	100																												
	10																												
A																													

The analysis of the above example proves that in case suppliers' payment conditions are more strict than customers' payment conditions a business has to increase its working capital in order to be able to conduct its activities. This may mean in practice a need for taking a long-term bank loan or share issue. However, additional capital is not freely available and has to be paid for.

In case the working capital increases, the overall profitability may be decreased: additional capital is costly and the company managers have to make sure that the efficiency of its use is higher than its cost (interest paid to bank or dividend paid to the capital owner). Eventually, it is the safest for the business if suppliers' conditions and terms of payment are better than these given to the company customers.

1.3.2 Cash Flow Statement vs. Profit and Loss Statement and Balance Sheet .

“Cash is Cash and everything else is Accounting”

Factors determining goals of business activities: income, cash and risk, remain unchanged. Financial information users require facts and not illusions. Neither the company Profit and Loss Statement nor its Balance Sheet presents the full and dynamic picture of a company financial standing and evolution, i.e. the changes in its overall structure and changes in its cash balance. Understanding the meaning of this evolution is a source of valuable information for both internal and external users. To fulfil these information needs, the statement of cash flows has been created and recognized by the main bodies of the world financial reporting standards authorities.

The accrual basis is required by the International Financial Reporting Standards as well as most of national reporting standards and generally accepted accounting principles. In the American accountancy the accrual basis is known as the matching concept and it states that transactions should be matched with relevant periods that they occur in, and not with the reporting periods when the cash flows caused occur.

Originally, businesses were required to file a statement of changes in financial position, or funds statement. The funds statement went through several years of development before it was widely used. In 1961, Accounting Research Study No. 2, sponsored by the American Institute of Certified Public Accountants (AICPA), recommended that a funds statement be included with the income statement and balance sheet in annual reports to shareholders.

Two years later, Accounting Principles Board (APB) Opinion No. 3 was issued and provided funds statement preparation guidelines. Although Opinion No. 3 did not go so far as to make the funds statement mandatory, most businesses, aware of the statement's value, included it in their annual reports anyway. Finally in 1971, APB Opinion No. 19 officially made the funds statement one of the three primary financial documents required in annual reports to shareholders. The APB also said a funds statement must be covered by the auditor's report. Because Opinion No. 19 didn't specify a particular format for the funds statement, businesses still enjoyed considerable flexibility in how they chose to report their funds flow information.

That flexibility came to an end in late 1987, with the Financial Accounting Standards Board's (FASB) issuance of Statement No. 95, which called for a statement of cash flows to replace the more general funds statement. Additionally, the FASB, in an effort to help investors and creditors better predict future cash flow, specified a universal statement format that highlighted cash flow from operating, investing, and financing activities. This format is still used today.

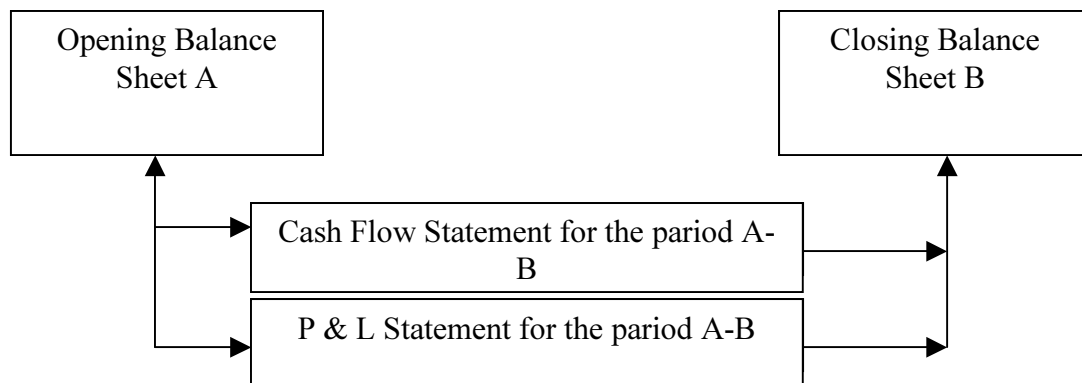
The full picture of a company's financial position can only be fully understood if statement of cash flows is presented and analysed. Although it is the latest statement and it is not mandatory in some countries, the meaning of statement of cash flows is fully appreciated and recognised in business and academic environment. Company financial picture, which

can be derived from its Balance Sheet and Profit and Loss Statement, may turn out to be incomplete due to the facts that:

- The Balance Sheet only presents a static picture of a company financial position at a given point in time,
- The Profit and Loss Statement, which is based on the accrual basis, disregards the meaning of cash in company's operations.

Cash is the 'blood' of any organization undertaking business activity. Neither balance sheet nor profit and loss statement indicates the dynamics characteristic for the cash payments and receipts. A simple comparison of two balance sheets enables establishing the change in the cash balance, but it does not explain HOW this change happened.

The cash flow statement explains what were the sources of cash and how the cash received was used. Unlike the Balance Sheet, Statement of Cash Flows reflects the business activity within the reporting period. Together with the Profit and Loss Statement it explains how and why specific Balance Sheet items have changed. The below picture shows how opening and closing Balance Sheets are connected by the Statement of Cash Flows and the Profit and Loss Statement.⁵



Graph. 1 Relation between the elements of a financial report

The statement of cash flows explains where cash has come from and how it has been used in the reporting period. The statement of cash flow reports the movement of cash into and out of a business in a given year. Thus, it is an important source of information for both the internal and external users of this statement.

Cash Flow Statements are broken down into three sections: operating activities, investing activities and financing activities. This differentiation of the three fundamental types of activities is helpful for systemizing different cash flows occurring in any organization. Broad acceptance of this systematization makes comparable cash flows produced by different businesses active in incomparable otherwise industries.

Operating activities (all transactions and events that normally enter into the determination of operating income) include cash receipts from selling goods or providing services, as

well as income from items such as interest and dividends. Operating activities also include cash payments such as inventory, payroll, taxes, interest, utilities, and rent. The net amount of cash provided (or used) by operating activities is the key figure on a statement of cash flows. While cash inflows from interest or dividends could be considered investing or financing activities (as per International Accounting Standards), the American standards classify them as operating activities.

Investing activities include transactions and events involving the purchase and sale of securities (excluding cash equivalents), land, buildings, equipment, and other assets not generally held for resale. It also covers the making and collecting of loans. Investing activities are not classified as operating activities because they have an indirect relationship to the central, ongoing operation of business (usually the sale of goods or services).

All financing activities deal with the flow of cash to or from the business owners (equity financing) and creditors (debt financing). For example, cash proceeds from issuing capital stock or bonds would be classified under financing activities. Likewise, payments to repurchase stock (treasury stock) or to retire bonds and the payment of dividends are financing activities as well.

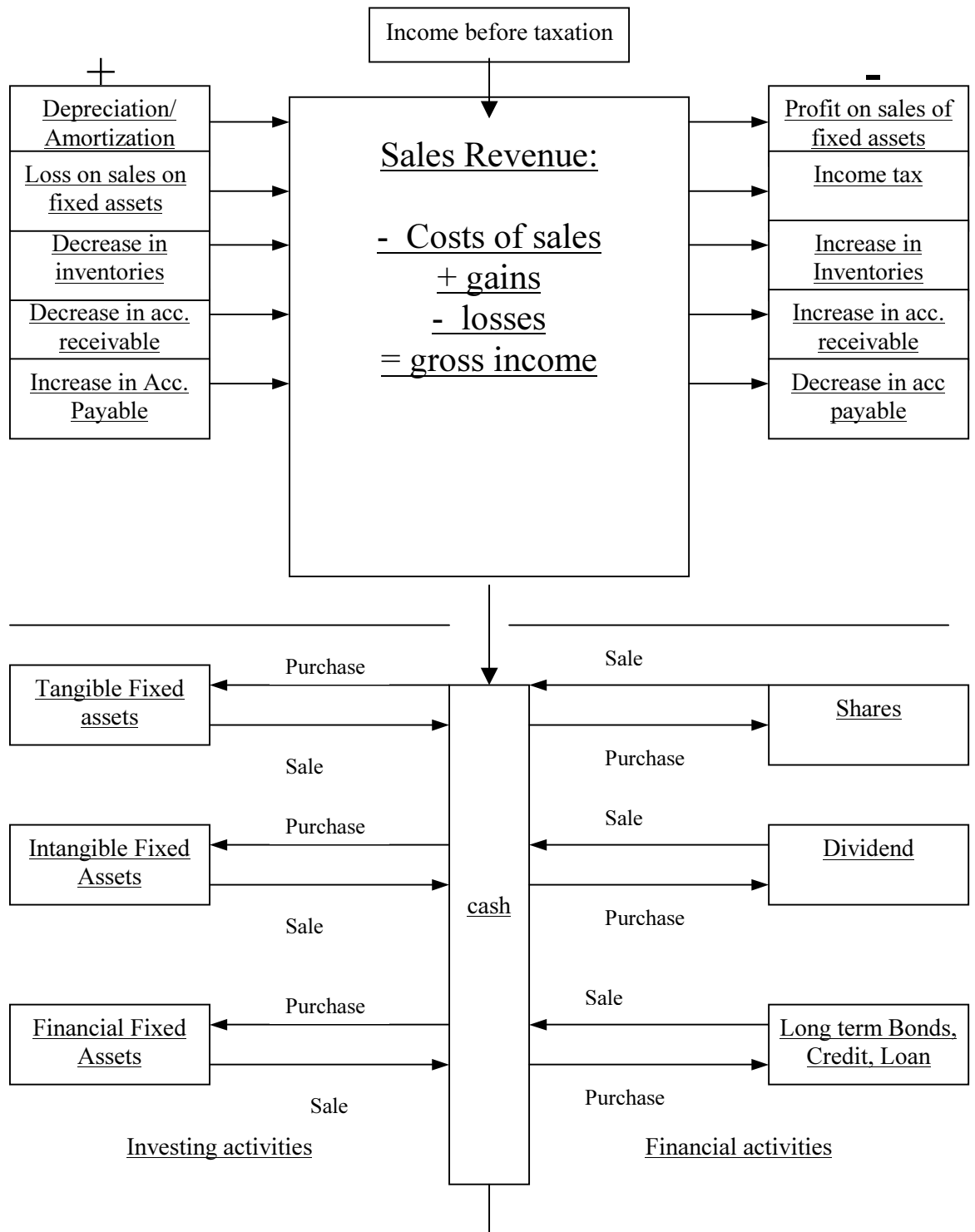
It is very often stated in the corporate finance literature that investing and financial activities are 'two sides of the same coin'. Taking new loan, for example, causes cash inflow in the company and belongs to financial activities, whereas giving loan to other entity stands for an outflow of cash from investing activities. Similarly, interest collected on the loan made stand for inflow from investing activities and interest paid on a bank loan or credit stand for cash outflow from financial activities.

Typically positive cash flow from operations indicates a desirable state in which company's cash in-flows from sales of goods and services exceed its cash out-flows concerning payments for inventories, services purchased and salaries payments. It is usually typical for companies with well-established products and position in the market, which can afford further product development and marketing activities. Negative cash flow from operating activities indicates that a business is cashing less on its sales of products than spending on operations. No business can last and operate constantly with negative cash flow from operations.

Positive cash flow from investing activities indicates growing sales of fixed assets or collection of loans from borrowers. This may be typical for businesses conducting some divestitures or changing their production facilities. It is a negative sign if the cash collected from investing activities is used to cover shortage of cash from operations. Negative cash flow from investing activities is typical for young businesses developing their production facilities.⁶

The below graph nr 2 shows how different activities are broken down according to the three types of activities and what their impact on cash is.

Operating Activities



Graph 2 Cash Flows from three different types of activities

There are typical cash flows for the above-described types of business activities. The following table lists types of cash flows typical for the three types of business activities.

Table 2 **Cash flows according to the types of business activities.**

Type of activity	The most typical cash flows
Operating activity	<ul style="list-style-type: none"> • Cash receipts from sales of goods, products and services • Cash receipts form rent, • Cash flows for inventory purchases, • Cash payments for salaries and wages, • Payments for income tax
Investing activity	<ul style="list-style-type: none"> • Purchases of fixed assets for cash • Cash sales of fixed assets • Cash purchases of financial investments (bonds, shares, commercial papers etc.) • Cash sales of financial investments in bonds, shares, commercial papers etc. (also short term) • Inflows and outflows from borrowings.
Financial activity	<ul style="list-style-type: none"> • Receipts of cash from IPO's, issuing bonds, increasing equity • Overdrafts, loans, credits – increases • Interest paid (on loans, credits, bonds) • Dividends paid out

Investing and financing activities sections of the statement of cash flows are straightforward. The operating activities section, however, is more complex. It requires analysis of operating accounts that converts figures from an accrual to a cash format.⁷ The general format for a statement of cash flows is presented in the below table nr 3:

Table 3 **The general format for a statement of cash flows**

Cash provided (or used) by:

Operating activities	1
Investing activities	2
Financing activities	3
Net increase (decrease) in cash and cash equivalents	$1+2+3 = B-A$
Cash and cash equivalents at beginning of year	A
Cash and cash equivalents at end of year	B

There are two methods that can be used for calculating and reporting the amount of net cash flow from operating activities: the indirect method and the direct method. Although both produce identical results, the indirect method is used more often because it reconciles the difference between net income and the net cash flow provided by operations. Both methods will be introduced while discussing types of cash flow forecasts.

1.3.3 The relation between the elements of a company financial statement

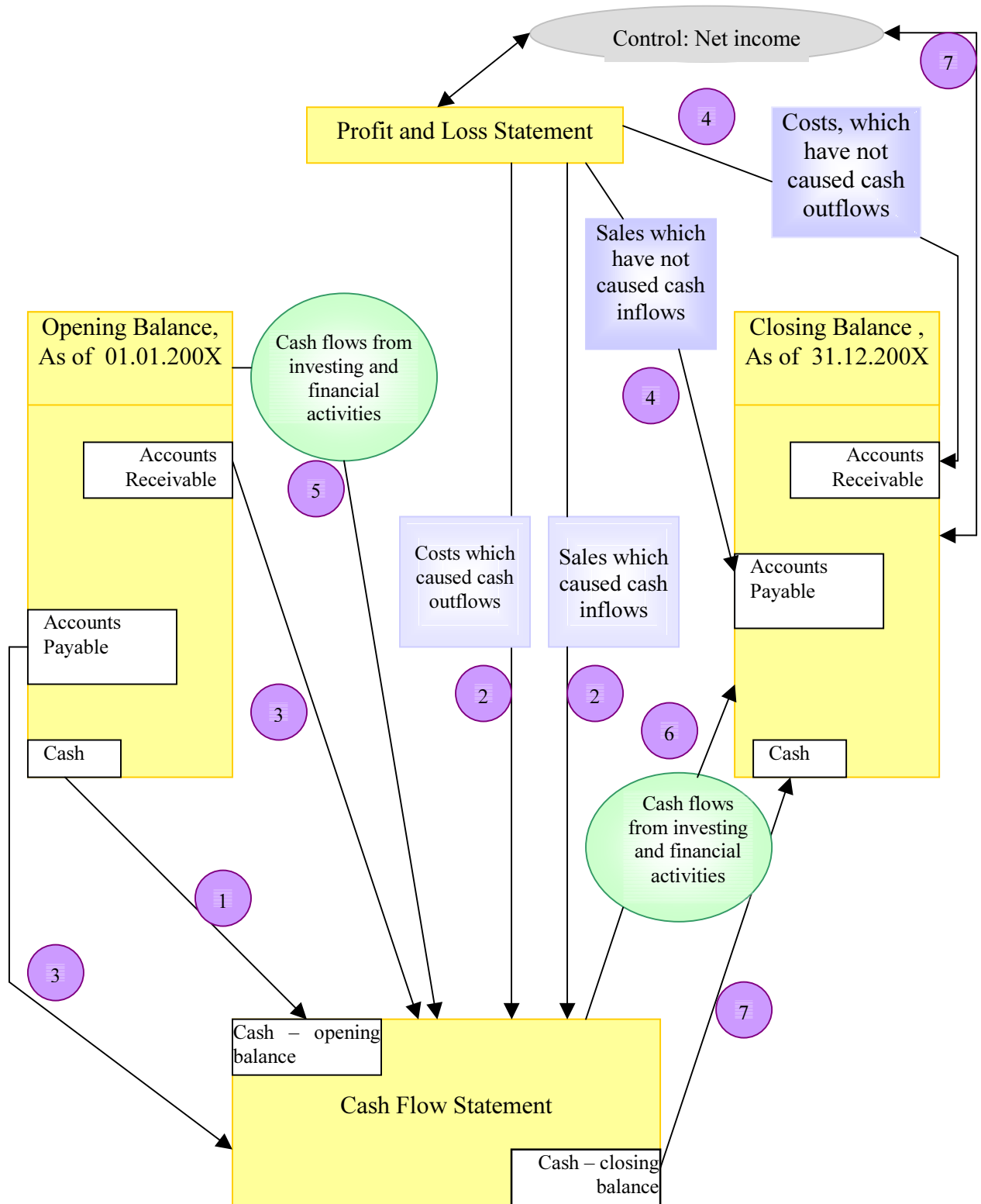
As explained in the previous paragraphs, the income statement and balance sheet are based on accrual accounting, which is based on the concept of matching. The matching principle states that revenues generated and the expenses incurred to generate those revenues should be reported in the same income statement. This emphasizes the cause-and-effect association between revenue and expense.

Many revenues and expenses result from accruals and allocations that do not affect cash. A company can operate at a profit and continually be short of cash. It can also generate huge inflows of cash from operations and still report a loss. The statement of cash flows can explain how these situations might occur. Answers to these questions cannot be found in the other financial statements.

Since net income is based on accrual accounting, income and cash flows are rarely equal in short time periods. A company may operate for several years because its cash inflows exceed its required cash payments, even though the company may not be profitable in the long run.

There are two classes of items that cause differences between income flows and cash flows: items that appear on the income statement that do not represent inflows and outflows of cash, such as depreciation, or items whose cash effects do not relate to operating activities, such as gains on the sale of depreciable assets; and operating cash inflows and outflows that do not appear on the income statement, that must be reported on the statement of cash flows. For example a company may collect in the current period cash arising from credit sales made in a previous period.

As shown on the below graph, balance sheet, profit and loss statement and cash flow statement are closely related to each other. They form a closed system in which all transactions occurring in reporting period are registered so that users of the information produced can understand the process of creating value added (profit and loss statement) as well as how the company liquidity (cash flow statement) was affected by the company decisions and operations. The balance sheet shows the final outcome of the above situations presented in P&L and CFS Statements.



Graph 3 Relations between the elements of a company financial statement

- a) Cash opening balance is the starting point for CFS. The cash closing balance stands for the final item of CSF.
- b) The P&L statement has an impact on the CFS Statement by sales and costs of the reporting period, which have not been paid for in the same period.
- c) Sales and costs which occurred in the previous periods and have not as yet been paid for accounts for balance sheet items (assets and liabilities) as of the end on the former financial reporting period. If their balance changes during the current financial period, the change will influence the company CFS statement.
- d) Current Sales and costs which have not caused cash movements will cause cash flows in the next periods and because of that they will become balance sheet items in the closing balance for the current period.
- e) Also balance sheet items regarding the investing and financial activities of a business will have impact on the company CFS. For example, a loan repayment will be a reason of cash outflow from financial activities and cash receipt from a fixed asset sale will become a cash inflow from investing activities.
- f) Some cash flows from investing and financial activities of a business may also influence balance sheet items: for example cash receipts from IPO's,
- g) After preparing BS and P&L statements, we have to make sure that the amount of net income is the same in the both statements. This is an important condition of balancing the whole system.⁸

The relations presented on the above graph can be used ex post (from the historical perspective) in the company reports and analyses provided for the company owners and the external users of financial information. Its second, perhaps even more important application is preparing pro forma budgets and forecasting the future cash flows (cash flows ex ante), which can be used by the company managers and directors in their decision processes.

1.4 The Definition, Elements, and Principles of Cash Flow Forecasting

1.4.1 Definition of Cash Forecast

A cash forecast (budget) is a presentation of cash results based upon assumptions about conditions and actions expected to exist or occur during the forecast period.

Contained within the above definition there are four points to understand:

1. The time period (forecast period) for making the plan and cash forecast must be defined. Options will be discussed later.
2. Certain assumptions about what is going to happen must be made and documented to project the cash result. Making assumptions about what is going to happen in the future is a little scary for some small business people. If a business is willing and able to think

ahead and make plans and assumptions, it is taking a giant step toward the goal of taking control of the cash flow.

3. To be complete and understandable, a cash forecast must be prepared in written form, so that it can be reviewed, edited and corrected. It may seem easier to "come up with a number with a calculator", but by doing so, an organized way to evaluate what has been done so the forecast can be improved will not be provided.
4. Specific actions based upon the assumptions must be taken to cause the plans and goals to come to life. This is called "active management." If something is expected to occur in a business and plans are to be made based upon that assumption, definitive steps or actions should be taken to cause the plan to become reality.⁹

To summarize this definition, first the forecast period should be defined, and then assumptions should be made about what is going to happen; next a written presentation of the forecast should be made, and then specific actions to cause the plan to happen should be taken.

As already discussed, the main sources of cash inflows to a business are receipts from sales, increases in bank loans, proceeds of share issues and asset disposals, and other income such as interest earned. Cash outflows include payments to suppliers and staff, capital and interest repayments for loans, dividends, taxation and capital expenditure.

Net cash flow is the difference between the inflows and outflows within a given period. A projected cumulative positive net cash flow over several periods highlights the capacity of a business to generate surplus cash and, conversely, a cumulative negative cash flow indicates the amount of additional cash required to sustain the business.

Cash flow planning entails forecasting and tabulating all significant cash inflows relating to sales, new loans, interest received etc. and then analyzing in detail the timing of expected payments relating to suppliers, wages, other expenses, capital expenditure, loan repayments, dividends, tax, interest payments etc. The difference between the cash in- and out-flows within a given period indicates the net cash flow. When this net cash flow is added to or subtracted from opening bank balances, any likely short-term bank funding requirements can be ascertained

There is no single best way to set out a cash flow forecast. Some refinements to the most basic ways of setting out the information will give a more sophisticated view of the business's situation.

With these two types of cash flow separated the self-sufficiency of the day-to-day working can be gauged. A net outflow in operational cash flow is usually an indicator of problems that need to be addressed quickly

Cash flow forecasting enables the managers to predict peaks and troughs in the cash balance. It helps plan borrowing and tells how much surplus cash the business is likely to have at a given time. Many banks require forecasts before considering a loan.

1.4.2 Elements of a cash flow forecast

The cash flow forecast identifies the sources and amounts of cash coming into the business and the destinations and amounts of cash going out over a given period. There are normally two columns listing forecast and actual amounts respectively. The forecast is usually done for a year or quarter in advance and divided into weeks or months. It is best to pick periods during which most of the fixed costs - such as salaries - go out.

The forecast lists:

- receipts,
- payments,
- excess of receipts over payments - with negative figures shown in brackets,
- opening bank balance,
- closing bank balance.

It is important to base initial sales forecasts on realistic estimates. In case of established businesses, an acceptable method is to combine sales revenues for the same period 12 months earlier with predicted growth. The forecast is a live entity. It will need adjusting in line with long-term changes to actual performance or market trends.¹⁰

Effective cash flow management is as critical to business survival as providing services or products. Some of the key principles to help reduce the time gap between expenditure and receipt of income are the following:

Customer management

- Defining a credit policy that clearly sets out the standard payment terms.
- Issuing invoices promptly and regular chasing outstanding payments (using an aged debtor analysis to keep track of invoices that are overdue and monitor the performance in getting paid).
- Considering exercising the right to charge penalty interest for late payment.
- Considering offering discounts for prompt payment.
- Negotiating deposits or staged payments for large contracts.
- Considering using a third party to buy your invoices in return for a percentage of the total (factoring).

Supplier management

- Asking for extended credit terms.
- Giving suppliers incentives such as large or regular orders may help, but there have to be a market for the orders placed.
- Alternatively, considering reducing stock levels and using just-in-time systems.

Asset management

- Considering leasing fixed assets (equipment), or buying them on hire purchase. Buying outright can result in a huge drain on cash in the first year of business.

Factors hindering cash flow:

- Poor credit controls - failure to run credit checks on customers is a high-risk strategy, especially if the debt collection is inefficient.
- Failure to fulfil an order – lack of delivery results in lack of payment.
- Ineffective marketing - if sales are stagnating or falling, marketing plan should be revised. Are customers properly targeted?
- Inefficient ordering service.
- Poor management accounting - Key accounting ratios can alert to an impending cash flow crisis or prevent from taking orders which can't be handled.
- Inadequate supplier management - Suppliers' overcharging, or taking too long delivery times.¹¹

2 The Theory of Cash Flow Management

2.1 Motives, Objectives, and Time Frames of Cash Forecasts

2.1.1 Reasons for cash forecasting

It pays to forecast cash. According to a survey of 362 companies conducted by Chicago-based consulting firm Treasury Strategies, investors who execute an effective cash forecasting program gain 30 basis points of added portfolio return over their industry peers who don't.

The study found that only 50% of responding firms use formalized forecasting models or processes. The reasons why varied from the unreliability and irregularity of incoming data to costs, lack of time to devote to forecasting, and not having a clean account structure with banks. Data are critical to effective cash forecasting and these information flows are not always set up properly.

In companies that have both customer relationship management (CRM) and enterprise resource planning (ERP) systems, information may appear coordinated. But the reality is each subsidiary/department may not report all their information, which would render forecasting inaccurate.¹²

However, at some companies cash forecasting programs are undisciplined and don't always comply with established policies. When planning the short- or long-term funding requirements of a business, it is more important to forecast the likely cash requirements than to project profitability. Whilst profit, the difference between sales and costs within a specified period, is a vital indicator of the performance of a business, the generation of a profit does not necessarily guarantee its development, or even the survival. More businesses fail for lack of cash flow than for want of profit.

Having visibility into the effectiveness of the credit and collections operation is vital to accurately forecasting cash. The below graph (Graph 4) shows the place of cash management between the company cash application and workflow.



Graph 4 Place of cash management activities in a business

2.1.2 Objectives of cash forecasting

In the current economy, cash is the king, and cash forecasting is more important than it has ever been. Cash is not as readily available as it was before, so companies are looking into ways to gain better visibility into cash flow and to monitor it for better planning. There is a growing need for companies to forecast more accurately because in addition to tightened cash flow, there is an increasing need for timely forecasts. As market conditions have become volatile.

In order to make well informed cash, liquidity and foreign exchange management decisions, the Corporate Controller or Treasurer needs cash flow projections to be as accurate as possible. In fact, one of the primary objectives of operational forecasts are to serve as the basis for deriving realistic cash flows. Usually company-specific conditions set the parameters for cash forecasting, but overall objectives and difficulties remain consistent across all sectors.

Accurate cash forecasting enables companies to ensure liquidity, maximize investment income, minimize borrowing costs, secure new lines of credit, manage currency exposures and anticipate financial risk. Companies that don't produce good cash forecasts are penalized in the markets and by their bankers and business partners. After witnessing the punishment that the capital markets have inflicted for missing earnings estimates, it is easy to understand why forecasting is a priority for CEO's and CFOs.

Forecasting is an extraordinarily difficult task, but companies are achieving greater accuracy and pushing their forecasts further out by exploiting new technology and improved modelling techniques and by ensuring that business units submit timely, comprehensive projections. Because the variables involved depend entirely on a company's business lines and cash cycles, no single forecasting approach is meaningful for all organizations. However, most companies share similar forecasting objectives and face common problems.¹³

The types of questions that a cash forecast aims to answer are:

- Will the business have to borrow money next year?
- When exactly will the cash be needed?
- When might be the best time to make the down payment on an expansion?

A forecast is simply a record of probable income and expenditures for a future period. It won't solve cash management problems, but it will provide the information and control the need to deal with them. With a written cash forecast, it is possible to foresee when to expect a cash shortage or excess so that borrowings and investments can be planned. It will also help to show lenders exactly when and how you'll pay them back.

A cash forecast also serves as a control mechanism if projected figures are compared with actual figures. Discrepancies will be clearly visible if there is a cash budget available for review - though the budget won't tell the reasons for a problem. No matter what causes the problem the smaller receipt will indicate it and the cash forecast will help to keep fingers on company's pulse.

Cash projection, with monthly performance reviews and revisions, is the first step to sound cash management. From here, owners can go on to properly time loans and repayments, assess the impact of borrowings and investments, and fine tune the company's cash needs for continued growth

Companies can look to their financial services providers for help in improving cash forecasting and ensuring strong financial controls and processes. CFOs or controllers document how the forecast process works, list sources of incoming data, and regularly communicate to colleagues the importance of forecasting on the company's bottom line.

Effective cash forecasting is particularly important at a time when interest rates are expected to rise. Having a more dynamic forecast will help companies better understand and ensure their cash positions.

Cash flow from receivables is the critical component in working capital management, and the ability to forecast cash inflow is critical. Credit and collections departments now have increased responsibilities to increase their efficiency, eliminate cash flow bottlenecks and to report the ever-changing patterns of payments from customers. This information helps finance organizations to plan for cash management efficiently across all operations.

Most ERP systems give cash forecasting based on the company's net terms. They do not provide cash forecasting based on customer history. Likewise, they do not give an intuitive look into when the payments will come in. Third-party tools are gaining ground by giving finance departments the ability to provide accurate cash forecasting with reduced administration.¹⁴

2.1.3 Time frames of cash forecasts

For its short-term purposes, the company's treasury department prepares a 90-day rolling cash forecast for its regulated utility companies to determine short-term investing strategies and to ensure that adequate cash is available to meet working capital needs. To improve accuracy, treasury should identify large recurring payments - fuel purchases, taxes and dividends, for example - and large one-time payments such as bond purchases and redemptions. Business units provide treasury with the necessary data weekly by e-mail or interoffice mail, and the forecast is updated each week to reflect the most current information.

In addition to this short-term projection, finance departments should prepare a few-year forecast using a financial planning models – for example from consulting firms. This forecast should enable a company to monitor its overall projected financial condition and to determine whether it needs long-term debt financing.

On a monthly basis, the utility finance department should coordinate with the business units, which enter their current estimates into the model to update the forecast. Companies with diverse businesses or cyclical operations may not be able to generate long-term cash forecasts.¹⁵

2.2 Types of cash flow forecasts and their approach

2.2.1 Types of cash forecasts

There are three different types of cash flow forecasts because different users have different needs. Cash forecasts in general take three forms: liquidity forecasts, operational forecasts and strategic forecasts.

The objective of **liquidity** forecasts is to aid short-term cash management by identifying nearby receipts and payments. Such forecasts normally look 7-30 days forward to a high degree of precision. The users of such forecasts are usually Corporate Treasurers looking to ensure that there are no idle cash balances, appropriate headroom is available at the right places in the right time for major payments, and unnecessary interest charges are avoided.

Operational forecasts exist to help management determine the overall funding and investment patterns required by the company's annual business plan, monitor liquidity and financial covenants, and plan actions related to redemptions or new credit lines. The forecast period for most companies is 12 months, but can be up to 18 months. Users of such forecasts are: Financial Planners and Controllers, Boards of Directors and Treasurers.

Strategic forecasts help companies to understand and validate their long-term debt to equity requirements based on their strategic plans. These forecasts are less precise than the other two types of forecasts. The forecast period will mirror the strategic plan period i.e. 3-5 years. Users are the same as for operational plans.¹⁶

2.2.2 Transaction-Based Approach vs. The Direct Method

Different forecasting techniques are used depending on the type of cash flow forecast required, but essentially there are two alternative approaches, a transaction-based approach and a funds flow approach.

Transaction-based approach forecasting involves working directly from current and prior period income statement. This technique uses specific knowledge of cash conversion rates from sales and payment to creditors, overheads, investments, interest, tax etc. This is most helpful when trying to understand short-term liquidity and is therefore the most common type of forecast undertaken for Treasury purposes.

Under the Direct Method the following sources of operating cash inflows and outflows are reported (cash flow ex post) or forecasted (cash flow ex ante):

- Cash collected from customers, lessees, licensees, and similar parties
- Interest and dividends received
- Any other operating cash receipts
- Cash paid to employees

- Cash paid to suppliers of goods and services
- Interest paid
- Income taxes paid
- Any other operating cash payments

Net income (accrual accounting) and net cash flow (cash accounting) will almost never be the same because of non-cash transactions that impact the performance of a business. For example, depreciation expense, a non-cash expense, appears on the income statement under accrual accounting but is not part of net cash flow. The below table shows how to derive cash items (left column) from their accrual counterparts (right column).¹⁷

Table 4 Cash Flows from Operating Activities using the Direct Method

Cash Collections from Customers	Sales - increase (+ decrease) in Accounts Receivable + increase (- decrease) in Deferred Revenue
Cash Payments to Suppliers	Cost of Goods Sold + increase (- decrease) in Inventory - increase (+ decrease) in Accounts Payable
Cash Payments for Salaries	Salary expense - increase (+ decrease) in Accrued Salaries Payable
Cash Payments for Other Operating Expenses	Other Operating Expenses - Depreciation and Amortization Expense for Period + increase (- decrease) in Prepaid Expenses - increase (+ decrease) in Accrued Operating Expenses
Cash Revenue from Interest	Interest Revenue - increase (+ decrease) in Interest Receivable
Cash Paid for Interest	Interest Expense - increase (+ decrease) in Accrued Interest Payable
Cash Revenue from Dividends	Investment Income - increase (+ decrease) in Investment Account
Cash Paid for Taxes	Tax Expense - increase (+ decrease) in Accrued Taxes Payable - decrease (+ increase) in Prepaid Tax

2.2.3 The Funds Flow Approach vs. The Indirect Method

The **funds flow approach** to forecasting starts from operating profit and adjusts for known non-cash items and expected forecast movements in balance sheet items. It is the second method that can be used to calculate the Cash Flows from Operating Activities and it is referred to as the Indirect Method. Using the Indirect Method, cash flows from Operating Activities are reported or forecasted by adjusting net income for revenues, expenses, gains, and losses that appear on the income statement but do not have an effect on cash (see table 5).

Table 5 Cash Flows from Operating Activities using the Indirect Method

Net Income
Adjustments to reconcile net income to net cash provided by operating activities
+ Depreciation
- Amortization of Bond Premium
+ Amortization of Bond Discount
- Gain on Sale of Equipment
+ Loss on Sale of Equipment
+ Decrease in Accounts Receivable
- Increase in Accounts Receivable
+ Decrease in Inventory
- Increase in Inventory
- Decrease in Accounts Payable
+ Increase in Accounts Payable
- Decrease in Accrued Expenses
+ Increase in Accrued Expenses
+ Decrease in Prepaid Expenses
- Increase in Prepaid Expenses
- Decrease in Taxes Payable
+ Increase in Taxes Payable

A comparison of the Direct Method with the Indirect Method indicates that either method will generate the same results, however transaction-based forecasts are the only way to meet Treasury needs. Unless Financial Control requirements are otherwise, funds flow forecasts are usually for performance management purposes.

Transaction-based forecasting is most helpful when trying to understand short term liquidity and is thus most commonly the type of forecast undertaken for Treasury purposes since it captures short-term timing factors. However, because of the level of detailed knowledge required of specific transactions and their timing, it is difficult for such forecast to be accurate as the time horizon extends beyond a few days or weeks. Also, the more

widely the technique is used, the more time consuming the forecasting becomes because of the level of complexity.

Not surprisingly, most companies' Financial Departments rely on the funds flow approach for their operational and strategic forecasts as it is both simpler and easier to apply. Moreover, it is consistent with their financial accounting systems and typically derive a cash flow statement from the income statement and balance sheet. On a monthly or quarterly basis It is more likely however to appear less accurate when reviewed in hindsight because of profit variances and timing differences in major receipts and payments between forecast and actual. These factors alone often create dissonance between Finance and Treasury departments because each department has a different view on month-end cash forecasts. But since Financial Control forecast is not intended to be precise (and may not include specific timing differences known to Treasury) this should not be surprising.

Interestingly, the key reason why Finance Departments tend not to use transaction based forecasting is because, historically, they have not identified the need to monitor cash flow beyond their short time requirements. In practice, it is only when a liquidity and funding crisis happens, that we see transaction-based forecasting becoming the key technique that is focused on. In these situations, companies need to get a more detailed understanding of expected cash movements and requirements.¹⁸

2.3 Ways of Improving Cash Flow

2.3.1 Operational techniques of improving cash flow

Today's businesses are operating in a tighter capital environment, one in which investors no longer have the appetite—nor the ability—to fund several years worth of operating losses. Some companies have invested in organizations and infrastructure anticipating market demands that have not yet materialized; others have experienced explosive growth beyond their ability to manage profitably; while still others are operating with inadequate financial and operational controls. With this as backdrop, many companies are finding it necessary to radically change direction and strategy to improve profitability—often resorting to layoffs alone, when much more is needed.

A cash flow crunch can hit even the most profitable business, but good planning can ensure small and medium-sized businesses have access to cash when they need it most. Concerns about cash flow issues was the second biggest issue that kept business owners and managers awake at night. More than 29% of the business owners and managers surveyed said concerns about their staff kept them awake at night, while 27% were worried about their cash-flow. (The survey of 175 businesses was undertaken by National Australia Bank in April-May 2005.) The finance theory business practice offer a wide range of ways to improve cash flow and the most important ones are described in the below paragraphs.

Increasing the efficiency of operating cycle is a good place to start. It can be achieved by:

- Reducing excess stock,

- Reducing costs,
- Obtaining stock on consignment, so it doesn't need to be paid for until it's sold; or
- Reducing manufacturing times, so stock turnover is quicker.

Offering credit can increase sales but it can also tie up money. Examining how long it takes to collect payments will determine if an action is needed. Encouraging progress payments can improve cash flow, as can credit card facilities. Some businesses also offer discounts for early payment.

By reviewing and possibly modifying the current price structures and costs, it may be possible to free up money to improve the cash flow, without having to sell more products. Alternatively, increasing sales should also positively influence cash flow, provided any operating cycle difficulties have been addressed.

While reducing sales appears to conflict with the above point, the time lag between supplier payment and customer payment can burden the cash flow. Reducing sales volumes may seem radical, and while not a strategy appropriate for many businesses, it can be the ideal launching pad for growing the sales in future.

The most important factor in financing is planning and obtaining finance tailored to business. Short-term finance, such as an overdraft, can help manage seasonal issues, but longer-term finance should not be used to attack short-term cash flow problems. Another option is debtor finance, where lenders provide cash advances against outstanding invoices.¹⁹

Improving Receivables

If sales were paid for the instant they are made, there would never be a cash flow problem. Unfortunately, that doesn't happen, but cash flow can still be improved by managing receivables. The basic idea is to improve the speed with which materials and supplies are turned into products, inventory into receivables, and receivables into cash.

Specific techniques for doing this are:

- Offering discounts to customers who pay their bills rapidly.
- Asking customers to make deposit payments at the time orders are taken.
- Requiring credit checks on all new noncash customers.
- Getting rid of old, outdated inventory.
- Issuing invoices promptly and following up immediately if payments are slow in coming.
- Tracking accounts receivable to identify and avoid slow-paying customers. Instituting a policy of cash on delivery (c.o.d.) is an alternative to refusing to do business with slow-paying customers.

Managing Payables

Top-line sales growth can conceal a lot of problems—sometimes too well. While managing a growing company, expenses have to be watched carefully. Any time and any place expenses are seen growing faster than sales, costs should be examined carefully to find places to cut or control them.

Techniques of careful cash spending:

Takeing full advantage of creditor payment terms (no advance payments unless required),

- Using electronic funds transfer to make payments on the last day they are due.
- Communicate with suppliers so they know the financial situation. If a delay in payment, is ever needed, suppliers trust and understanding are needed.
- Careful considering vendors' offers of discounts for earlier payments. These can amount to expensive loans to suppliers, or they may provide the business with a change to reduce overall costs. The devil is in the details.
- Not always focusing on the lowest price when choosing suppliers. Sometimes more flexible payment terms can improve the cash flow more than a bargain-basement price.²⁰

2.3.2 Establishing the cash flow targets and creating the right behaviour

Companies need to set organizational targets first at group level and then at division level around net debt management to create the focus on cash and working capital. Further, they need to identify key cash-related performance measures and link these into their performance management system.

Sometimes in corporate planning, net debt become a safety valve that is unconsciously opened when other areas of performance suffer. Successful companies, whatever constrained for capital or not, establish targets for net debt. These encourage their divisions to look internally in their cash (overhead) costs and working capital to fund the capital investment needed to generate earnings' growth.

But setting targets alone may be insufficient. Including key cash-performance measures in monthly management reporting, and linking these to agreed performance contracts, is more likely to encourage attention to cash management and accurate forecasting. For many organizations, such measures should not necessarily be any more complex than basic working capital ratios such as those outlined above. Finally, management should consider increasing the weighting given to cash performance targets and measures in incentive compensations plans.

Summarizing, cash and working capital management should be a key-part of any company's performance measurement systems. Companies' concerns over the quality of cash forecasting processes are often compounded by a lack of recognition that differing users have different needs and thus different levels of accuracy . These are reflected in how such users go about producing the forecasts and the methodology and forecast intervals used.

Improving processes can result in more accurate forecasts but it is the degree of organizational alignment behind cash of an important measure of performance that seems to ensure greater confidence in planning and forecasting more than the quality of forecasting processes themselves. Organizational alignment can be achieved by setting performance targets and measuring KPI's (Key Performance Indicators) that inform on progress towards such targets. Cash Management does not only matter most in a downturn.

It can help companies adapt or maintain investment levels to changing market requirements.²¹

2.3.3 Managing Cash Shortfalls

The key to managing cash shortfalls is to become aware of the problem as early and as accurately as possible. Banks are wary of borrowers who have to have money today. They'd much prefer lending it before it is needed, preferably months before. When the reason a business is caught short is that the management failed to plan, a banker is not going to be very interested in helping it out.

If it is assumed from the beginning that a business will someday be short on cash, a line of credit at the bank can be arranged for. This allows borrowing money up to a preset limit any time it is needed. Since it's far easier to borrow when it is not needed, arranging a credit line before cash shortage is vital.

If bankers won't help, the business can turn next to its suppliers. They are more interested in keeping the business going than a banker, and they probably know more about the business. Terms from suppliers can often be extended that amount to a hefty, low-cost loan just by asking. That's especially true if the business has been a good customer in the past and kept them informed about the financial situation.

The useage of factors can also be considered. These are financial service businesses that can pay today for receivables that may not otherwise be collected for weeks or months. Since factors demand a discount, less cash will be collected but the business will eliminate the hassle of collecting and will be able to fund current operations without borrowing.

The best customers can be asked to accelerate payments. The situation should be explained and, if necessary, a discount should be offered of a percentage point or two off the bill. Back assets such as machinery, equipment, computers, phone systems and even office furniture can be used to raise cash by selling and leasing them. Leasing companies may be willing to perform the transactions. It's not cheap, however, and the business could lose its assets if it misses lease payments.

Bills paid should be chosen for payment carefully. Payroll should be made first - unpaid employees will soon be ex-employees. Crucial suppliers should be paid next. The rest should be asked if th epayment can be skipped or paid partially.

Cash is the fuel that drives business, and many financial analysts consider the condition of a company's cash flow to be one of the most important indicators of that business's financial health. After all, a well-managed flow of cash - like a strong heart - is usually indicative of a healthy business, while poorly managed cash flow, or a weak heart, can cause problems that affect the entire business.

Unfortunately, companies facing cash flow crunches simply throw money at the problem, which is a temporary solution at best, akin to treating heart disease with drugs alone. And just as heart surgeons encourage their patients to eat well, increase their physical activity

and reduce stress, cash flow management requires more than just a financial fix. It requires a holistic approach that focuses on making a company's entire supply chain operate more efficiently. After all, the faster goods move from seller to buyer, the faster sellers can be paid.

It's important to note that a cash flow crisis is usually a symptom of a broader supply chain sickness. Treating this illness requires the attention not only of the CFO but also of the logistics manager, the purchasing department, operations, the tech guys and even the CEO. And while working with a bank to open a line of credit or amending an existing financial instrument can certainly help, the only real way to address a cash flow problem is to take a holistic, long-term view of the issue. Fixing a cash flow problem requires companies to examine and improve the three key flows of commerce: goods, information and funds.²²

Following The Goods

The faster a seller moves goods to a buyer, the faster the buyer will pay for those goods, and that impacts cash flow. Therefore, businesses must ask themselves how they can better improve the speed at which their goods exchange hands. And this goes well beyond the actual transportation of the goods. Rather, it requires an examination of the entire process--from sales all the way through invoicing.

It's vitally important for a company's decision-makers - and for small and growing firms, that usually means the owners - to be plugged into the sales process, examining the data from the sales staff on a regular basis. How much was sold yesterday, how much will be sold today, and what about tomorrow? The more accurate this information, the tighter the inventory. And the tighter the inventory, the better the cash flow.

Speeding the funds

This is the area where business owners usually look for a quick solution. The list of best practices from a financial perspective on how to improve cash flow includes the following remedies:

- **Doing customer credit checks.** Perform credit checks on all new and non-cash customers. This process can immediately reduce bad debt, since to customers who haven't proved they deserve it will not be offered more credit.
- **Offering term discounts.** To encourage customers to pay on time, consider offering term discounts. For example, if invoice terms are "net 30/2/10," customer payment is expected in 30 days; however, a 2 percent discount can be offered to customers if payment is made in 10 days.
- **Asking customers to pay by cash or credit card.** Rather than sell on term payments, sell on cash or credit card payments.
- **Charging late fees.** Indicate on the invoice when payment is due, and specify the penalty interest for late payment.

These solutions have been and will remain key ingredients in helping to cure cash flow ailments. But they're not the only funds-related prescriptions. The following options should also be considered:

- **C.O.D. (Collect On Delivery).** C.O.D. delivers cost savings and processing efficiencies that improve cash flow. This process may seem archaic, but the reality is that business will be paid faster with C.O.D. than a traditional 30-, 60- or 90-day term agreement.²³

- **Inventory financing.** If a holistic supply chain approach is taken, it can be realized that realigning the supply chain can enable the business to gain economies of scale, reduce inventory expenses and ultimately obtain additional working capital. Most traditional banks are simply focused on the money flow, not the supply chain.
- **Credit insurance.** Today's business environment pretty much mandates that small companies go global. But conducting business with trading partners overseas can be risky. Credit insurance can help mitigate the risks by protecting the value of the receivables. By guarding the bottom line against nonpayment - or even slow payment - of invoices, the business can breathe easier about its decision to conduct cross-border trade. And credit insurance can be used on a case-by-case basis - for example, with new customers whose payment histories the business is unfamiliar with. Once a more solid relationship with them has been established, charging for the credit insurance can be stopped.

To be successful at cash flow management is to make sure all three flows of commerce - goods, information and funds - are working together to accelerate the movement of money through the supply chain. Cash flow can be - and must be - managed wisely, and better cash flow management goes hand-in-glove with better supply chain management. This will help create a healthy, strong business

2.3.4 Computer technologies in cash forecasting

Lately, there has been debate about whether cash forecasting is best done by people or by a box. It's probably best done by a combination of both. Software tools give a good starting point. As much intelligence as possible is put into the tools. In this case, let's call it the box. What the box tells should be reviewed and the final changes should be made manually to produce a cash forecast.

The starting point is the open accounts receivables. The box should take the invoice dates and space those out based on past payment patterns of the customers. Most systems can keep the customer DSO and average day of the payment receipt for a customer. In most cases, cash forecasting based on past payment patterns provides fairly reasonable cash forecasting. This forms the baseline of most cash forecasting tools.

The capacity to refine the baseline cash forecast is needed. This requires the ability to record the impact of changes based on knowledge gained by your collectors in speaking to the customers. If the collector knows, from talking to a customer, that a big payment will come in later or earlier than was forecasted, the program should have the ability to shift the forecast accordingly.

This combination of baseline cash forecasting and capturing knowledge from collectors with real-time changes incorporated is a fairly accurate cash forecasting tool. Once an accurate cash forecast has been prepared and the data can be used to set goals for the staff,

and the collectors can be pointed in the right direction. The forecasting software should give the ability to monitor how actual receipts are doing against the forecasts and to quickly tell you where you are falling short.

If a weekly cash review based on cash forecasting and actual receipts data is done, customer problems are quickly escalated. Visibility is also very important to reduce the cash conversion cycle. The longer the receivables are open, the lower the chances of getting paid. Any information that can accelerate the process can help companies tremendously.

In summary, cash forecasting tools are likely to include the following capabilities:

- A quick baseline forecast of when receivables should be paid, based on customer history.
- The ability to refine the baseline forecast, based on collectors' knowledge of daily customer interactions.
- Visibility into the numbers to locate problems and resolve them rapidly.

The ability to collect data faster and to have accurate, constantly updated cash forecasts can have several other advantages. Operationally, collectors can then focus more on collections instead of preparing data for cash forecasting. Currently, most collectors spend about 10 to 15 percent of their time on gathering and preparing data for cash forecasting. As in other facets of business, modern tools will provide the ability to manage cash forecasting with lowered costs.

That said, the human elements of cash forecasting and collections will probably never be eliminated. Good customer relationship management cannot be ignored, and will always be an important part of collections and accurate forecasting, though it seems likely that technology will creep more and more into the picture.

Finance departments have traditionally been very conservative in adopting new technologies and in most organizations have continued to use spreadsheets, manual and paper-based systems. Right now, only "early adopters" of new technology are employing the types of tools discussed above for their cash forecasting. Within a couple of years, this sort of functionality seems likely to become the norm rather than the exception. The early adopters will gain a short-term advantage over their competition, but these technologies will, in all likelihood, eventually become the rule.

The current state of the economy may actually speed this process, since companies are looking for ways to gain a tighter grip on their existing revenue streams. CFOs also are facing increased pressure from 'Wall Street' to produce accurate cash forecasts.

While no crystal ball is perfect, one thing is for sure: CFOs and finance professionals won't stop looking for ways to do their jobs better, faster and cheaper. For this generation of finance professionals, there are new technologies there to greet them.²⁴

3 Inbound Cash Forecasting – practical example

3.1 Cash and Cash Flows in the Company Group

3.1.1 Cash and cash equivalents identification

The business examined is active in education and travel industry and in fact it is a group of seven companies managed by the same management board and belonging to the same owners. The company group in question consists of a mother company and six daughter companies. The mother company owns 100% stocks of the daughter companies. They are mainly split for organizational purposes and due to different types of their activities, and products offered. The mother company's Head Quarters are based in London whereas the operations are spread over a few British cities.

The organizational structure is reflected in the business's structure of bank accounts. Because the seven companies are separate entities, they need to have their own current bank accounts in order to pay bills to their creditors and collect money from debtors. However, they can freely give loans to each other by simply moving cash from one bank account to another. Since the owners of the mother company are at the same time the owners of the daughter companies, no loan deals have to be involved.

The six daughter companies are not allowed to overdraw their bank account and only the mother company has an overdraft limit set up and approved by the company's bank. Whenever there is a debit balance appearing in any of the daughter companies' accounts, a loan is given from another company belonging to the group, so that the balance constantly stays in credit in all daughter companies. This is why controlling the amount of cash in banks means in practice controlling the credit balance on the six accounts and controlling the credit or debit balance on the account belonging to the mother company.

In the company group a clear structure of bank accounts is highly valued. All current accounts, except for one, are kept with a British bank and are carried in the national currency – pound sterling. The only foreign account is carried in euro and it is kept with a continental European bank based within the Euro-zone. The purpose of this account is to collect payments from local customers and agents, who are also invoiced in euro and for whom it is much more convenient to organize their payments within the borders of their country. Funds collected in this account are systematically transferred to the UK.

Due to the nature of the business and the physical distance between the operations and the head quarters, three companies in the group need to keep their own petty cash. These are small amounts used for relatively insignificant everyday spending, aiming to facilitate running the operations of the smaller daughter companies.

To conclude the above investigation, we can describe the company cash and cash equivalents as: cash in seven current bank accounts, overdraft in a bank accounts, foreign currency current bank account, petty cash held by the operations. Due to the fact that the company cash flow is relatively thig, there is usually no idle cash which would need to be converted into liquid short term investments and thus there are no cash equivalents in the business.

3.1.2 Bank reconciliations and reporting on the balances of cash

For managing cash properly, it is very important to be constantly aware of the current cash balance. In the company group analyzed, all current bank accounts are reconciled on an ongoing basis. The company accountants start every working day with analysis of the cash received and paid out of the bank accounts in order to establish not only the total amount of funds available in the bank account but also be aware of the total amount of unrepresented suppliers cheques (cheques that have not as yet been banked), i.e. cash which will definitely leave the account in the nearest future.

For the reconciliation purposes it is very important to realize that the items listed on the credit side of the bank statement are reflected on the debit side of the bank account in the company accounting system, as they both stand for increases of the balance on the account (since it is an asset item in the balance sheet). And similarly, the items listed on the debit side of the bank statement are reflected on the credit side of the bank account in the company accounting system as they both stand for decreases of the balance on the account.

Every morning, before any decisions regarding new spending are taken, the company sales and purchase ledger managers have to make sure that all the cash in- and outflows have been posted to system and the accounts are up to date. In practice this means that the company purchase ledger manager has to go through each and every outflow and check, by reference number, if they have already been posted. This task may cause difficulties as the company has set up many direct debits with its suppliers and it is not always the case that the purchase ledger clerk has received the relevant invoices.

Similarly, the sales ledger manager has to check if all cash receipts have been posted to the accounting system. In order to do it properly and match the relevant bank receipts with the right customer accounts, there must be a sufficient amount of information regarding the receipt. First of all, the payer has to be identifiable by name or address, their account number in the accounts system must be retrieved and finally the allocation details for the received cash have to be stated. This task can only be conducted smoothly if there is sufficient information flow between the company cash collectors and the company customers and agents. Normally an experienced company credit controller is able to identify the majority of cash receipts due to his or her knowledge of sales invoices and on the basis of payment confirmations received or eventually, by asking and discussing the receipts with the company bookings department.

After completing this task, both the company sales and purchase ledger managers have to be able to establish also what is the amount of cash posted to the system already before the actual cash in- and outflows. For the sales ledger manager it means identifying the amount of cash posted to the system before the actual receipt (i.e. credit card payments) and for the purchase ledger manager it means identifying the cheques already raised but not yet banked by the suppliers (unpresented).

3.1.3 Characteristics of the company cash flows

As discussed in the theoretical part of the thesis, it is the easiest to systemize and analyze the company cash in- and outflow by dividing them into the three categories discussed: operating, investing and financing cash flows. Because this thesis covers the issues of short-term financial liquidity, company flows from investing and financial activities will not be here discussed. The decisions concerning them fall in the scope of management decisions and usually are supported by the information provided in the operational cash flow; idle cash from operations will be invested (investing activities) and cash shortage will need to be covered by additional borrowings (financial activities).

The most important inflows of cash in the company group analyzed are the inflows from operating activities. They are the most regular receipts and the main source of the company's cash used to pay bills, wages and taxes. They mainly consist of cash coming in from collection of receivables, refunds received from suppliers and collection of cash from visa system. These are the cash receipts that appear on the credit side of the companies' current bank accounts and have to be reconciled and posted to the accounting system regularly.

The amount cash inflowing from customers and agents depends mainly on the company sales activities. The more sales is generated by the company operations that more cash can be collected. However, in the business analyzed, sales and thus also cash inflows from collection of receivables have purely seasonal character. This is due to the fact that the six of the daughter companies are active in touristic and education industry which normally gets busy in the summer season. In practice it means that the company group experiences the biggest inflow of cash from April to August and suffers from severe cash shortage in late autumn and winter.

This seasonal pattern of the company group's inbound cash flow has important implications for cash forecasting and sets great challenges for ensuring the company short term liquidity. In summer, the idle cash gathered in the company current bank accounts has to be invested in more profitable financial instruments whereas during winter these instruments have to be liquidated so that they can be used to help the shortage of cash. In practice this means that inbound cash forecasting has to be equally accurate both in summer and winter season, however there is more pressure on the forecasters in the winter as shortages of cash may have more serious implications for the business than the cash excess.

As already discussed in the theoretical part, in case of strong seasonal sales, cash flows forecasting is extremely difficult. The seasonality of the business causes that it becomes impossible to use the most common and traditional tools of forecasting cash; extrapolating cash receipts on the past six months does not bring expected and accurate results.

The most important groups of the company group's cash outflows are: payments to local organizers, other group travel requests, host families, trade creditors, freelance teachers, childcare, rent, business rates, bills, international payments, refunds, regular payments, payments of salaries, PAYE+NIC, VAT, other payments. Local organizers and host families always have to be paid at front (before they provide the service). Because these are substantial payments, the need to pay in advance is a cause of high pressure on the company credit controller who has to make sure that the payment for the service is covered by the receipt collected from the customer.

The second most characteristic pattern of the business's cash flow is its tightness. Most of the company suppliers require payments for services provided by them before they provide the actual service (i.e. transportation of a group, accommodation etc.). This means that the only way to fulfil their requirements without an additional increase in the company working capital is to collect payments from the company customers and agents before the service is provided (a group travels or a student takes a course). And this can only be ensured by active or even aggressive inbound cash flow collection.

The both above described characteristics of the company group's cash flow lay ground for the company need for cash forecasting. Because the cash flow is strongly seasonal it has to be forecasted so that in case of severe cash shortage the company management is aware of the lack of short term liquidity. Because the cash flow is tight, it has to be forecasted and properly managed on an ongoing basis in order to avoid costly increase in the company working capital.

3.2 The specifics of the company group credit control

As previously discussed, the company cash flow is very tight. Customer payments for services provided have to be paid for before providing the service because the company suppliers are mainly individuals who need payment before providing their service. If this condition is not fulfilled, the company has to engage more of its own funds which are not freely available but have to be borrowed from the bank at a high rate. The overall profitability is thus lowered. This is why the goal of the company credit controller is to work out a process that can make sure that this condition is always fulfilled.

To start with, the company overall terms and conditions of payment have to be briefly discussed. Generally, payments for individual students become due two weeks before their arrival whereas payments for group travel become due a month before the group travels. These terms and conditions are stated in the company agency agreement as well as on each and every individual customer invoice. This feature, characteristic for the touristic industry, makes inbound cash flow management even more difficult.

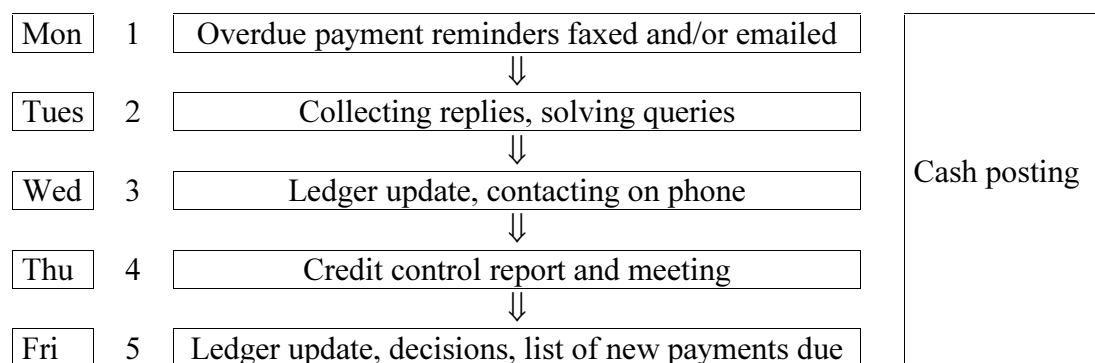
Normally, companies take a percentage of their sales in order to estimate the amount of cash they expect to receive within the next weeks or months based on their past experience. By analysing the past sales and cash inflows, a cash conversion period is normally defined and only the old invoices are chased to make sure that there are no late payers in the business. In the case of the company group discussed this approach cannot be used as very often trips and courses are booked well in advance or, on the other extreme, the booking are made late and shortly before the arrival.

If the service is booked well in advance, the payment for them only becomes due after a few weeks or even months. In this case the company has to include these future bookings in the company deferred income which is a balance sheet not profit and loss item. On the other side, very often the company bookings department raises the sales invoices only a few days before the arrival which allows the company cash collector only a few days to make sure that the payment has been made and received on time (late billing).

These two features of the company billing procedure are an important factor increasing the cash flow unpredictability and making cash forecasting much more difficult. Because the company credit controller and cash collector is unaware of a shortly coming substantial deal, he or she would not include the inflow from this deal to his or her inbound cash forecast. At the same time, the purchase ledger manager is unaware of funds requirement which will shortly become due. Thus it becomes increasingly difficult to collect the cash on one side and to organize the payment for the supplier on the other. The company cash forecast becomes disrupted.

The industry and business specific features of sales and booking procedures, create a need for a customized approach to the process of cash collection, credit control and cash forecasting. On the basis of observation and experience, the company credit controller has established a procedure which should ensure that the company terms and conditions regarding payment are fulfilled at any given time to the optimal degree. The process of controlling credit is shown on the below graph:

Graph: Credit control process at the company group analyzed.



Source: own

Graph description:

Step 1.

Because most of the groups and students arrive on weekends, Mondays are the days when payments for the arrivals in two weeks become first due. The company group credit controller sends payment reminders to direct customers and agents informing that the payment has just become due and an urgent funds transfer is needed as it takes a few days for an international transfer to arrive in a British bank account unless the payer organizes an expensive one-day transfer.

Step 2.

Tuesdays are usually the days when most of the agent replies regarding the reminders sent are collected. When the deal underlying the invoice is free of queries, the company credit controller may expect payment confirmation, however if there is something wrong with the booking or sales, a query may occur. It has to be handled with precision and urgency as it usually is shortly before the date of travel. The credit controller has to solve these queries with sales and bookings departments. Often resending an invoice or reconciliation of account is needed.

Step 3.

On Wednesday mornings all invoices created on Monday and Tuesday are posted to the companies' sales ledgers from access data bases where they originally are raised. The company credit controller has to make sure that there are not any late billed arrivals among them. In case there are invoices that need to be collected urgently, an agent or student has to be contacted immediately on phone in order to clarify the payment question urgently, find out exactly when the payment arrives in the bank account and possibly ask for a payment confirmation. Agents who have not replied to the Monday messages have to be contacted urgently on phone.

Step 4.

On Tuesday mornings it is common to write a report on the next weekend arrivals which have not as yet been paid for. The report is submitted to the company sales managers who also bear responsibility for collecting cash. They need to take decision regarding the arrivals unpaid – either they allow a late payment or they suspend the unpaid travel until a full payment has been received. They inform what their decision is and the credit controller usually contacts agent again in order to convey the message and explain what the situation is. It is very common to ask the agent or individual to send a payment confirmation or credit card details as a payment guarantee.

Step 5.

On Friday the final decisions 'stop or go' are taken for the arrivals not yet paid for. Some accounts can be put on hold due to their non-payments and relevant measures are taken. The decision makers are the company managers who base their choices mainly on the type of relationship between the company group and the agent who has not paid. If the relationship is good and in the past there were not any problems with the payment, the agent may be excused and allowed to pay later. However, if the history of the agent does

not belong to the best, the arrival may be suspended and the students/groups may not be allowed to travel.

On Friday mornings ledgers are updated again by posting new invoices from the relevant data bases to the accounts system. From all sales ledgers the aged debtor analysis is run, ledgers are cleaned up by allocating invoices and credit notes against each other. A new list of accounts chasable is created and the items outstanding are prioritised so that the credit controller can focus on the most important issues first early next week. The process is closed by forecasting cash receipts for the next four weeks.

The company credit controller is aware of the payments due and keeps a prioritised list according to which invoices outstanding are chased. During the whole process, customers' records are updated and described in the credit control. The credit control notes are a valuable source of information about the company business partners' payment behaviour and the better they are kept up to date the more helpful they become. They should include information about contacting the customer/agent, about what has been said, done or requested. Often specific terms and conditions are described in these notes.

Following the above described process brings important benefits to the company financial and sales managers as well as the credit controller himself. The company treasurer knows how much cash should be expected and thus how much can be spent; the short-term liquidity can be ensured. The company suppliers can be informed that they can expect their payment to be organized shortly or they will still have to wait for their funds. On the other side, sales management is informed about the non-payment and can take the relevant approach to the agent or customer concerned. They may change their terms and conditions of payment in order to improve the payment habits and 'educate' a late payer.

3.3 The practice of inbound cash forecasting in the Company Group

3.3.1 The type of cash forecast

As concluded in the theoretical part of this thesis, identifying the right time period forecasted is an issue of high importance. The scopes of cash forecast, characteristic for certain types of forecasts, depend on the users of the information provided by the forecast. In the company group analysed, cash flow problems identified are mainly caused by seasonality and tightness of inbound cash and it is the company treasurer (purchase ledger manager) who needs precise information regarding the amount of cash available within the next four weeks. The company group needs an accurate liquidity forecast.

The objective of liquidity forecasts is to aid short-term cash management by identifying nearby receipts and payments. The forecast will look 7-28 days forward to a high degree of precision. The users of this forecast will be Corporate Treasurer looking to ensure that

there are no idle cash balances, appropriate headroom is available in the right places in the right time for major payments, and unnecessary interest charges are avoided.

Another reason why the period of 28 days has been chosen for the forecasting period is that the major constant company cash outflow – salaries – should always fall into the scope of cash forecast at any given period forecasted. 28 days is the shortest period which can assure the salaries are always included in the forecast. While timing of payments to corporate company creditors can be negotiated, timing of salaries payment is always fixed and always has to occur on the last working day of any given month.

Having identified the need for cash forecasting as well as the user of the information provided and the period of the forecast, the actual forecasting tasks have to be divided between the members of the company group staff members. Most of the information regarding the company cash outflows is concentrated with the company purchase ledger manager, whereas the information regarding cash inflows can be provided by the company credit controller and cash collector.

Outbound cash is much more predictable and controllable. At the end of the day it is up to the company purchase ledger manager to decide whether a payment should be made or not – whether a cheque should be raised or a payment order should be made. On the basis of the aged creditors analysis the company purchase ledger person decides which supplier invoices can be paid and which will still have to wait to be settled. Proper supplier relationship management can be helpful in this case.

Inbound cash is much more unpredictable. There is a substantial number of factors that can make predicting cash receipts very difficult – especially when it comes to a business operating on almost purely international basis with corporate and individual customers and agents. In order to predict cash receipts accurately, a large amount of specific knowledge has to be gathered, as well as the right forecasting approach has to be chosen.

Both sales and purchase ledger managers, after discussing the company flows of cash with the company financial controller and external financial consultant, came up with the cash forecasting template illustrated in the table _____. The template is into in- and outbound cash forecast for the following four weeks. The company sales ledger manager will now be in charge of forecasting the inflow items and the purchase ledger manager – outflows items.

Cash Flow Forecast

Inflow Items:	W/C 24/10/2005	W/C 31/10/2005	W/C 07/11/2005	W/C 14/11/2005
Company A				
Company B				
Company C				
Company D				
Company E				
Company F				
Company G				
Foreign Account TRF				
Group Total:				

Outflow Items:				
Local Organizers				
Other Group Travel Requests				
Host Families				
Trade Creditors				
Freelance Teachers				
Childcare				
Rent				
Business Rates				
Bills				
International Payments				
Refunds				
Regular Payments				
Other				
Payments of Salaries				
PAYE+NIC				
VAT				
Group Total:				

Net Inflow/-Outflow				
Balance b/fwd				
Balance c/fwd				

3.3.2 The method of inbound cash forecasting in the Company Group

Transaction-based approach inbound cash forecasting involves working directly from current and prior period income statement. This technique uses specific knowledge of cash conversion rates from sales and payment to creditors, overheads, investments, interest, tax etc. This is most helpful when trying to understand short-term liquidity and is therefore the most common type of forecast undertaken for treasury purposes.

Transaction-based forecasting is most helpful when trying to understand short term liquidity and is thus most commonly the type of forecast undertaken for Treasury purposes since it captures short-term timing factors. However, because of the level of detailed knowledge required of specific transactions and their timing, it is difficult for such forecast to be accurate as the time horizon extends beyond a few days or weeks. Also, the more widely the technique is used, the more time consuming the forecasting becomes because of the level of complexity.

In the company group analysed, transaction based approach is the only one possible to apply and thus it was chosen as the forecasting technique to be used, despite of its numerous cones. While controlling credit, the company credit controller has to analyse each and every sales deal for which an invoice has been raised. The most important information is the one regarding date of arrival, from which the company credit controller works 2 or 4 weeks back and verifies if the payment is due and if it can be chased.

While chasing a payment, the company credit controller usually gets into necessary interaction with the client and on the basis of their correspondence and/or telephone conversation the company credit controller is usually able to assess when the payment will have chance to arrive in the company bank account. This is where the need for the specific knowledge occurs to be of high importance to predict accurately the incoming cash. The credit controller has to be aware of many factors such as intercultural difference, geographical distance and special terms arranged in order to approach the customer properly and extract from him or her the information and payment confirmation.

Transaction based approach, chosen as the forecasting method for the company group examined, uses the information provided and collected in the credit control process and is conducted on the basis of aged debtor analysis which can be run from the company accounting system (SAGE Line 50) by following the path: Main Menu>Customers>Report>Aged Debtors>Detailed. The below picture shows a sample of such a analysis.

Sage Line 50 Financial Controller - Twin Training International Ltd - [CSTAGED]

Date: 26/08/2005
Time: 18:26:28
Page: 1

Twin Training International Ltd
Aged Debtors Analysis (Detailed)

Date From: 01/01/1990
Date To: 26/08/2005
Customer From: Customer To:
Include future transactions: No
Exclude later payments: No

A/C	AP100	Name	AF Name/Combo	Contact	Market	Notes	Tel	0650413229959		
No.	Type	Date	Ref	Balance	Future	Current	Forecast 1	Forecast 2	Forecast 3	Other
61210	S C	15/04/2004	3121P	17/04/04 Debank Pa	-248.00	0.00	0.00	0.00	0.00	-248.00
65966	S C	27/04/2004	3327F	17/04/04 Kuba B/Lims	-248.00	0.00	0.00	0.00	0.00	-248.00
8314	S C	16/06/2004	12955	L. Kachemwemwa	-248.00	0.00	0.00	0.00	0.00	-248.00
Total:				-744.00	0.00	0.00	0.00	0.00	0.00	-744.00
Transfer:				0.00						0.00
Credit Limit:				0.00						0.00
A/C:	AB100	Name:	Abasi Holdings Privat	Contact:	Mutshu Chumbenko		Tel:	067812 973 9200		
No.	Type	Date	Ref	Balance	Future	Current	Forecast 1	Forecast 2	Forecast 3	Other
08567	S A	16/05/2003	50523	Payment on Account	100.00	0.00	0.00	0.00	0.00	-100.00
92855	S C	03/05/2003	0869F	06/01/03 L&L Dymala	-47.55	0.00	0.00	0.00	0.00	-47.55
94464	S C	18/05/2003	8397F	06/01/03 Yana Chama	-162.50	0.00	0.00	0.00	0.00	-162.50
95188	S A	26/05/2003	2511H	Payment on Account	-36.48	0.00	0.00	0.00	0.00	-36.48
97296	S A	16/06/2003	505991	Payment on Account	-91.00	0.00	0.00	-91.00	0.00	0.00
97373	S A	16/06/2003	505991	Payment on Account	-91.01	0.00	0.00	-91.01	0.00	0.00
Total:				-143,223.34	0.00	0.00	0.00	-233.01	-346.23	-100.00
Transfer:				0.00						0.00
Credit Limit:				0.00						0.00
A/C:	AL1005	Name:	AL Motors Trade Group	Contact:	S&S ext		Tel:	01752 879135		
No.	Type	Date	Ref	Balance	Future	Current	Forecast 1	Forecast 2	Forecast 3	Other
101294	S C	22/08/2003	17593	20142 - S&S Serenche	0.00	-201.00	0.00	0.00	0.00	0.00
Total:				-201.00	0.00	0.00	0.00	0.00	0.00	0.00

This report shows all sales invoices outstanding according to their age (how long ago they have been raised) as well as the debtors – customers or agents – who owes for the service.

The columns of the aged debtor analysis list the following information: system number, type of item (sales invoice, sales credit, payment on account, refund), date of raising the invoice, reference number (usually invoice/credit note number), details of transaction, balance and period of debt (future, current, past 1,2,3,older).

The details of transaction state the name of student/applicant/group as well as the date of their arrival. As already explained, the items become due 2 or 4 weeks in advance of travel, which for forecasting means that the payment will probably arrive 2 or 4 weeks in advance of the arrival date. This is the key to inbound cash forecasting with transaction based approach in the company group examined. The company forecaster has to work out two or four weeks back from the date stated in the details and classify the receipts in the relevant week in the future. Each and every deal listed in the ledger has to be checked and analysed with regards to its type and timing of the service provided.

The spreadsheet used for forecasting is illustrated in the picture nr _____. The first column lists the seven companies in the group, as well as all the customer accounts together with their full names and system codes. There are four columns for four weeks of cash expected in week commencing on dates specified. This cash is rolled over each week – the first week becomes discarded and there is a new column added to the right.

Cash receipts Forecast @ 27.06.2005				
A/C	w/c27.06.2005	w/c4.07.2005	w/c11.07.2005	W/c18.07.2005
<u>Company A</u>				
Account 1				
Account 1				
Account...				
Account n				
<hr/> <hr/>				
<u>Company B</u>				
Account 1				
Account 1				
Account...				
Account n				
<hr/> <hr/>				
<u>Company C</u>				
Account 1				
Account 1				
Account...				
Account n				
<hr/> <hr/>				
<u>Company D</u>				
Account 1				
Account 1				
Account...				
Account n				
<hr/> <hr/>				
Group Total				

At the end of the forecast is it worthwhile to produce a summary listing the seven companies in the group together with the expected cash receipts during the following four weeks. This summary goes directly to the full cash forecast for the company group and provides the key figures for the part regarding the cash receipts in the company group. The main idea is show in the below table nr ____.

	Cash receipts Forecast @ 27.06.2005			
	w/c27.06.2005	w/c4.07.2005	w/c11.07.2005	w/c18.07.2005
Company A				
Company B				
Company C				
Company D				
Company E				
Company F				
Company G				
Group TOTAL				

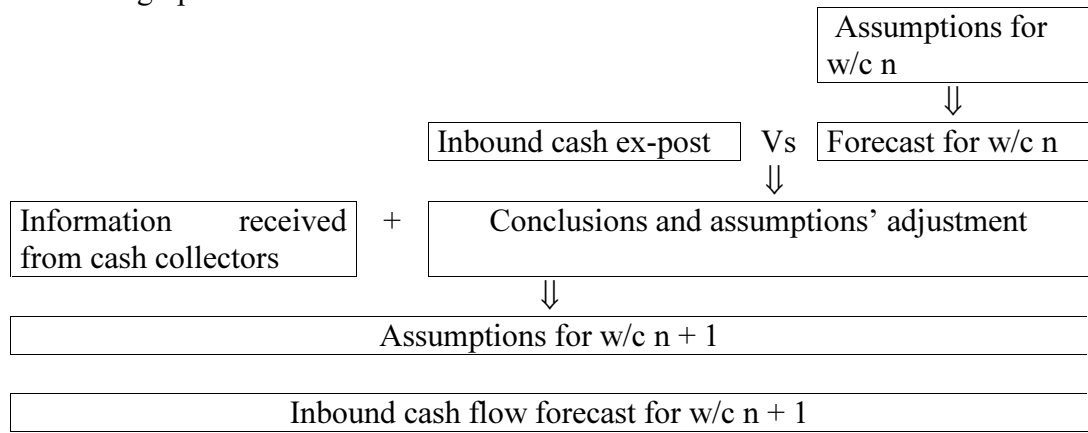
Conclusions derived from the analyses of deviations were taken into consideration while producing the next four week forecast in order to improve its accuracy. The aim of doing it was to find patterns in behaviour of certain types of agents and customers, significant from forecasting point of view. The below table nr ____ show the four week's inbound cash template used for all companies in the company group.

3.3.3 Gathering the specific knowledge - 10 weeks' forecast examination

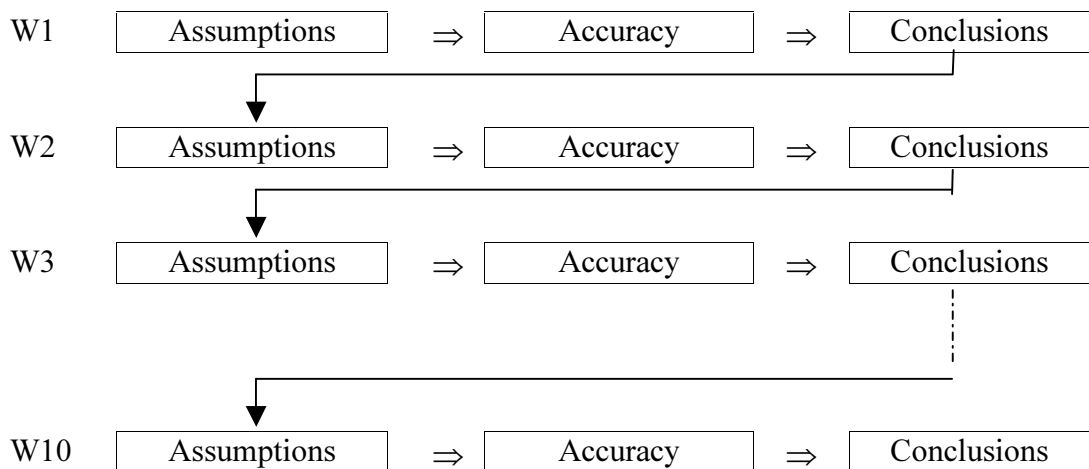
To collect this specific knowledge, the company credit controller (and now also inbound cash forecaster) examined the company inbound cash for 10 weeks, comparing the forecasted cash to the cash actually received in the company group bank accounts. The examination was conducted during summer months in order to avoid costly consequences in case inbound cash was not foreseen accurately (the cash flow was not very thigh).

For ten weeks, every Friday Step 6 of credit control process was followed by a review of the information received from agents and customers regarding their payment plans. On the basis of what was said and what was done (aggressive credit control process) the company credit controller was estimating when each and every payment might be received in the company bank account. Also, the actual last week's cash receipts were reported and summarised. The forecasted figures were compared with the actual figures and the deviations were analysed.

The process of building specific knowledge used for forecasting purposes is be illustrated on the below graph:



Assumptions made while forecasting for next week are recorded. After the week ends the forecast is reviewed and the actual cash received is compared with the forecast. This comparison allows to conclude what was forecasted properly and what was forecasted in a wrong way. The initial assumptions are adjusted and on the basis of this adjustment a new forecast is made. The process of assumption's adjustment has been illustrated on the below graph.



In the course of this examination, the company credit controller systemized agents and customers in a few groups according to the cultural background and geographical position. Interestingly, there were common patterns observed which have significant meaning when it comes to payment behaviour. Special terms and conditions of payment have been reported and systemized. Agents were divided into good, indifferent and bad payers – these who tend to stick to the company overall terms and conditions of payment and these who need more chasing and ‘educating’.

It has been observed that together with the information refinement and systematization as well as experience, the company inbound cash flow became increasingly accurate. New

factors disturbing the forecasting have been identified and taken into consideration. The results of the examination revealed that when at the beginning the inbound cash was predicted with just more than 50% accuracy whereas upon completion of the examination the accuracy increased to almost 80% which already is a satisfactory result for the company Treasurer.

3.4 Inbound cash forecasting – conclusions

It has been observed that late billing decreases the accuracy of forecasting. As a matter of fact, the company forecast for the weeks 3 and 4 is far less accurate than for weeks 1 and 2. More sales may increase cash inflows but that it could also increase accounts receivables and require more inventory purchases. Cash flow plan should be used to see if a major increase in sales can be sustained. In the future it would be desirable to base forecasting cash not only on the basis of invoices existing in the company ledgers but also on the basis of what is planned to be billed. Information from the bookings department will be valuable in this case.

Collecting overdue accounts should be aggressive so that the revenue is not lost. The process for pursuing collections should be clear and persistent. The process described above suits good the company specifics as no increase in the company bad debt provisions have been reported over the period of implementing this process. The company credit controller must act in a systemized way which has to enable them collecting the information needed to forecast the inbound cash accurately.

A series of letters to overdue customers may need to be sent, informing them that their account is past due and what steps you will take if it is not paid. It is also a good idea to work back from the forecast – create a list of payments that need to be secured and make this list become a reality. Forecast would not be perfect, unless all factors have been considered and accounted for.

The better and smoother the invoicing process the better and more accurate the forecasting process. Invoices should be raised immediately upon booking or as soon as the visa or work permit has been granted. Since the credit controller and cash forecaster base their work on the company sales ledger, the better the information in the ledger the more accurate forecast can be prepared. It is extremely important to keep the whole ledger in order and cleanliness – credit raised to cancel invoices should be allocated against the relevant invoice and the ledger should be constantly updated. Any failures in the computer and information system behind the billing process has to be sorted as soon as possible in order not to disorganize the sales ledgers.

The amount and time of credit given to customers should be reduced. This should cause more customers to pay cash for their purchases and reduce the bad debt expenses for the company. However, tight credit policies could seriously limit your customers' buying ability and sales may decrease. It is the key factor to find a balance between sales and

limiting your unpaid receivables. Customers are the company most precious assets at the end of the day and good relationship with them will enable to extract easier the information regarding the payments.

In case customers pay a certain percentage of the total invoice up front or at multiple stages of the project, it is extremely important to establish what terms and conditions were given to particular agents with regard to the payment. It is very important to do not be too strict with the payment conditions at the beginning of the deal so that the business is not lost due to stating to harsh payment conditions from the very beginning. Seeking for compromising and good communication cannot be discarded.

Optimising cash flow and avoiding bad debts are two key objectives of any successful business. Setting up a good credit control system is the starting point for both. The following tips help to decide what approach is appropriate and how different customers should be handled: how to decide on credit terms for customers, prevent late payment, and deal with customers who cannot — or will not — pay.

To start with, each new customer and agent should complete a credit application (or trading application) form. This should include:

- Full name of the business, and whether the business trades under a different name.
- Registration number, if it is a limited company.
- How much credit is being asked for.
- Who the contact is for payment queries — including address details, telephone and fax numbers and email address.
- Where to send invoices, as this is often different from the delivery address. The statement address can be different again.
- Which bank the business uses — name, address, sort code and account number.
- Details of at least two trade references, which should be regular suppliers.
- A request for consent to obtain a bank reference and a request for consent to obtain credit references.
- Details of who owns — and who runs — the business.

Payment terms should be explained and agreed at the order stage, and they should be printed on credit application form (and on other relevant documents, such as agency agreement and invoices). The terms should include:

- The credit period offered. For example, whether payment is due 30 days from the date of invoice.
- Details of any discounts or rebates offered. For example, for prompt payment or bulk purchases.
- Whether interest is charged on overdue accounts and, if so, how much. All businesses have a legal right to claim interest from late-paying customers in both large and small companies. New customer's or agent's creditworthiness should be checked on the basis of the information given.

It is a good idea to get an online credit rating, by paying a credit reference agency for an instant company search. It can be instantly available, and will cost from £10 upwards. This

should provide the company group credit controller with valuable information about the customer, including:

- The last three years' reported financial information, taken from the accounts filed at Companies House. Some of this may be out of date, but it can often give a good idea of the company's financial strength.
- Details of County Court judgments
- Suggested credit limits.

Even a highly detailed report — giving extra information such as comments on the company's past payment record and comparisons against companies of a similar size — will not cost more than about £35 to £45.

Credit references from trade suppliers can be taken up. The referee should be a genuine core supplier to the business. Realistically, trade references may have limited value, as they are usually slow, often guarded and sometimes biased. The questions to ask people giving references are:

- How long they have traded with the potential customer.
- What credit terms (limit and period) they offer the customer.
- Whether the new customer pays up within the terms offered.
- What the customer's average monthly spend is.
- Whether they are in any way associated with the customer's business, other than as arm's-length trade suppliers.
- If there is any other information they would consider relevant.

Quick replies should be encouraged by giving a phone number, sending an SAE, or asking (by phone) for the form to be faxed back.

The company credit controller can write to the Registry of County Court Judgments at 173-175 Cleveland Street, London, W1T 6QR (020 7380 0133) for details of all County Court judgments (CCJs) registered in the last six years. The fee is currently £4.50 for each name at a specified address, payable in advance.

- A large number of judgments is a danger signal. It may indicate that the company is in financial difficulties, or that it has a habit of disputing or not paying invoices. The cause of some of these disputes could be administrative error, but this is unusual.
- This information is available on individuals, as well as companies. Though the cost will be slightly higher, it is easier and much quicker to get details of CCJs as part of a company search.

Bank reference can be applied for, although these are notoriously vague and may take a long time to arrive. The response will use standard phrases. They need to be interpreted to decide whether or not they amount to a negative reference. A reference may sometimes be too ambiguous to be useful. The fee is typically £9 to £15.

When setting a maximum credit limit for each customer, the following factors should be considered:

- What credit does the customer want?
- Would the customer still place the order if they are provided no credit at all? The customer may prefer to receive a discount for 'payment with order'.

- How much credit can be afforded? Long credit terms for large orders may be out of the question.
- How much of a hold over the customer do you have? If your customer can easily switch to another supplier, the risk is greater.
- How much could be risked losing?

Credit limits should be reviewed regularly. Business can be lost if customers are offered more credit elsewhere.

The risks of giving credit should be minimized. New customers should be given a modest credit limit to begin with. The limit can be increased when the strength of relationship justifies it. Taking out credit insurance for large transactions can be considered. In the future cash flow and credit control advantages of factoring should also be considered.

It should be established how different customers pay their invoices as many businesses will not pay unless there is an order number. Some businesses need the invoice passed to the accounts department by a certain date, or it misses the monthly cheque run. For this purpose the knowledge of sales and cash collection forces can be used.

Always the right order details should be given. If they are incorrect, the customer may have every right to delay or even refuse payment. Customers should be asked to confirm the order in writing, including an order number. The order should specify the work to be undertaken (e.g. by referring to an agreement). In the company group examined the role is taken by the booking form sent by agents and customers on the basis of which invoices are raised.

The customer should be satisfied and any problems should be sorted out immediately. At the end of the day Credit controllers and cash collectors are the end users of the whole booking, sales and invoicing systems. Cash forecasters base their assumptions on the information collected by the credit controllers and thus any disruption in the underlying system will be reflected by inaccurate cash forecasting.

A clear, easy-to-understand invoice will encourage customers to pay more quickly which again can improve the company cash flow. As well as the amount owing, the following important details should be included:

- A detailed description of the service.
- A reference to the order number.
- The agreed payment date (in line with the terms of trade).

The invoice should also provide company details, including address, VAT number (if applicable) and full bank details. Very often the company agents and customers complain they have no bank account details and thus they cannot pay. The company booking department should make sure this question is always solved.

Invoices should be sent out as soon as possible. Sending invoices out late sends the wrong message and makes the company cash collectors unaware of deals coming and thus – also confusing the short term cash forecasts. If the invoice is sent to the right person the payment process can be substantially increased. This person should be identified in advance and also should be contacted in case there is a delay in payment. Since in the company group bookings department is separated from credit control, it is very important

for effective payment chasing that the bookings department provides information on the right contact person in the customer's (agent's) organization. This condition is mainly fulfilled by the company Customer Relationship DB however it is always worthwhile to double check.

Statements of account should be sent out as early as possible in the month, on a regular basis. Many businesses will not pay an invoice until they receive a statement. Details of all current transactions, and the payment terms should be provided. In the company group analysed, statements of account are usually sent to the relevant person on Friday evening. Thus most of contact persons find their statements on their desks on Monday mornings and have the whole week to organize their payments. The problem here is that the business is operating internationally and the statements are generated from the financial system in English only. Often agents and customers complain about it or simply do not react as they do not understand the request.

Phoning is one of the fastest ways to persuade late payers to pay up. Chasing payment should be started as soon as the account becomes due. It is important to always concentrate on the largest debts first, customers who may be in financial trouble and the older accounts. Except in special situations, it is unlikely that debts over a year old will be paid.

Due to the fact that the company credit controller has only limited time and usually makes overseas phone calls, their effectiveness should be maximized. Customer details, invoice numbers, dates and amounts should be readily and instantly available. This condition is fulfilled by the financial system (SAGE) and the company databases where all information regarding agents, students and deals made are kept.

A record, with dates, of all calls made should be kept and updated. For this purpose that company credit controller uses the 'credit control notes' in the 'Customers' module of SAGE. These notes enable persistent chasing the debtors and also give hints regarding how good payer they were in the past. If in the credit control notes there are long stories written by the former credit controllers, the cash collector may suspect that a debt will need more attention and chasing. These notes are extremely important as a source of valuable information in case of going legal with some overdue debts. They provide information of what was declared, said, done in the past and lead to relevant paper or electronic correspondence between the company group and customer/agent. It is in the interest of the company credit controller to keep updating these notes constantly so that at any given time he or she can explain what is going on with a particular item outstanding.

The company credit controller should always be sceptical of excuses, as they can often be simple delaying tactics. These customers should be put high on the chasing list. A professional but friendly approach should be adopted when dealing with the common excuses for non-payment.

- a) 'I haven't received your invoice. Can you send a copy?'
 - Check that the invoice address is correct.
 - Immediately fax (or email) another copy of the invoice to the person you spoke to. Phone to confirm it has been received, and check when you can expect payment.
- b) 'Your invoice is on the next cheque run.'
 - Check that the details on the customer's purchase ledger are correct.
 - Ask when the cheque run date is.
 - Call a few days beforehand to make sure your invoice is going to be paid.
- c) 'I'll deal with it shortly.'
 - Ask when.
- d) 'Your invoice hasn't been passed to accounts yet.'
 - Ask the buyer you supplied to authorise the payment. Then phone the accounts office to confirm that the buyer has done so.
- e) 'The cheque's in the post.'
 - Ask for the postal date and cheque number.
- f) 'We've got a cash flow problem' or 'We can't pay until we've been paid ourselves'.
 - This is an extremely serious warning sign. It may be necessary to halt all credit and send a letter of claim.

In case of non-payment a customer can be put on stop. A stop list is a list of customers you do not want to give more credit to. This list should be updated regularly and circulated to appropriate employees and especially their managers, to prevent further credit being given. It is very important for the business that the company credit controller agrees action to be taken with the relevant sales managers or even the company managing directors. It is important to realize that they may happen to enter in an agreement with the customer which will allow them deferred payment, which makes putting on stop irrelevant.

Until customers have paid their accounts up to date no more bookings should be accepted. Sometimes the old debt can only be recovered if a new booking is taken and used as a leverage against the old one. The agent or customer faces a condition: service will be provided but the old debt has to be paid for. This solution is very often effective especially if the relationship is relatively good and the both companies plan to do more business in the future with each other.

In all cases the agents and customers should be informed that late payers are 'on stop'. This encourages them to pay up, especially when they realise they are going to want to place further orders. This again reveals that the credit controller should be an excellent communicator and should take care that the internal and external information flow is smooth. This information is curtail for inbound cash flow forecasting and acquiring it is the only way to ensure accuracy of the forecast.

Sometimes going legal is the only way of bad debt recovery. A 'letter of claim' (or 'seven-day letter') is the first stage of the legal process. Nobody can be sued until such a letter has been sent to the person. The letter tells the customer/ agent that if overdue invoices are not settled by a certain date (usually in seven days' time), he or she will be sued without further notice. Letters of claim can be sent any time after an invoice becomes due. Some businesses have a policy of not paying until they receive such a letter. Solicitor is not needed to send a letter of claim.

Throughout the credit control process, a positive personal relationship with customers should be maintained. It is more likely to get the response wanted if a friendly approach is adopted. If there is no alternative but to take legal action, this approach should be maintained by discussing the situation with the customer, explain that the customer's business is valued but taking legal action has been advised. It should be made clear that this solution will only be preferred if there is no other alternative.

Speaking to the managing director or finance director of the business is very often helpful in finding the solution and avoiding legal action. Problems can often be sorted out by a director in the company talking to his or her opposite number. This conversation may give an indication of whether the company has the money to pay. If the financial strength of the debtor is sufficient, they may have payment plans established and repay their debt in instalments.

The overall conclusion is that it is the persistence and communication as well as awareness that lead to proper credit control and accurate inbound cash forecasting. Accounts receivable have to be controller and reviewed each day, every day. The process of credit control has to be carried out on an everyday basis, queries have to be solved systematically and discussed with the company sales forces and management. A firm and customized credit policy has to be established and sustained.

4 Summary

Cash is the oxygen that enables a business to survive and prosper, and is the primary indicator of business health. While a business can survive for a short time without sales or profits, without cash it will die. Cash includes: coins and notes, current accounts and short-term deposits, bank overdrafts and short-term loans, foreign currency and deposits that can be quickly converted to national currency. Cash does not include: long-term deposits, long-term borrowing, money owed by customers, stock.

Cash flows stand for the difference between cash inflows and outflows (inbound and outbound cash, cash payments and cash receipts). Cash inflows characteristic for and business are: payment for goods or services from customers, receipts of a bank loans, interest on savings and investments, shareholder investments. Cash outflows: purchase of stock, raw materials or tools, wages, rents and daily operating expenses, purchase of fixed assets, loan repayments, dividend payments, income tax, corporation tax, VAT and other taxes.

According to accrual basis, a transaction enters the reporting period when it happens and not when a relevant cash flow related to this transaction occurs. Cash receipts often lag cash payments and, whilst profits may be reported, the business may experience a short-term cash shortfall. For this reason it is essential to forecast cash flows as well as project likely profits.

The balance sheet, profit and loss statement and cash flow statement are closely related to each other. They form a closed system in which all transactions occurring in reporting period are registered, so that users of the information produced can understand the process of creating value added (profit and loss statement) as well as how the company liquidity (cash flow statement) was affected by the company decisions and operations.

A cash forecast (budget) is a presentation of cash results based upon assumptions about conditions and actions expected to exist or occur during the forecast period. It identifies the sources and amounts of cash coming into the business and the destinations and amounts of cash going out over a given period. There are normally two columns listing forecast and actual amounts respectively. The forecast is usually done for a year or quarter in advance and divided into weeks or months. It is best to pick periods during which most of the fixed costs - such as salaries - go out.

In order to make well informed cash, liquidity and foreign exchange management decisions, the Corporate Controller or Treasurer needs cash flow projections to be as accurate as possible. In fact, one of the primary objectives of operational forecasts are to serve as the basis for deriving realistic cash flows. Usually company-specific conditions set the parameters for cash forecasting, but overall objectives and difficulties remain consistent across all sectors.

Cash flow from receivables is the critical component in working capital management, and the ability to forecast cash inflow is critical. Credit and collections departments have increased responsibilities to increase their efficiency, eliminate cash flow bottlenecks and

to report the ever-changing patterns of payments from customers. This information helps finance organizations to plan for cash management efficiently across all operations.

There are three different types of cash flow forecasts because different users have different needs. Cash forecasts in general take three forms: liquidity forecasts, operational forecasts and strategic forecasts

Transaction-based approach forecasting involves working directly from current and prior period income statement. This technique uses specific knowledge of cash conversion rates from sales and payment to creditors, overheads, investments, interest, tax etc. This is most helpful when trying to understand short-term liquidity and is therefore the most common type of forecast undertaken for Treasury purposes

The funds flow approach to forecasting starts from operating profit and adjusts for known non-cash items and expected forecast movements in balance sheet items. It is the second method that can be used to calculate the Cash Flows from Operating Activities and it is referred to as the Indirect Method. Using the Indirect Method, cash flows from Operating Activities are reported or forecasted by adjusting net income for revenues, expenses, gains, and losses that appear on the income statement but do not have an effect on cash.

The over-riding determinant in companies' success in forecasting and managing cash is the degree of organizational focus and alignment behind cash as a key performance indicator. Giving the limitations in the ways that cash can be forecasted, it is perhaps not surprising that good financial models or processes alone are not always enough to build confidence in the quality of forecast outputs.

The human elements of cash forecasting and collections will probably never be eliminated. Good customer relationship management cannot be ignored, and will always be an important part of collections and accurate forecasting, though it seems likely that technology will creep more and more into the picture.

In the company group examined in the practical part of the thesis, the organizational structure is reflected in the business's structure of bank accounts. Because the seven companies are separate entities, they need to have their own current bank accounts in order to pay bills to their creditors and collect money from debtors. However, they can freely give loans to each other by simply moving cash from one bank account to another. Since the owners of the mother company are at the same time the owners of the daughter companies, no loan deals have to be involved.

For managing cash properly, it is very important to be constantly aware of the current cash balance. In the company group analyzed, all current bank accounts are reconciled on an ongoing basis. The company accountants start every working day with analysis of the cash received and paid out of the bank accounts in order to establish not only the total amount of funds available in the bank account but also be aware of the total amount of unrepresented suppliers cheques (cheques that have not as yet been banked), i.e. cash which will definitely leave the account in the nearest future

The seasonal pattern of the company group's inbound cash flow has important implications for cash forecasting and sets great challenges for ensuring the company short term liquidity. In summer, the idle cash gathered in the company current bank accounts has to be invested in more profitable financial instruments whereas during winter these instruments have to be liquidated so that they can be used to help the shortage of cash. In practice this means that inbound cash forecasting has to be equally accurate both in summer and winter season, however there is more pressure on the forecasters in the winter as shortages of cash may have more serious implications for the business than the cash excess.

The company group's cash flow is very tight. Customer payments for services provided have to be paid for before providing the service because the company suppliers are mainly individuals who need payment before providing their service. If this condition is not fulfilled, the company has to engage more of its own funds which are not freely available but have to be borrowed from the bank at a high rate. The overall profitability is thus lowered. This is why the goal of the company credit controller is to work out a process that can make sure that this condition is always fulfilled.

In the company group analysed, cash flow problems identified are mainly caused by seasonality and tightness of inbound cash and it is the company treasurer (purchase ledger manager) who needs precise information regarding the amount of cash available within the next four weeks. The company group needs an accurate liquidity forecast.

In the company group analysed, transaction based approach is the only one possible to apply and thus it was chosen as the forecasting technique to be used, despite of its numerous cones. While controlling credit, the company credit controller has to analyse each and every sales deal for which an invoice has been raised. The most important information is the one regarding date of arrival, from which the company credit controller works 2 or 4 weeks back and verifies if the payment is due and if it can be chased

To collect the specific knowledge needed for accurate forecasting, the company inbound cash forecaster examined the company inbound cash for 10 weeks, comparing the forecasted cash to the cash actually received in the company group bank accounts. The examination was conducted during summer months in order to avoid costly consequences in case inbound cash was not foreseen accurately (the cash flow was not very tight). The accuracy of the inbound cash forecasting has been increased substantially as a firm credit control system has been established and implemented.

Literature

- Alexander, Davd, Archer, Steven, 2001. International Accounting Standards Guide, San Diego: Harcourt Professional Publishing
- Bailey, Thomas, Wild, Henry, 2002. Międzynarodowe Standardy Rachunkowości w praktyce. Warszawa: Deloitte and Touche
- Bednarski, Ludwik, 2004. Analiza finansowa w przedsiębiorstwie. Warsaw: PWE
- Bednarski, Ludwik, Gierusz, Jan, 2001. Rachunkowość Międzynarodowa, praca zbiorowa. Warszawa: Polskie Wydawnictwo Ekonomiczne
- Bień, Władysław, 1992. Zarządzanie finansami przedsiębiorstwa. Warszawa: SKwP,
- Birgham, Edward, 2003. Podstawy zarządzania finansami. Warsaw: Polskie Wydawnictwo Ekonomiczne,
- Blake Joh, Lunt, Henry, 2001. Accounting Standards – 7th Edition. , Padstow: Prentice Hall,
- Delaney, Peter, Nach Robert, Epstein Benjamin & Weiss, Budak, 2002. GAAP 2002 Interpretation and Application of Generally Accepted Accounting Principles 2002. New York: John Willey and Sons
- Edminds, McNaire & Olds, Milam, 2002. Fundamental Financial Accounting Concepts. New York: McGraw-Hill
- Eljasiak, Ewa, Parteka, Wiesław, 1996. Przepływy gotówkowe – ustalenie, analiza, planowanie, zarządzanie. Gdańsk: ODDK
- Glautire, Marc, Underdown Daniel, 2000. Accounting Theory and Practice – 7th Edition, Fort Worth: The Dryden Press,
- Glynn, Jane, Perrin, John. & Murphy Mercedes., Rachunkowość dla menedżerów, Wydawnictwo Naukowe PWN, Warszawa 2003.
- Gmytrasiewicz, Marta, Karmańska Anna, 2002. Vademecum Rachunkowości - Rachunkowość finansowa. Warszawa: DIFIN
- Gos, Władysław, 2003. Rachunek przepływów pieniężnych w świetle krajowego standardu rachunkowości. Poznan: PWE
- Gos, Władysław, 2002. Przepływy pieniężne w systemie rachunkowości. Szczecin: Uniwersytet Szczeciński

- Gottlieb, Mario, Lewczyński, Witold, 1993. Cash flows – sprawozdanie z przepływów gotówki w praktyce USA i w warunkach Polskich, Sopot: Instytut Przedsiębiorczości
- Helin, Andrzej, 2000. Sprawozdania Finansowe według MSR. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce
- Holmes, Sugden & Gee, 2000. Interpreting Company Reports and Accounts – 8th Edition. Edinburgh Gate: Prentice Hall
- Hornngren, Sundem & Elliott, 2002, Introduction to Financial Accounting. Upper Saddle River, New Jersey: Prentice Hall
- Jaruga, Anna, 2002. Międzynarodowe regulacje rachunkowości. Wpływ na rozwiązania krajowe. Warszawa: C.H. Beck
- Keown, Petty, 2002. Principles of Financial Management. New York : Prentice Hall,
- Kiziukiewicz, Tadeusz, 1995. Sprawozdanie z przepływu środków pieniężnych w zarządzaniu firmą. Wrocław: Ekspert
- Kiziukiewicz, Tadeusz, 2003. Zarządcze aspekty rachunkowości. Warsaw: Polskie Wydawnictwo Ekonomiczne
- Kołączyk, Zbigniew, 2002. Międzynarodowe Standardy Rachunkowości w praktyce polskich przedsiębiorstw. Poznań: FORUM
- Kostur, Anna, 2001. Koncepcja i analiza modelu sprawozdawczego rachunkowości. Katowice: Wydawnictwo Uczelniane Akademii Ekonomicznej im. Karola Adamieckiego w Katowicach
- Messner, Zbigniew, 1996. Podstawy Rachunkowości. Katowice: Stowarzyszenie Księgowych w Polsce – Zarząd Okręgowy w Katowicach
- Nowak, Edmund, 1996. Leksykon rachunkowości. Warszawa: Wydawnictwo Naukowe PWN,
- Olchowicz, Jan, Tłaczała, Alicja, 2002. Vademecum Rachunkowości – Sprawozdawczość finansowa. Warszawa: DIFIN
- Peterson, Robert, 2002. Kompendium terminów z zakresu rachunkowości i finansów po polsku i angielsku. Warszawa: PricewaterhouseCoopers i Fundacja Rozwoju Rachunkowości w Polsce
- Stolowy, Henry, Lebas Mark, 2002. Corporate Financial Reporting – a global perspective. Derby: Thomson

- Śnieżek, Ewa, 1996. Jak czytać cash flow?. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce
- Śnieżek, Ewa, 1994. Rachunek przepływów pieniężnych w teorii i praktyce rachunkowości. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce
- Śnieżek, Ewa, 2002. Przewodnik po cash flow – część I. Metodologia i techniki sporządzania według znowelizowanej ustawy o rachunkowości. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce
- Świdarska, Georginia, 1995. Rachunkowość w zarządzaniu firmą,. Warszawa: Framax
- Turyń, Jerzy, 1997. Rachunkowość finansowa. Warszawa: C.H. Beck
- Waśniewski Tadeusz, Skoczylas Wojciech, 1995. Cash flow w przedsiębiorstwie, Warsaw: Fundacja Rozwoju Rachunkowości w Polsce
- Waśniewski, Tadeusz, Skoczylas, Wojciech, 1995. Cash flow w przedsiębiorstwie. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce
- Waśniwski, Tomasz., Gos, Władysław, 2002. Rachunkowość przedsiębiorstw – zadania i rozwiązania dla zaawansowanych według polskiego prawa bilansowego oraz standardów międzynarodowych. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce
- Weygrant, Kieso & Kimmel, 2001. Accounting Principles – 5th Edition. New York: John Willey and Sons

Attached

List of References

- ¹ Nowak, Edward, 1996. Leksykon rachunkowości. Warszawa: Wydawnictwo Naukowe PWN, p. 67-80
- ² Waśniowski, Tadeusz, Skoczyła Wojciech, 1995. Cash flow w przedsiębiorstwie, Warszawa: Fundacja Rozwoju Rachunkowości w Polsce, p. 69
- ³ Kiziukiewicz, Tadeusz, 2003. Zarządcze aspekty rachunkowości. Warszawa: Polskie Wydawnictwo Ekonomiczne, p. 97
- ⁴ Keown, Petty, 2002. Principles of Financial Management. New York: Prentice Hall, p. 637
- ⁵ Horngren, Sundem, Elliott, 2002. Introduction to Financial Accounting. Upper Saddle River, New Jersey: Prentice Hall, p. 351.
- ⁶ Bednarski, Ludwik, 2004. Analiza finansowa w przedsiębiorstwie. Warsaw: PWE, p.159.
- ⁷ Gos, Władysław, 2003. Rachunek przepływów pieniężnych w świetle krajowego standardu rachunkowości. Poznań: PWE, p. 42
- ⁸ Stolowy, Henry, Lebas Mark, 2002. Corporate Financial Reporting – a global perspective. Derby: Thomson, p. 124
- ⁹ Śnieżek, Ewa, 1994. Rachunek przepływów pieniężnych w teorii i praktyce rachunkowości. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce, p. 45-55
- ¹⁰ Nowak, Edmund, 1996. Leksykon rachunkowości. Warszawa: Wydawnictwo Naukowe PWN, p. 78
- ¹¹ Olchowicz, Jan, Tłaczała, Alicja, 2002. Vademecum Rachunkowości – Sprawozdawczość finansowa. Warszawa: DIFIN, p. 120
- ¹² Turyna, Jerzy, 1997. Rachunkowość finansowa. Warszawa: C.H. Beck, p.34
- ¹³ Waśniowski, Tomasz., Gos, Władysław, 2002. Rachunkowość przedsiębiorstw – zadania i rozwiązania dla zaawansowanych według polskiego prawa bilansowego oraz standardów międzynarodowych. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce, p. 85
- ¹⁴ Keown, Petty, 2002. Principles of Financial Management. New York: Prentice Hall, p. 640

-
- ¹⁵ Peterson, Robert, 2002. Kompendium terminów z zakresu rachunkowości i finansów po polsku i angielsku. Warszawa: PricewaterhouseCoopers i Fundacja Rozwoju Rachunkowości w Polsce, p. 62
- ¹⁶ Śnieżek, Ewa, 1996. Jak czytać cash flow?. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce, p. 77
- ¹⁷ Edminds, McNaire & Olds, Milam, 2002. Fundamental Financial Accounting Concepts. New York: McGraw-Hill, p. 79
- ¹⁸ Messner, Zbigniew, 1996. Podstawy Rachunkowości. Katowice: Stowarzyszenie Księgowych w Polsce – Zarząd Okręgowy w Katowicach, p. 91
- ¹⁹ Waśniewski, Tadeusz, Skoczylas, Wojciech, 1995. Cash flow w przedsiębiorstwie. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce, p. 45-55
- ²⁰ Kostur, Anna, 2001. Koncepcja i analiza modelu sprawozdawczego rachunkowości. Katowice: Wydawnictwo Uczelniane Akademii Ekonomicznej im. Karola Adamickiego w Katowicach, p.127
- ²¹ Świdarska, Georginia, 1995. Rachunkowość w zarządzaniu firmą. Warszawa: Framax, p. 89
- ²² Glynn, Jane, Perrin, John. & Murphy Mercedes., Rachunkowość dla menedżerów, Wydawnictwo Naukowe PWN, Warszawa 2003, p. 67
- ²³ Gottlieb, Mario, Lewczyński, Witold, 1993. Cash flows – sprawozdanie z przepływów gotówki w praktyce USA i w warunkach Polskich, Sopot: Instytut Przedsiębiorczości, p. 85
- ²⁴ Kiziukiewicz, Tadeusz, 2003. Zarządcze aspekty rachunkowości. Warsaw: Polskie Wydawnictwo Ekonomiczne, p. 44