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Conceptual Model for Cash Flow Statement: History, Analysis and Further Development

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Declaration:
Hereby I declare that this doctoral thesis, my original investigation and achievement, submitted for the doctoral degree at Tallinn University of Technology has not been submitted for doctoral or equivalent academic degree.

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Introduction

According to the International Accounting Standards Board (IASB), the main objective of financial reporting is the presentation of financial information about the reporting entity that is useful for the users of financial statements in assessing the prospects of future cash inflows to the company and in assessing management's stewardship of the resources. The Conceptual Framework for Financial Reporting (CF) emphasizes that investors need information about both financial performance (income and expenses) and financial position (assets, liabilities and equity) (IASB, 2018).

Financial statements are maps of the economic territory and they present financial characteristics of a business enterprise. As only a limited amount of information can be presented on a single map, numerous maps are required (Heath, 1978). Similarly, a single financial statement designed to present many different types of changes in the financial position of an enterprise would not be able to present them clearly. The concept of information usefulness has been dominant in the field and has resulted in a new definition of decision usefulness for capital providers, which means that information provided should help in assessing an entity's ability to generate cash inflows. Information should enable financial statement users to assess an entity's liquidity and solvency, compare performance and make predictions (Gordon et al., 2017). Yap (1997) has investigated financial sector professionals in Australia, and concluded that by far the most used source of information for decision-making is financial statements, while industry reports, economic and media reports, visits, etc. are only complimentary.

Already from 2010, both the IASB and the Financial Accounting Standards Board (FASB) state that the objective of financial statements is to provide financial information about a reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to that entity. For investors it could be decisions on the expected return on investment, such as dividends, interests and principal payments or market price increase. For creditors, decisions would be on interests and principal payments. As it all has to be paid with cash, not earnings, users of the statements are especially interested in the prospects of future cash inflows to the entity. Financial statements should provide information on entity's liquidity and solvency (IASB, 2018) and here the cash flow statement is of extreme importance. Information on past cash flows provided in the cash flow statement, if used together with information from other financial statements, should help the users to "asses the ability of the entity to generate cash and cash equivalents and the needs of the entity to utilize those cash flows" (IASB, 2016, 7), while the secondary purpose is to the provide information "about the entity's investing and financing activities during the period" (FASB 2014b, p. 84)

Rayman (1969) has called for a new cash flow statement and noted that the failure of the conventional accounting system lies in the "failure to distinguish between the results of actual events and the effects of accounting procedures" (Rayman, 1969, p. 423). As Paton (1963) well put, "cash or equivalent is a key business asset in that it is the only resource that can be readily exchanged for any desired commodity or service, or used to liquidate obligations and affect distributions to investors, hence this resource should be a focus of concern and study" (Paton, 1963, p. 251). Cash flow information serves many needs of financial market participants. For example, the cash flow statement is essential for equity investors, as ASC 230 indicates that the cash flow statement helps investors assess future cash flows, evaluate the availability of cash for dividends and evaluate the enterprise's ability to finance growth from internal sources. While the IASB adds that cash flow information enhances the comparability of operating performance by different entities, "because it

eliminates the effects of using different accounting treatments for the same transaction and events" (IASB, 2016, 4).

Academic research shows that the cash flow statement is useful in predicting company's future cash flows, and provides extended information over the balance sheet and income statement (Livnat & Zarowin, 1990; Finger, 1994; Lorek & Willinger, 1996; Chu, 1997; Francis & Schipper, 1999; Barth et al., 2001; Ryan & Zarowin, 2003; Farshadfar et al., 2008), and is also especially useful in assessing a company's liquidity and solvency (Ohlson, 1980; Heath, 1978; Sharma, 1996; Sharma & Iselin, 2003; Kirkham, 2012). Previous research has also shown that the information content of the cash flow statement, which is based on actual cash movements, is more relevant and reliable than balance sheet or income statement information, which is accrual based (Lee, 1981; Lawson, 1978; Hackel & Livnat, 1995; Yap, 1997: Jones et al., 1995; Burgstahler et al., 1998; Dechow, 1994; Cheng et al., 1997; Nurnberg, 2006). Thus, it is said to provide exactly the information financial statement users are looking for. On the other hand, a stream of research also shows that sometimes users are not able to appreciate the usefulness of the cash flow statement, and continue to consider the balance sheet and income statement as the primary statements (Lee & Tweedie, 1981; Arola, 2015; Epstein & Pava, 1992; Gadenne & Iselin, 1996; Kim & Kross, 2005; Yap, 1997). It is worth noting, however, that these were early studies when the concept of cash flows had just been introduced and later empirical research already finds support for an increasing usage of the cash flow statement by the users (Siegel, 2006; Cheng & Hollie, 2008; Carslaw & Mills, 1991; Stickney, 1993; Penman, 2003).

The main problem areas in the preparation of the cash flow statement outlined in literature can be classified into:

1) Comparability issues caused by legislation (Nurnberg, 1989, 1993, 2003; Nurnberg & Largay, 1996, 1998; Alderman & Minyard, 1991; Stewart et al., 1988; Weis & Yang, 2007; Miller & Bahnson, 2012)
2) Format of the statement (Kwok, 2002; Drtina & Largay, 1985; Heath, 1978; Wallace & Collier, 1991; Ewert & Wagenhofer, 2005; Brigham & Gapenski, 1993, Weston & Copeland, 1992; Apostolou, 1992; Knuston, 1993; Mahoney et al., 1988; Krishnan & Largay, 2000; Orpurt & Zang, 2009; Hales & Orpurt, 2013, Klammer & Reed, 1990)
3) Manipulation of cash flow statements (Mulford & Comiskey, 2002; Maremont, 2002; Broome, 2004; Dutzi & Rausch, 2016; Lee et al., 1999; Mulenga & Bathia, 2017; Ivanchevich et al., 2012; Lee,2012; Scholtz, 2008)

All the above issues show, that there is still a possibility that investors and other users of financial statements make economic decisions, without considering the issues affecting the preparation of the cash flow statement. Thus, a decision is based on the flawed statement and could lead to inefficient resource allocation.

Research gap. Most of the current research on the cash flow statement is empirical, very specific in nature and it investigates certain areas in detail. However, the lack of synthesis of those issues makes it difficult to evaluate the quality of cash flow statements and their position in the group of accounts: income statement, balance sheet and cash flow statement. Elkhsen and Ntim (2018) argued that the main problem of accounting is its failure to faithfully represent economic reality. Young (2006, p. 582) points out that currently "accounting methods are justified based on accounting activities, including recording, classifying, and interpreting or upon its conventions such as matching or conservatism rather than in terms of how the method may or may not produce information useful to particular types of users". The ultimate wealth-generation process is to generate cash. Thus, it is critically important for users of financial statements to understand how companies generate cash and how they manage their cash receipts and payments. It can be understood only if the company's reporting model is clear and complete.

The cash flow statement also lacks theoretical framework, as compared to its predecessors – the income statement and balance sheet. This research is important understanding the main issues concerning the cash flow statement. This doctoral thesis provides a comprehensive overview of the historical development of the cash flow statement and systemizes the main problems associated with it. The literature review identifies the lack of conceptual papers on the topic. The author of the given thesis thinks that the lack of theoretical backing for the cash flow statement prevents the statement from reaching its intended potential of providing useful information to the users, thus it needs to be revisited.

The aim of the thesis is to identify problem areas in preparing and using cash flow statements and propose a new model for the cash flow statement, based on the problems identified.

This thesis is divided into two major parts:

1) **Descriptive part.** The traditional perspective on the function of scientific research proposes description, explanation and prediction of a phenomenon (Denscombe, 2010; Bryman, 2016). The task of this part is to develop a proper understanding of the current status of the cash flow statement. It is done by providing a historical overview of the introduction and development of the statement, academic research on the usage of the statement and problem areas.
2) **Prescriptive part.** Much of accounting research is prescriptive, the "what ought to be done' nature" (Jensen, 1976) and is used for developing a good practice (Boehm, 1980, Denscombe, 2010, Bryman, 2016). The task of this part is to propose a new conceptual model for the cash flow statement, based on the problems identified in Part One.

To achieve the aim of the thesis, the author has raised the following **research questions:**

1) Is there a theoretical framework for the cash flow statement?
2) Does the current IFRS CF address this statement sufficiently?
3) What were the pressures for the establishment of the cash flow statement and did the standard setters incorporate them?
4) What is the information content in the cash flow statement?
5) How does it fulfil user needs? What are the major issues hindering the quality of information content in the cash flow statement?
6) What are the effects of the problems discovered on the quality of the cash flow statement? (The main criteria being how they violate the qualitative characteristics of useful financial information as described by the IASB and the FASB).
7) How could the format of the cash flow statement be changed to better suit the needs of financial statement users?

To achieve the aims of the thesis, six steps will be taken (see Figure 1.1.):

1) a historical overview of the development of the cash flow statement is done with the aim of identifying the main causal factors for the new financial statement and how the new statement fits in the overall theoretical framework of financial reporting;
2) the main problems in the preparation of the cash flow statement are identified based on literature review;
3) a meaningful classification of the problems into fewer and broader problem areas is introduced;
4) empirical evidence of the existence of those problem areas in the Baltic States is provided by conducting an analysis of published financial statements, specifically the cash flow statement;

5) the effects of the problems discovered on the quality of cash flow statements are assessed, the main criteria being how they violate the qualitative characteristics of useful financial information as described by the IASB and the FASB. Qualitative characteristics of financial reporting are promoted by standards-setters, so that representational faithfulness, comparability and transparency can add to more "traditionalist" or "positivist" approaches to accounting research (Watts & Zimmerman, 1978, 1990);
6) a revised conceptual model for the cash flow statement is proposed, based on the problem areas identified.

Parts					
Descriptive part					**Prescriptive part**
Tasks					
Examination of philosophical foundations of accounting.	Historical overview of the development of the cash flow statement.	Conceptualization of users of financial statements.	Problems in the preparation of cash flow statements.	Empirical evidence of the existence of those problem areas in the Baltic States.	Proposed new conceptual model for the statement. Proposed new conceptual model for the statement.
Objectives					
Determination of guiding theory.	Reasons for a new statement.	Definition of user's needs for information.	Identification and synthesis.	Identification and synthesis.	Propose a solution.
Research Questions					
Is there a theoretical framework for the cash flow statement?	What were the pressures for the establishment of the cash flow statement and did the standard setters incorporate them?	What is the information content in the cash flow statement?	What are the major issues hindering the quality of information content in the cash flow statement?		How could the format of the cash flow statement be changed to better suit the needs of financial statement users?
	Does the IFRS CF address this statement sufficiently?				
Chapters					
Chapter 1	Chapter 1 Chapter 2	Chapter 2	Chapter 2	Chapter 3	Chapter 4

Figure 1.1. General framework of the thesis
Source: compiled by the author.

Contribution of the doctoral thesis. Accounting comparability is perceived as a key factor of informative financial reporting. It leads to benefits for report users through improvements in information quality and quantity, as well as lower information obtaining costs. It also contributes to more efficient allocation of capital market resources and more effective performance evaluation by managers (De Franco et al., 2011). Accordingly, it has been listed as the most important property of financial accounting information by the IASB and the FASB. The IFRS CF states that if financial information is to be useful, it must be relevant and faithfully represent what it purports to represent. The usefulness of financial information is enhanced

if it is comparable, verifiable, timely and understandable (IASB, 2018). However, it is noted by researchers that in recent decades, corporate financial information, conveyed by increasingly complex and voluminous reports, has lost most of its usefulness to investors (Lev & Gu, 2016). In addition, there is a false belief that the conceptual framework has resolved all fundamental accounting issues and that accounting research should "help regulators fill in the technical details to implement their grand plan" (Basu, 2012, p. 854). Identifying major unresolved questions in the field can provide new directions for research quest.

The contribution of the present doctoral thesis is that using a synthesis of identified problems present in those reports and an analysis of their possible effects on the users of financial reports, would allow the author to propose changes in the format of the cash flow statement in order to improve its usability. The suggested new format of the cash flow statement is based on proprietary theory, which would better link it to the income statement and the balance sheet at the theoretical level. The author of the thesis will provide justification for the need for the development of new terminology, more specific definitions of concepts in the cash flow statement, and a need for a unanimous starting point for the statement (net vs operating income) to improve the comparability and understandability of reports. Following Basu's (2012) proposal for re-orienting accounting researchers towards addressing fundamental accounting questions from passively following accounting standard setters, this thesis addresses a fundamental conceptualization of the cash flow statement, its purpose and usage. A new conceptual model for the cash flow statement provides a starting point for thinking about the various influences and causal relationships that shape it. Overall, the conceptual model provided in this thesis can be used as an organizing framework, a way of understanding and thinking about various influences, a way of identifying additional factors to control for, and a way to identify new, interesting, and unexplored research questions.

The doctoral thesis is structured as follows.

Chapter 1 of the thesis examines philosophical foundations of financial reporting. In search of modern foundations of the accounting theory, Ijiri (1976) and Mattessich (1964) begin with mathematics. Sterling (1970) emphasizes the decision theory. Mock (1976) introduces elements of the formal measurement theory. Gonedes and Dopuch (1974) and Beaver (1981) stress the capital market setting, along with modern finance. Demski and Feltham (1976) start the information economics approach, extended by Christensen and Demski (2002). Watts and Zimmerman (1986) present a positive theory of accounting, and Sunder (1997) proposes a theory of accounting based on the contract theory (Demski et al., 2002). At the core of the accounting discipline lies a multidimensional tension between decision making and control. The author has used the proprietary and entity theory to explore the theoretical concepts of the IFRS CF (2018) developed by the IASB and their influence on the preparation of financial statements in general and the definition of the users and user needs. A specific overview of the conceptual model is provided, as it is designed to provide the basis for accounting standards. A further analysis is conducted to show that the CF does not cover the cash flow statement specifically, even though it specifies that one of the primary needs of the users is to "asses the prospects of future net cash inflows to the entity". The IFRS CF aspires to meet information needs of financial report users, with special reference to their decision-making needs; it has in mind that the existing and potential investors, lenders and other creditors are primary users (IASB, 2018). An important assumption is that reports are prepared on the assumption that the firm is a going concern (IASB, 2018). As decision making needs are the guiding objectives of financial reporting, the chapter proceeds with discussion and an analysis of specific financial report users and variances in their information needs. The concept of information usefulness has been dominant in the field and has resulted in a new definition of decision usefulness for capital providers, which means that information provided should help in assessing an entity's ability to generate cash inflows. Information

should enable financial statement users to assess an entity's liquidity and solvency, compare performance and make predictions (Gordon et al., 2017; Yap, 1997; Williams & Ravenscroft, 2015). As a methodological approach, document analysis is used.

The chapter then continues with a provision of a historical overview of the development of cash flow statements. It is important to determine the factors, which gave rise to the institutional pressure for a new statement (cash flow statement) in order to analyse whether the current version of the statement fulfils those needs. The chapter starts with brief discussion of cash accounting, the working capital concept and funds flow statement to show how their shortcomings have raised demand for a more comprehensive statement depicting the flow of cash in a company (Lee, 1972; Lawson, 1978; Lawson, 1985; Egginton, 1985, Rutherford, 1982). Proprietary and entity theories provide the conceptual framework for new needs of financial statement users.

The presentation of the development of legislation for the cash flow statement and major issues faced and discussed by standard setters in the USA, the United Kingdom, Australia and eventually the IASB is then provided. The disclosure of operating cash flows is one area in cash flow reporting that has been the subject of fierce debate by standard setters, preparers and users of financial reports. It is central to this debate whether to allow or remove the choice of disclosing operating cash flows "indirectly" or "directly", with Australia originally being the only country requiring only the "direct format", which was abolished after acceptance of the IFRSs. The issue of classification of activities has not gained so much attention from the standard setters, preparers and users of financial reports. The debate has mainly focused on classification options for interest and dividend income and payment. As a methodological approach, literature review and document analysis are used.

In Chapter 2, the first task is to conceptualize the main users of financial statements and their information needs. The author of the thesis does it by providing an overview of the legislation concerting the cash flow statement and the official definition of users by the standard setters. Further in the chapter, the literature review of empirical studies concerning the usage of the cash flow statement and the issues faced are presented. The purpose of this section is to provide the current perception of the purpose of the cash flow statement by standard setters, academics and users. The author of the thesis also identifies, that the cash flow statement is unique and different from the income statement and the balance sheet, as it can be used internally as well. Managers can use it for financial planning and control in both short term and long term. However, there seems to be a gap in literature in this respect, as no research of this aspect of information usefulness has been found. As a methodological approach, a literature review and analysis are used.

The second task of Chapter 2 is to identify and review specific issues hindering the usage of the cash flow statement. The usefulness of financial information to the users is reflected by comparability, because financial information about a company is more useful if it can be compared to similar information from other companies or to similar information from the company over different periods. Niyama and Silva (2001) state that comparability is the ability of users to compare the reports of different companies and different time periods, while Barth (2013) defined it as a qualitative characteristic that enables users to identify and understand differences and similarities among things. The cash flow statement is considered especially useful for inter-company comparisons or over time comparison, as the effects of different accounting treatments for the same transaction are supposed to be eliminated. Therefore, the focus of this chapter is to use the literature review to identify the main factors affecting the comparability of cash flow statements.

The issues are separated into five broad categories:

1) Format: direct vs indirect.
2) Definitions: activity, cash and cash equivalents, overdrafts.

3) Classification: activities, interests received and paid, dividends received and paid, income taxes.
4) Presentation options: acquisitions and dispositions, non-cash transactions (bad debt provisions, depreciation) capitalization effects, financing of receivables, re-classification of current assets, long-term debts, instalment sale and purchases (inventory, plant assets, rental assets).
5) Manipulation of the cash flow statement.

This overview of the prevailing problems with the statement identified in academic research, shows that there is no unified concept of the cash flow statement. This is the basis for Chapter 5, in which the author presents a new conceptual approach to the cash flow statement.

In Chapter 3 empirical research results are presented, investigating accounting comparability, which is perceived as a key factor of financial reporting under the current regulation. To the author's knowledge, all previous researchers have focused on the "old EU" states and no such analysis has been done for the Baltic countries. The aim of the study was to investigate whether a single set of rules for a specific financial statement guarantees similar treatment of items. Empirical results show that it is not the case and point out that with the widespread adoption of the IFRSs there is a risk that investors are misled into believing that there is more uniformity in reporting, than there actually is in practice (Ball, 2006). As the IFRSs are principles-based standards, IAS 7 gives financial statement preparers flexibility and allows to classify interests received, interests paid, dividends received and dividends paid as either operating, investing or financing activity, provided they are classified consistently from period to period. Harmonization levels among cash flow statement sections of Baltic listed companies have been measured using H-index and C-Index (van der Tas, 2008; Roberts et al., 2008). The results indicate that despite the fact that Estonian, Latvian and Lithuanian public companies are traded on the joint stock exchange, thus the same information requirements from capital markets and the fact that all three countries are member states of the European Union, thus the same directives concerning the IFRSs have been adopted, the application of IAS 7 is not harmonized. The results of the empirical study show that there is a longitudinal consistency of classification by observed companies for all items under analysis: the format of the cash flow statement, interests received, interests paid, dividends received and dividends paid, but not a cross-company one.

In Chapter 4 the author of the thesis provides the proposed conceptual model for the cash flow statement. Littleton (1953, p. 132) explains that accounting "theory states the reason why accounting action is what it is, why it is not otherwise, or why it might well be otherwise". Dichev (2017) states that conceptual foundations matter because they "organize and drive the more specific rules that govern financial reporting" (Dichev 2017, p. 617). Despite the already relative longstanding requirement of the cash flow statement, debates continue on the usefulness and information content of this statement (Barton et al*.,* 2010; Kumar & Krishnan, 2008; Laswad & Baskerville, 2007; Subramanyam & Venkatachalam, 2007; Ni et al*.,* 2019). The guiding idea behind the cash flow statement is that for a given company and period of time it provides a summary reconciliation of all cash flows. The author proposes that the weakness in the cash flow statement could be broadly classified into the following sections:

1) Lack of the definition of a business model and business activity.
2) Resulting classification problems (operating activities, investing activities, financial activities).
3) Presentation format (with the focus on presenting information useful for forecasting cash flows):

a) Direct vs indirect;
b) Starting point for reconciliation;
c) Conceptual outcome of cash flows.

The changes in the cash flow statement, proposed in this thesis align it with other financial reports at the theoretical level: the income statement reports net profit, which is net periodic benefit from equity investment in accrual terms; the balance sheet reports shareholders' equity, which the equity claims at a given point in time. Moreover, the proposed statement better serves the needs of primary investors, who are using cash flow data as the primary metric in building models for company valuation. Classification starts with identifying what is the main business, which in turn allows determining the boundaries for operating, investing and financing activities. Business activities could encompass operating and investing activities. This broader definition takes into consideration that the operation of a business also involves investing in plant, property, equipment in order to continue to operate. Separation of investing activities into operation-supporting and operation-expanding one allows report users to better forecast future cash flows. Moreover, operating and investing sections do not separate assets at fair value from other assets, for investment in a trading portfolio could be central to the business, as can be an investment in available-for-sale equity securities that are part of the strategic objective (i.e. to invest in firms with related or complementary technology).

A major problem with the three-way classification of cash flows as operating, investing and financing is that it is arbitrary. From the finance perspective, acquisitions of inventory and fixed assets are fundamentally similar (both are needed for continuous operations of the company – going concern concept), but the former one is classified as operating cash outflows and the latter as investing outflows under IAS 7 and ASC 230. Heath (1978) notes that the reason for such classification could be their different significance on the cash flows, as purchase of fixed assets is rather infrequent, usually large in amounts and the management is likely to have more control over their timings, as opposed to inventory purchases. Similarly, from the financial perspective, payment of accounts payable to suppliers and repayment of the loans to creditors are fundamentally similar, though are classified as operating and financing cash outflows correspondingly. As cash flows from operating, investing and financing activities are often interrelated, the current classification may impede, rather than enhance the understating and analysis by the report users. Ohlson and Aier (2009) argue that for analytical purposes the definition of financing cash flows is not sufficient. While it is clear that borrowings from a bank are financing activities, why increases in accounts payable are not classified as such (as it is a source of financing for the company). Therefore, the author of the thesis states that a new conceptualization of operating/investing activity and restructuring of the cash flow statement are required.

All four chapters of the thesis complement each other and provide a comprehensive overview of the development of the cash flow statement until today. Since 1979 when the FASB replaced the statement of changes in financial position with the cash flow statement, standard setters continued to permit flexibility in reporting formats and arbitrary classification options. Over the years, academics and practitioners have identified many problem areas in interpreting and applying the standard, but they have not been addressed in a systematic manner. The thesis provides a new conceptual model for the cash flow statement that would follow the same theoretical framework as the income statement and the balance sheet and would better satisfy the needs of primary users in terms of quality information for forecasting future cash flows.

Terminology used in the thesis

US English	UK English	IFRSs	This thesis
Statement of income, income statement	Profit and loss account	Statement of profit or loss	Income statement
Statement of financial position	Balance sheet	Statement of financial position	Balance sheet
Sales	Turnover	Revenue Income	Revenue Income
Operating Income		Profit from operations	Operating profit
Net Income	Profit	Profit for the period, profit	Net profit
Property, plant and equipment	Fixed assets	Non-current Assets	Fixed assets
Statement of cash flows	Cash flow statement	Statement of cash flows	Cash flow statement

List of Abbreviations

AARF	Australian Accounting Research Foundation
AAS	Australian Accounting Standard
AASB	Australian Accounting Standards Board
APB	USA, Accounting Principles Board
ASB	UK, Accounting Standards Board
ASBJ	Accounting Standards Board of Japan
CF	Conceptual Framework/Conceptual Framework for Financial Reporting
CFA	Chartered Financial Analyst
CFO	Cash from operations
ED	Exposure Draft
EFRAG	European Financial Reporting Advisory Group
FASB	Financial Accounting Standards Board
FCF	Free Cash Flow
FRS	UK, Financial Reporting Standard
GAAP	Generally Accepted Accounting Principles
IAS	Abbreviation for International Accounting Standards (IASs) issued by the antecedent International Accounting Standards Council (IASC), and endorsed and amended by the International Accounting Standards Board (IASB).
IASB	International Accounting Standards Board
IASC	International Accounting Standards Committee
ICAEW	Institute of Chartered Accountants in England and Wales
IFRS	International Financial Reporting Standard
IAS 7	IFRS, Statement of Cash Flows
NCFIA	Net cash from investing activities
NCFOA	Net cash from operating activities
SFAS 95/ASC 230	FASB, Statement of Cash Flows
SEC	Securities Exchange Commission
S&P 500	Standard & Poor's 500 index
SSAP	UK, Statements of Source and Application of Funds

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1 METHODOLOGICAL AND THEORETICAL FOUNDATIONS

The intellectual foundation of a discipline is a key to its respectability. The modern foundations of business management rest on principles of economics, applied mathematics and organizational psychology. In search of modern foundations of accounting, Ijiri (1978) and Mattessich (1964) begin with mathematics. Sterling (1970) emphasizes the decision theory. Mock (1976) introduces elements of the formal measurement theory. Gonedes and Dopuch (1974) and Beaver (1981) stress the capital market setting, along with modern finance. Demski and Feltham (1976) start the information economics approach, extended by Christensen and Demski (2002). Watts and Zimmerman (1990) present a positive theory of accounting, and Sunder (1997) proposes a theory of accounting based on the contract theory (Demski et al., 2002). At the core of the accounting discipline lies a multidimensional tension between decision making and control.

1.1 Research methodology

Accounting theory is a set of assumptions, frameworks, and methodologies used in the study of the development and application of financial reporting principles. The study of accounting theory involves a review of both historical foundations of accounting practices, as well as the way in which accounting practices are changed and added to the regulatory framework that governs financial statements and financial reporting. One of the best ways to explore the controversial areas in accounting theory is to start with a review of their historical development. The author of the current thesis will do this by a comparison and evaluation of the best practices of the standards-setters of the IASC/IASB, the United States, the United Kingdom and Australia. The trend of development also becomes apparent by a comparison of arguments presented over time by different authors of scientific papers and professional books. A considerable effort has been devoted to the evaluation of the different aspects of current controversial classification questions.

According to Yin (2003), using an exploratory approach, a researcher studies a phenomenon where the phenomenon being studied has no clear, single set of outcomes and research does not attempt to provide conclusive answers to the phenomenon, it guides towards future actions. The current thesis uses an exploratory approach, because in addition to investigating the issues suggested by the existing research, it also aims to understand the combined effects of those issues on the quality of a specific financial report: cash flow statement. Such study enables a researcher to generate hypotheses about the reasons for a particular accounting practice and these hypotheses can be tested in subsequent studies and attempts to discover problem areas previously unidentified, in addition to investigated issues noted in contemporary research. The author of the thesis describes the problems and considers their effects on the quality of financial reports for the users.

The various methodologies developed by philosophers of science are relevant to accounting and finance research as organizing, heuristic, and analytical frameworks (Hines, 1988). Mintzbeg (1979) and Zeff (1983) have suggested that accounting research is already constrained by a repression of criticalness and creativity, caused by “commitment to using rigorous statistical procedures that are incorrectly perceived by accounting researchers to be scientific method” (Hines, 1988). This study aims to overcome this limitation.

Miller (1977) suggests a classification of accounting research into three forms: basic, applied and usable. The basic or pure research is empirical or non-empirical research carried out without any specific practical use in view, it only needs to “discover a new problem” or “develop a new theoretical approach to solve previously known problems” (Miller, 1977, p. 44). Applied research tests solutions to problems and generates a theory from current practices,

with the view of eventually solving practical problems, though the impact on practice may not be immediate while usable research does not involve expanding or testing knowledge, but rather identifies and disseminates information from basic and applied research that is of immediate value to accounting practice. Such classification of accounting research broadens the definition of research and expectations from researchers and also has implications on the design and evaluation of research.

Many areas of accounting recognize both quantitative and qualitative methods. For example, a quantitative understanding of why investors buy certain shares has been enhanced by qualitative methods of actually asking investors (Gray & Milne, 2015). Qualitative research is a way to gain a deeper understanding of an event, organization or culture. Accounting research is dominated by the archival/statistical methodology (Searcy & Mentzer, 2003; Lukka & Kananen, 1996; Oler et al., 2010; Stephens et al., 2011). This is secondary research that includes research material published in research reports and similar documents. Secondary research is much more cost-effective than primary research, as it makes use of already existing data, unlike primary research where data is collected first-hand by organizations or businesses, or they can employ a third party to collect data on their behalf. Oler et al. (2010) state that the use of archival methodology has grown significantly in the last decades, while such methodologies as experiments, field study and surveys have declined. Oler et al. *(*2010) note that the archival method is the most common technique for data collection in accounting research. It is perceived to be more objective and since the researcher has no contact with the participants, it is considered unobtrusive and non-reactive.

There are different methods for conducting qualitative research; however, Leedy and Ormrod recommend the following five: case studies, grounded theory, ethnography, content analysis and phenomenological. The author of the current thesis will use content analysis through the integrative literature review. Leedy and Ormrod define this method as "a detailed and systematic examination of the contents of a particular body of materials for the purpose of identifying patterns, themes, or biases" (in Williams, 2007). The procedural process for the content analysis study is designed to achieve the highest objective analysis possible and involves identifying the body of material to be studied and defining the characteristics or qualities to be examined.

The integrative literature review is a form of research that reviews, critiques and synthesizes the representative literature on the topic in an integrated way, so that new frameworks and perspectives on the topic are generated (Torraco, 2005). The literature has been selected with care based on its general quality and its ability to present several sides to controversial qualification. As a result, integrative literature reviews could provide a significant reconceptualization of the topic: for example, Porras and Robertson (1987) on organizational development, D'Abate, Eddy and Tannebaum (2003) on mentoring, Torraco (2005) on work design, Guzon and Dickson (1996) on teams and so on. Information search was divided into the following stages (depending on the database, various stages were applied in a combination):

1) overview of the publications located in the databases based on key word search (search by subject index and browsing) and identification of relevant sources;
2) search and overview of the previously published literature reviews in the subject area of the cash flow statement (consultation and citation search);
3) overview of the main articles published by the internationally renowned scholars on cash flows. Focus on the primary sources (citation search and footnote chasing);
4) information search is not limited by the time factor.

According to Torraco (2005), once the authors of the literature review expose the strengths and weaknesses of current literature, they could take advantage of the breadth and depth of subject knowledge and create a better understanding of the topic through synthesis. It "weaves the streams of research together to focus on the core issue rather than

merely reporting previous literature" (Torraco 2005, p. 362). New ideas from literature could be synthesized in several ways:

1) set up a research agenda that follows logically from the critical analysis of literature. It should pose provocative questions (or propositions) that give direction for future research;
2) develop an taxonomy (Doty and Glick, 1994) of the conceptual classification of constraints as a means to classify previous research. It lays foundations for new theorizing;
3) develop alternative model or conceptual framework (Torraco, 2005) are new ways of thinking about the topic addressed by the integrative review. Alternative models of conceptions proposed by the author should be derived directly from the critical analysis and synthesis provided;
4) metatheory (Ritzer, 1992) is the integration and synthesis of a literature review that can provide the basis for developing metatheory across theoretical domains through future research.

This thesis uses alternative model or conceptual framework approach to integrative literature review. The review and critique of existing literature allows the author to propose a new model of the cash flow statement, because it posits new relationships and perspectives on the topic, via synthesis. It also yields new agenda for future research, such as terminology. As stated by Torraco (2005), critical analysis and synthesis work in tandem as the means through which literature (the data) is used to generate knowledge about a topic, which is created through critical analysis. The synthesis of previous research creates new perspectives on the topic as a whole. Zhao (2001, p. 391) states, "success of theorising is marked by actualization of what is advocated, rather than by the verification of what is uncovered".

In this section the theoretical and practical considerations of chosen methodologies have been provided. Table 1.1 provides a general outline of research according to research questions and chapters of the thesis.

Table 1.1. Research questions and research methods

Research Question	**Data and Research method**
Is there a theoretical framework for the cash flow statement?	Literature review Document analysis Archival, analytical
Does the current IFRS CF address this statement sufficiently?	Literature review Document analysis Archival, analytical
What were the pressures for the establishment of the cash flow statement and did the standard setters incorporate them?	Historical analysis Document analysis – archival data: standards, explanatory letters Analysis and comparison
What is the information content in the cash flow statement?	Literature review
How does it fulfil user needs? What are the major issues hindering the quality of information content in the cash flow statement?	Integrative literature review and synthesis
What are the effects of the problems discovered on the quality of the cash flow statement? (The main criteria being how they violate the qualitative characteristics of useful financial information as described by the IASB and the FASB).	Analysis and comparison
How could the format of the cash flow statement be changed to better suit the needs of financial statement users?	Opinion (Buckley et al., 1976)

Source: *compiled by the author*

1.2 Theories of the firm and accounting theories

It is known that accounting is relative to and contingent upon societal and organizational context. Therefore, accounting relativism is referred to as the co-existence of different theories of accounting representation and different income measurement (Zambon & Zan, 2000, Beattie et al., 1994). These accounting systems enable to distinguish between expense and expenditure by deciding whether one monetary outflow (expenditure) has to be capitalized as an invested cost (acquired asset) in the assets section of the balance sheet or expensed among other expenses in the income statement. In addition, it allows to distinguishing revenue from financing by deciding whether one monetary inflow has to be recognized as an incurred liability in the liabilities section of the balance sheet or accrued as gross income in the income statement.

The proprietary (owner's) theory and the entity theory are the most relevant orientation postulates, represent different conceptions of the firm and the way in which the accounting process is carried out, and define relationships between assets, liabilities and equity. Those theories originated from contributions by several European scholars in the 18th and 19th century. Later, those two approaches have been taken up and developed by American accounting literature as two opposing ways of looking at the firm and construction of the accounting model (Zambon & Zan, 2000). Bird et al. (1974, p. 234) note that the critical difference between the two theories lies in the "manner in which owner's equity is perceived": under the entity theory, owners' equity is seen as an obligation or a liability of the company to its owners, while under the proprietary theory, equity is not seen as a liability and a company is viewed as "an agent of the owners and records as an accounting by the proprietors for their own property" (Bird et al., 1974, p. 235).

Original advocates of the proprietary theory have been Sprague (1907), Hatfield (1909) and Kester (1917–1918) who stated that a company is a proprietor's investment, thus all assets are owned and all liabilities are owed by the proprietor. In this view, the company is not separate from the owner, and the primary objective is the determination and analysis of the proprietor's net worth. Hence, this view is asset-centred with the balance sheet as the major statement. The proprietary theory views net assets of the company as belonging to the owner, liabilities are their obligations and ownership equities accrue to the owners. Thus, equity is equal to the net worth of the owners:

Assets – Liabilities = Equities

Under the proprietary theory, the distinction between debt and equity is absolute (Maglio et al., 2017). Only monetary outflows to the third parties are considered as costs, according to this theory. Therefore, taxes and interests on loans are expenses to the proprietor, while dividends are withdrawals of own capital (Chow, 1942; Zambon & Zan, 2000; Bird et al., 1974; Biondi, 2012). Even cash dividends to preferred shareholders are treated as an expense of the company (Maglio et al., 2017).

The entity theory, which was first developed by Paton represents another view on the relationship between accounting and a company. According to this approach, a company is an independent unit and separate from its owners; the company is active and productive because it is managed and organized, not because it is owned (Biondi, 2012). Consequently, assets and liabilities are owned and owed by the company, correspondingly, and income belongs to the company until it is distributed to the shareholders in the form of dividends. Both liability and equity holders are seen as investors in the company's assets with different rights and claims on them. Therefore, according to the entity theory, there is not fundamental difference between liabilities and owner's equity:

Assets = Equities (including liabilities)

The primary focus is on determination of income for meeting the claims of the owners and the creditors thus the focus moves from the balance sheet as a collection of properties, obligations and claims, towards financial and economic flows, which are expected to be more useful and reliable in understanding a company's performance. Hence, the income statement is the primary statement. This theory minimizes the owners' role in the company and views them as outsiders, the same as creditors or suppliers. Caning has even stated that a proprietor is not the owners of the company, but only a holder of assets. The entity theory regards shares as a source of financing remunerated by dividends, without a direct connection to the property (or control) of assets and to the operational risks involved in this property (or control). The purpose of accounting is then to represent, not value, the company (Zambon & Zan, 2000; Bird et al., 1974; Biondi, 2012, Whittington, 1974).

Biondi (2012) summarizes that from the proprietary accounting perspective, a company's earnings and related equity are only temporarily allocated to the company and shall eventually be returned to shareholders, who are the ultimate residual claimants of all earned earnings. From the entity accounting perspective, there is a fundamental distinction between the company and its shareholders: net earnings belong to the company (current and accrued) and are then available to be invested or distributed to the other recipients and shareholders.

An accounting theory is used to explain every accounting practice having systematic principles and methodologies, different from accounting applications (Littleton & Zimmerman, 1962, Whittington, 1986). Prior studies have documented that different types of accounting theories have prevailed in guiding accounting practices during different periods of time.

Studies in accounting theories and accounting practices have been attempted since 1926, when The Accounting Review (TAR) of American Accounting Association (previously known as American Association of University Instructors in Accounting) was first published and subsequently many more international and national accounting journals have followed. Until the eighties, papers in The Accounting Review and in other leading journals have mostly incorporated multiple inductive studies on accounting theories, for example, a critical analysis of accounting principles (Rorem, 1937), corporate entity fiction and accounting theory (Husband, 1938), addressing current problems in accounting (Vance, 1944), review of current developments (Herrick, 1950), course contents framing (Walden, 1951), association with large firms (Suojanen, 1954), inductive approach (Schrader, 1962), statement writing (Sterling, 1967), Chambers's views (Iselin, 1968), events approach (Sorter, 1969), research perspectives (Wheeler, 1970), review of Accounting Principles Board Statement (Schattke, 1972), Littleton on accounting thought (Bedford & Ziegler, 1975) (in Deb, 2019). The research since 1980s has primarily focused on the practice aspects of accounting adopting a deductive approach. This trend has been continuing until today, with such research topics as standards implementation guidance (Proell & Nelson, 2007), PAT (Jeanjean & Ramirez, 2009), accounting errors and system approach (Adams & Hester, 2013, Beattie et al., 1994), reporting entity concept (Carey, Potter, & Tanewski, 2014), blended learning in accounting (Weil & Silva, 2014), accounting conservatism (Xie, 2015), accounting policy making (Sudana, 2016), articulation of accounting principles (Rutherford, 2016), accounting and gender-cultural imperialism (Davie, 2017) (in Deb, 2019). Therefore, it is possible to conclude that the trends of studies in the last century have shifted focuses from the inductive approach to the deductive approach. Deb (2019) points that accounting literature shows that accounting theories are the basis for preparing high-quality standards (Robson, 1988), and any deviation may reduce its explaining power (Freedman, 2010; Ohlson, 2015). The studies have also validated the importance of theories in the preparation of financial statements (Anderson, 1963; Devine, 1960; Miller, 1985, Beattie, 2014, Beattie & Davie, 2006).

Wilkinson and Durden (2015) and Beattie (2000, 2014) note that research in the 21st century has continued to document the deep problems associated with the dominance of a single paradigm, at least in the U.S. They conclude that the structure of the accounting discipline actively inhibits good scientific conversation due to a lack of transformative critique. Williams et al. (2006) provide compelling evidence of the decline in status of behavioural research in accounting and the dominance of the neoclassical economics research paradigm. They note that while behavioural research previously stood as a counter-balance to the economics-based agenda, such research has now been largely marginalized in the academy. The concern is that this impedes true scientific progress and relegates accounting research to little more than a reputation-building structure. Gendron (2008) approaches the problem from a performance measurement perspective. Using a Canadian-based case, he highlights the way in which easily available hard performance measures like journal rankings are used to simplify the process of evaluating academics and academic departments. Essentially, these measures allow quick and seemingly objective measurement but the superficial nature of the measures (journal "hits") translates into an oppression of intellectual curiosity and innovation. Again, the focus is on reputation building and reputations are built by publishing in highly ranked journals, which permit only a limited range of intellectual and methodological exploration. In a recent study of journal content, Just et al. (2010) analyse the top accounting journals over an 18-year period and find evidence of a highly homogenized agenda. Just et al. (2010) find that the average age of articles cited in the top accounting journals is much older than what is commonly seen in the natural and social sciences and that it has increased over time, rising from 9.5 years in their first period (1990–1995) to 11.5 years in their third period (2002–2007). This, they suggest, is consistent with the claims of a lack of innovation in accounting research and a lack of substantial theoretical development in accounting since the Watts and Zimmerman (1986) work on the positive accounting theory.

Hendriksen (1982, p. 56) notes recent accounting policies have been derived in the framework that "applies implicitly or explicitly the normative deductive or the inductive-deductive approach". Many methods and procedures are normative, as they were prescribed and have started from the observations of the actual prevailing business practices. Littleton, who together with Paton are considered pioneers in attempts to formulate an accounting theory, has used the inductive approach to suggest a framework where rules of actions could be translated into accounting principles (Hendriksen, 1982).

According to Hendriksen (1982), a complete theoretical framework of accounting should be focused on the following three levels:

1) Theories relating to the formal structure of accounting processes, including the rules and procedures and the interrelationship of these with formal financial reports. The objectives of accounting, under the given level of theory support historical cost accounting, as it is useful for conventional reports. Under this thinking mode, the primary objective of financial reporting is the computation and presentation of net profit, resulting from the application of the matching rule and the balance sheet. Therefore, the major emphasis is on the data collection process and the format of financial reports.
2) Theories that concentrate on the relationships between objects and events and the terms and symbols representing them. Under this line of thought, the emphasis is on the need to measure and report wealth and change in wealth along with specific claims on the company. The assumption held is that accounts are prepared for unknown users and the emphasis is on the measurement of objects and events.
3) Theories that emphasize the needs of the users of accounting information and the behavioural or decision-oriented effects of accounting reports and statements. Under

this behavioural line of thought, emphasis is placed on the needs of the users of financial statements. The major focus of reports shifting from just reporting events to providing relevant information to the users for making future predictions. However, as various users could have various information needs, attempts to cater to all, could lead to the presentation of a significant amount of information, which is irrelevant to any specific user.

Accounting theories and accounting practice. An accounting theory or a more specifically sound theory guides good practice (Walden, 1951). The theory–practice expectation gaps in accounting skills have been extensively studied (e.g., Kavanagh & Drennan, 2008; Low, Botes, Rue, & Allen, 2016; Marshall, Dombroski, Garner, & Smith, 2010). Studies have attempted to assess the expectation gaps (Marshall et al., 2010; Tempone et al., 2012) but even today such gaps do exist (Barac, 2009; Tucker & Lowe, 2014). Literature has pointed out different skills expected from accounting graduates by the industries, for example, interpersonal, analytical, teamwork, communication, emotional intelligence and creative, which have been found as shortfalls in them (American Accounting Association Pathways Commission, 2012; Bui & Porter, 2010; Gray & Murray, 2011; Klibi & Oussii, 2013; Tempone et al., 2012). A young specialist without any industrial training is not recommended for recruitment (Guthrie, Burritt, & Evans, 2012; Ryan, 2004), and accounting theories perhaps could manage the deficit.

Accounting theories and accounting standards. Accounting theories have provided a basis in the formulation of accounting standards even though lobbying and pressure from different stakeholders have significant influence as concluded by scholars (Horngren, et al., 1996; Moonitz, 1974; Zeff, 1972). Theories have originated to guide the emerging issues of practice (Littleton, 1948; Ross, 1967) and such theories, for example, the normative theory, have produced standards (Bricker & Previts, 1990; Hopwood, 1983; Robson, 1988). Different value relevance researches have provided a basis for standard setting (Barth et al., 2001; Holthausen & Watts, 2001), but recent studies published in top accounting journals have miserably failed in some common types of tests with less emphasis on theories, making such studies less relevant even for setting standards (Dyckman & Zeff, 2015, Freedman, 2010; Ohlson, 2015, Beattie & Davie, 2006).

Accounting theories and financial statements. Literature has concluded that financial statements have been prepared incorporating different accounting concepts and conventions and adopting the features of different accounting theories. The concepts like *conservatism* have indicated that all anticipated losses must be accounted for but not the reverse (Bliss, 1924; Devine, 1960) but have deviations among countries (e.g., Ahmed et al., 2013; Morais & Curto, 2009), *relevance* has emphasized the usefulness of the contents of financial statements for users' decision-making (Lee, 1982; McKeon, 1976; Miller, 1985; Ryan, 1988; Stewart, 1966), it should be *reliable*, that is, free from material error and unbiased (Bottrill, 1973; Halkerston, 1964; Kenley, 1969), *comparable* (Gole, 1964; Sharpe, 1998; van der Tas, 1992) and easily *understandable* (Anderson, 1963; Birkett, 1968; Craswell, 1969; Donnelly, 1964).

Accounting theories and accounting research. Literature has validated the supremacy of the positive accounting theory over other theories in main stream accounting researches (Gaffikin, 2006; Godfrey et al., 2006; Williams, 2009) as such studies have primarily focused on accounting functions (Boland & Gordon, 1992; Ryan, Scapens, & Theobald, 2002, Whittington, 2010). The second set of development in accounting researches have started with the origin of basic accounting theories issued by AAA in 1966 (Hicks, 1966; Riahi-Belkaoui, 2004; Sterling, 1967). The current trend of research has incorporated interrelationships of accounting with other disciplines like finance, economics, religion, sociology, marketing and even neurosciences (Barton, Berns, & Brooks, 2014; Farrell, Goh, &

White, 2014; Swanson, 2004, Beattie & Davison, 2015), while few studies have concluded that an overemphasis in the few top accounting journals have eventually finished with less space for accounting researches (Kaplan, 2011); hence, poor emphasis has been on concepts while setting standards (Allen & Ramanna, 2013, Beattie & Davie, 2006). Few recent studies have attempted to assess the accounting research and accounting practices based on sound theories (Barth, 2015; Sunder, 2015), linguistic style of the information presented in financial statements (e.g., Hobson, Mayew, & Venkatachalam, 2011; Jia, Van Lent, & Zeng, 2014)

The IASB has attempted this approach in its IFRS CF, as the Board has sought balance between providing high-level concepts and providing enough details for the CF to be useful.

Using the above three theory levels, according to Hendriksen (1982) a comprehensive framework should address the following considerations:

1) A statement of postulates regarding the nature of an accounting entity and its environment;
2) A statement of the basic objective of financial accounting;
3) An evaluation of users' needs and the constraints regarding the users' ability to understand, interpret and analyse the information presented;
4) A selection of what should be reported. This should include a selection of the objects and activities of the entity and its environment and the specific attributes that are relevant to the objectives of accounting;
5) An evaluation of possible measurement and descriptive processes for communicating information regarding the firm and its environment;
6) An evaluation of constraints regarding the measurement and description of the entity and its environment;
7) The development of principles or general propositions that can be used as guidelines in the formulation of procedures and rules;
8) The formulation of a structure and format for gathering and processing data and for summarising and reporting the relevant information.

1.3 The current focus of financial statements

According to the IASB, the main objective of financial reporting is the presentation of financial information about the reporting entity that is useful for capital providers (IASB, 2018). The benefits that users gain from financial statements depend on the concise and clear presentation of the underlying economic events in the company, with a focus on understandability and comparability. Therefore, it is rather strange that the IFRSs carefully regulate the recognition and measurement of accounting items but fails to regulate precisely how these items should be presented in the financial statements (Baksaas & Stenheim, 2019, Whittington, 2005).

Financial statements are maps of an economic territory and they present financial characteristics of a business enterprise, and as only a limited amount of information can be presented on a single map, numerous maps are required (Heath, 1978). Similarly, a single financial statement designed to present many different types of changes in the financial position of an enterprise would not be able to present them clearly. Statements of the objectives of financial statements have been a triggering point for development of CF from the 1960s (Dennis, 2018), while the search for some kind of theory of accounting that encompasses objectives and purposes goes back to 1920s (Zeff, 2013).

The concept of information usefulness has been dominant in the field and has resulted in a new definition of decision usefulness for capital providers, which means that information provide should help in assessing an entity's ability to generate cash inflows. Information should enable financial statement users to assess an entity's liquidity and solvency, compare

performance and make predictions (Gordon et al, 2017). Yap (1997) has investigated financial sector professionals in Australia – and concluded that by far the most used source of information for decision making is financial statements, while industry reports, economic and media reports, visits, etc. are only complementary. Watts and Zimmerman (1978) in their attempts to develop the positive theory of accounting and its application to standard development have noted the various pressures driving the accounting standard process, the effects of various standards on different groups and individuals, and the allocation of resources.

The conceptual framework is a set of broad principles that provide the basis for guiding actions and decisions. Before the 1970s, accounting was seen as a practical activity, with its own traditions, norms and principles. The principles were simply traditional ways of doing things and were called Generally Accepted Accounting Principles (GAAP). The IASB issued its first framework in 1989, and the most recent updated version was published in March 2018. The IASB does not claim that the CF is complete and acknowledge that it "may be revised from time to time on the basis of the IASB's experience of working with it" (Dennis, 2018, p. 374).

In 2002, the FASB and the IASB acknowledged their commitment to the development of high quality, comparable accounting standards that could be used for both domestic and international reporting. In 2004, both organizations added to their agendas to develop an improved common CF for reporting, which in 2006 resulted in the publication of a document titled "Preliminary Views Conceptual Framework for Financial Reporting: objective of Financial Reporting and Qualitative Characteristics of Decision-Useful Financial Reporting Information". In 2010, a follow-up discussion paper titled "Staff Draft of Exposure Draft" (ED) was published, which outlined that financial statements should be structured as follows:

1) business section, with two subsections: operating and investing;
2) financing section;
3) income tax section;
4) discontinued operations section;
5) multi-category transaction section.

The project was put on hold in 2010, and the IASB has initiated a project of better communication in financial reporting (Baksaas & Stenheim, 2019). Dennis (2018), quotes Gore (1992, p. 375) that "the FASB CF is said to be the longest, most expensive, and arguably the most important formally constituted research program in the history of accounting. It has not, however, come to be regarded as the most successful".

Development of CF. The framework is general and provides definitions, while a standard specifies how, for example, an asset has to be recognized and measured.

The purpose of CF (IASB, 2018) is to:

1) Assist the IASB to develop IFRSs that are set on consistent concepts, resulting in financial information that is useful to investors, lenders and other creditors
2) Assist preparers of financial reports to develop consistent accounting policies for transactions or other events when no Standard applies or when a Standard allows a choice of accounting policies
3) Assist all parties to understand and interpret the Standards

The IASB framework aspires to meet information needs of financial report users, with special reference to their decision-making needs. It has in mind existing and potential investors, lenders and other creditors are primary users (IASB, 2018). An important assumption is that reports are prepared on the assumption that the firm is a going concern (IASB, 2018). The Framework defines reporting entity as an entity that is required, or chooses to prepare financial statements.

The objectives of financial reporting are presented in Figure 1.2.

Objectives of Financial Reporting		
To provide financial information that is useful to users in making decisions relating to providing resources to the entity		
Users' decisions involve decisions about:		
buying, selling or holding equity or debt instruments.	providing or settling loans and other forms of credit.	voting, or otherwise influencing management's actions.
To make these decisions, users assess		
Prospects for future net cash inflows to the entity	Managements' stewardship of the entity's economic resources	
To make both these assessments, users need information about both:		
The entity's economic resources, claims against the entity and changes in those resources and claims		
How efficiently and effectively management has discharged its responsibilities to use the entity's economic resources?		

Figure 1.2. Objectives of financial reporting
Source: IASB, 2018.

For reports to be useful to users, information contained in reports must be both relevant and provide faithful representation of what it purports to represent. Thus, relevance and faithful representation are the fundamental qualitative characteristics of useful financial information and the guiding concepts applied throughout CF (see Figure 1.3.).

The 2018 edition of CF provides updated definitions for the five accounting elements: assets, liabilities, equity, income and expenses. The Framework does not address valuation or measurement and does not define the concept of capital or capital maintenance, thus is not comprehensive (Donleavy, 2018, Whittington, 2008).

The framework puts emphasis on the balance sheet, stating that it is a performance measure for the whole entity, the extent to which the fair value of the firm has grown over the accounting period, and is a better predictor of future prospects than information only covering a firm's current cash flows. It is a basis of justification for the framework's preference for the measurement approach over the information approach to financial reports (Donleavy, 2018).

Fundamental qualitative characteristics			
Relevance		**Faithful Representation**	
Information is relevant if is capable to making a difference in the decision made by users. Financial information is capable of making a difference in decisions if it has predictive value or confirmatory value.		Information must faithfully represent the substance of what it purports to represent. A faithful representation is, to the maximum extent possible, complete, neutral and free from error. A faithful representation is affected by the level of measurement uncertainty.	
Enhancing qualitative characteristics			
Comparability	**Verifiability**	**Timeliness**	**Understandability**
These four qualitative characteristics enhance the usefulness of information. However, they cannot make non-useful information useful.			
Cost constraint The benefit of providing information needs to justify the cost of providing and using the information.			

Figure 1.3. Fundamental qualitative characteristics
Source: IASB, 2018.

Barker and Teixeira (2018) note that as the framework focuses only on measuring assets and liabilities, with income and expense being only a consequence of this measurement; the current value is a prevailing measuring attribute and also lacks discussion on the purpose of the income statement. It should be noted, that the framework does not discuss the cash flow statement conceptually either, and no critique has been published as to that to this date.

Section 1.20 of the Framework deals with the issue of cash flows. It states, "Information about a reporting entity's cash flows during a period also helps users to assess the entity's ability to generate future net cash inflows and to assess management's stewardship of the entity's economic resources. That information indicates how the reporting entity obtains and spends cash, including information about its borrowing and repayment of debt, cash dividends or other cash distributions to investors, and other factors that may affect the entity's liquidity or solvency. Information about cash flows help users understand a reporting entity's operations, evaluate its financing and investing activities, assess its liquidity or solvency and interpret other information about financial performance" (IASB, 2018, 11).

For several years, the IASB and the FASB have tried to develop options for presenting financial information in a more modern, different format. In October 2008, the IASB has published a discussion paper titled "Preliminary Views on Financial Statement Presentation", and in 2010, the IASB and the FASB have jointly revealed staff drafts on a proposed standard on financial statement presentation. The major change proposed has been integration of various reporting formats: the financial position, income and cash flow statements (see Table 1.2). The proposed changes have been designed to better meet the information needs of investors, to provide clearer and more complete information, and to present the information in a format that would make the information readily accessible to investors.

Table 1.2. Proposed standard on financial statement presentation

Statement of financial position	**Statement of comprehensive income**	**Cash flow statement**
Business	Business	Business
Operating assets and liabilities	Operating income and expenses	Operating cash flows
Investing assets and liabilities	Investing income and expenses	Investing cash flows
Financing	Financing	Financing
Financing assets	Financing asset income	Financing asset cash flows
Financing liabilities	Financing liability expense	Financing liability cash flows
Income taxes	Income taxes on continuing operations (business and financing)	Income taxes
Discontinued operations	Discontinued operations net of tax Other comprehensive income net of tax	Discontinued operations
Equity		Equity

Source: Ramin and Reiman, 2013; CFA Institute, 2007.

On June 24 2010, the IASB and the FASB effectively discontinued this project, deciding to engage in additional outreach activities before finishing and publishing an ED.

CF explicitly states that financial reporting should be designed to reflect the needs of capital providers as the primary users of financial accounting information. However, as there are numerous capital providers (professional equity investors, private equity investors, inside equity investors, public and private debt providers, trade creditors), there is a significant variety in their information needs (Cascino et al., 2014). Capital providers use accounting

information in different ways and their objectives when using different sources of information sometimes compete. Financial reporting information has distinct characteristics that set it apart from other information sources and is generally regarded as highly important for both financial decision-making and contracting/stewardship purposes; however, it is by no means the only source. Empirical findings imply that there is no clear prototypical user group on which standard setters can focus when developing standards. Also, capital providers use accounting information for different purposes, so it seems questionable whether a truly 'general-purpose' financial accounting regime can exist. Finally, since financial accounting information is used in conjunction with other sources, it is not obvious that financial accounting should aim to present a holistic 'true and fair' view of the enterprise (i.e. a comprehensive assessment of the performance and financial position of the firm) or rather its design should exploit its competitive advantages of verifiability, objectivity, regularity and standardization (Cascino et al., 2014). Anderson and Epstein (1995) found that unsophisticated investors relied more heavily on advice from stockbrokers and financial newspapers and magazines than on the financial reports in making their investment decisions. Lambert (2010) notes that for financial decisions, investors use information for estimating future cash flows, while for stewardship purposes they use the information to affect future cash flows.

Investors no longer depend on one single number of earnings to make their investment decisions. They are interested in a number of areas, like resources available to the company, its obligations, ability to generate long-term sustainable inflows of recourse, ability to convert resources to cash, risk to which cash generation is subjected (CFA Institute, 2017). As financial statements are interrelated, to understand one statement investors need to understand them all. Thus, it is vitally important for investors to understand how the firm creates value and whether this value generating process is sustainable. The ultimate objective of the wealth generation process is to generate cash, thus it is of paramount important for investors to understand how a company is generating cash and how cash receipts and payments are managed. Academic research shows that "disaggregating earnings into cash flow and the components of accruals enhances earnings' predictive ability relative to aggregate earnings" (Barth et al., 2001, p. 28). Furthermore, separate reporting of cash flows and accruals allows investors with different objectives to apply different weights to figures in their valuation and prediction models.

Investors, regulators and academics emphasize the importance of financial statement comparability, as it lowers the cost of acquiring information, and increases overall quantity and quality of information available to the outsiders about the firm (De Franco et al*.,* 2011). Both the FASB and the IASB define comparability as the qualitative characteristic of financial information, which enables users to identify and understand similarities and differences among items (Sohn, 2016).

The term "comparability" is defined rather broadly in accounting literature. De Franco et al. (2011) defines it as the idea that "an accounting system is a mapping from economic events to financial statements" and thus "given a set of economic events, two firms have comparable accounting systems if they produce similar financial statements" (De Franco et al., p. 896). Taplin (2011) discussed the advantages of measuring comparability of financial reports with harmony indices (H, C and I indices).

Another branch of research has focused on the effects of accounting comparability. Gong et al. (2013) investigate the effects of comparability on management disclosure and find that managers are more likely to provide earnings forecasts when their earnings' synchronization with other firms is lower. Kini et al. (2009) find that companies' sector diversification increases due to improved cross-company comparisons, if analysts belong to a country requiring more disclosure in annual reports. Engelberg et al. (2016) investigate the effect of geographic and industry proximity on the choice of institutional investors' portfolio

structure. Kim et al. (2013) develop a financial statement comparability measure based on Moody's adjustments to reported earnings for the purpose of credit rating. De Franco et al. (2011) investigate the effect of accounting comparability on analysts' coverage and forecasts, and report that analysts' coverage increases, forecast accuracy improves, and forecast dispersion diminishes when accounting comparability of firms is higher. Thus, comparability allows analysts to better explain a firms' historical performance or to use information from comparable firms as additional inputs to their analysis (Sohn, 2016). Sohn (2016) draws attention to the fact that increased accounting comparability has forced managers to use more real activity manipulation to boost reported earnings and cash flow from operations, which has adverse consequences in the long-term value. His findings are consistent with Roychowdhury (2006). Brochet et al. (2013) investigate companies domiciled and the United Kingdom and show that companies experiencing the greatest increase in comparability exhibit greater reduction in abnormal returns to insider purchases.

1.4 Discussion of working capital as the basis for cash flow statement

The SFAS 95, Statement of Cash Flows (FASB, 1987) was passed in November 1987 and has become mandatory for firms in the United States from 1988. This statement replaced the Statement of Changes in Financial Position (SCFP), which was usually called "funds statement" (Hales & Orpurt, 2013).

In the late 1970s and early 1980s, the emphasis of financial accounting shifted from working capital focus, which had been the main focus of funds statement to cash flow reporting (Lee 1981; Lee 1992; Lawson 1978). At the same time, the researchers started with an extensive definition of funds, stressing cash aspect of it (Clark 1983), as during the liquidity crisis of the 1970s, many firms reported high earnings but low cash flows from operations. The classical example of the bankruptcy of W. T. Grant Company, the US largest retailer of the time, served as a basis, as its lack of cash from operations was not identifiable from the funds statement and came as a surprise to investors. Heath (1978) has stressed an obvious, but often misused concept that in accrual accounting, profit is not a "physical thing" that can be used, paid out or retained, it is simply a name given to a change in a company's net assets because of operations. Similarly, (net) working capital is not a pool of cash; it is only the difference between current assets and current liabilities, while actual cash is needed to pay for expenses, loans, etc. The main question of credit analysis is not whether the working capital is sufficient, but whether the expected cash inflows would equal or exceed the required cash outflows. Heath (1978) further stresses that the main sources of cash for a company are from selling products or services to customers, from borrowing and issuance of shares to investors, thus not included in current assets at all; while the main outflows are payments to employees, suppliers, government, repayment of debt, which again can be not reflected in current liabilities. In summary, current liabilities are paid with cash, not current assets, thus there should be a focus on cash flow as opposed to funds flow.

1.4.1 Cash flow recording

Cash flow accounting is a term used to denote a system of financial reporting which describes the financial performance of a company in cash terms. Cash flow accounting is one of the oldest forms of record keeping dating back to the middle ages, and is based on matching periodic cash inflows and cash outflows, free from credit transactions and arbitrary accounting allocations (Lee, 1993). Consequently, it concentrates on liquidity and financial management of a company. Over the years, double entry bookkeeping and accrual accounting developed, causing a radical change to accounting: matching the costs of resources used with the associated revenues generated by those same resources. Matching

cost and revenue flows has enabled firms to calculate a profit or loss for the reporting period, which was useful in ensuring the accuracy and completeness of the accounting records presented to the owner. In the late 1970s and early 1980s, US accounting policy makers and standard setters initiated again a process of providing a separate statement based on cash accounting in addition to the conventional set. This new dimension was disclosure of data free from arbitrary accounting allocations, emphasizing a company's liquidity rather than profitability.

1.4.2 Funds statement

The balance sheet and income statement have been the required statements for many years, but the cash flow statement has only been formally required in the United States since 1988. However, cash flow statements, in some form or another, have a long history in the United States. In 1863, the Northern Central Railroad issued a summary of its financial transactions that included an outline of its cash receipts and cash disbursements for the year and U.S. Steel Corp. offered a "resources and disposition thereof" report in 1902 (Hales and Orpurt, 2013).

The balance sheet, in a less or more sophisticated format, has been the main financial statement for centuries. As business owners were primarily concerned with the company's financial position, the balance sheet was considered more important than the profit and loss statement. The profit and loss account was used to close ledger accounts at each period (Lee, 1993). However, with the raise of the concept of business continuity, there appeared a need to produce periodic measurements of profits in addition to statements of financial position (Lee, 1993). According to Brown (1971), between 1920 and 1940, the income statement became increasingly more important to investors, and was caused by the rise of the "modern corporation" which was based on separation between owners and managers. In addition, an increased usage of stock market as a source of external financing in the United States highlighted the need for financial reporting pertaining to equity holders, as opposed to creditors. The focus of reporting shifted to profitability as it was perceived to be a source of information to evaluate management's performance and future prospects of dividend payments (Brown, 1971). Other external pressures were also present to support the shift towards the income statement focus. One of them came from the government, namely tax authorities, as the profit/loss figure reported in the income statement was used for the calculation and collection of corporate income tax. Another one came from the rapidly changing prices in the early 20th century. This resulted in a specific need for information, which could allow to evaluating effects of inflation on the profitability of business and its going concern (Brown, 1971). The income statement was seen as a tool suitable for that as it was based on current prices, not the historical ones, like balance sheet. Seymour Walton, writing in 1914, recognized the need for a financial statement, which would provide a liquidity perspective and would complement the income statement's point of view (Rosen & DeCoster, 1969).

However, after a few decades, investors, creditors and analysists have started to demand more information than traditionally reported in the balance sheet and income statement, and companies started to disclose additional information for funds flow during an accounting period. Donleavy (1992) reports that a random sample of Fortune 500 companies revealed that 39% had reported some form of funds flow statement as part of their annual accounts by 1962. However, comparability between different firms' funds flow statements quickly became a problem due to a lack of adequate regulation.

In 1961, the American Institute of Certified Public Accountants (AICPA) carried out a study "Cash Flow Analysis and the Funds Statement" and recommended that the funds statement should be included in annual reports along with the income statement and

balance sheet. As a result, in 1963, Accounting Principles Board (APB) issued Opinion No 3 "The Statement of Source and Application of Funds", which provided preparation guidelines for the statement. It has used an all-financial resources concept, meaning that non-cash transactions, such as purchase of plant assets with issue of shares, also have to be included in the statement. The idea was positively accepted both by the New York Stock Exchange and by the Financial Analysts' Federation. Consequently, in 1971 APB opinion no 19 "Reporting Changes in Financial Position" started requiring that a "funds statement" (see Table 1.3) be included as one of the three primary financial statements in annual reports to shareholders (Belkaoui, 1992).

Table 1.3. Illustrative example of funds flow statement

Company X: comparative year-end balances		
	Beginning	*Ending*
Cash and short-term receivables	275,000	295,000
Long-term receivables	150,000	175,000
Inventories	700,000	630,000
Long-term lease advances (after amortization)	200,000	225,000
Equipment (cost)	125,000	165,000
Allowance for depreciation (credit)	(50,000)	(55,0000)
Total	1,400,000	1,435,000
Current liabilities	225,000	230,000
Long-term notes (%)	275,000	300,000
Capital	850,000	850,000
Retained earnings	50,000	55,000
Company X: Income statement for Year		
Sales and other revenue		1,200,500
Expenses (including cost of goods sold)	1,017,750	
Taxes	95,000	1,112, 750
Net profit (before interest)		87,750
Interest		17,750
Earnings applicable to shareholders' equity		70,000
Dividends		65,000
Earning retained		5,000
Company X: Funds-Flow Analysis for Year		
Collection of long-term receivables originated in earlier periods		125,000
Receipts and current receivables originating from current sales		1,049,000
Cash or equivalent from retirement		8,000
Funds from past revenue or retirements		1,182,500
Expenditures or equivalent included in expenses, taxes and interest		525,500
Funds balance before dividends		657,000
Dividends		65,000
Funds balance after dividends		592,000
Utilization of Funds Balance		
Inventory replacement	480,000	
Equipment expenditure	47,000	
Leasehold acquired	50,000	
Increase in excess of liquid assets over current liabilities	15,000	592,000

	Beginning	*Ending*	*Difference*
Cash and short-term receivables	275,000	295,000	20,000
Current Liabilities	225,000	230,000	5,000
Excess of cash and receivables	50,000	65,000	15,000

Source: Paton (1963), pp. 248–249.

It should be noted, that the APB did not specify a single definition or concept of funds or a required format for the statement. The most commonly used definition of "funds" was working capital (current assets minus current liabilities). Thus, a "funds statement" reported changes in cash, accounts receivable, and inventory as if they were the same thing. The funds statement was not without its problems. Increases in receivables and inventory without a corresponding increase in sales would result in positive funds from operations yet result in no cash. The W. T. Grant Company provided a classic example of the downside of using the working capital definition of funds. The largest retailer in America prior to its bankruptcy filing in 1975 was W. T. Grant, whose continued build-up of inventory and receivables (resulting in positive funds from operations) masked a five-year negative cash flow from operations that eventually led to the company's demise (Heath, 1978).

In the late 1970s and 1980s, the funds statement came under criticism. Researchers started calling for shifting the emphasis from the working capital concept to cash flows. Heath notes that for many accountants the definition of "funds" itself was positing a problem, which led to confusion over the basic objectives of the funds statement. In addition, there was a wide belief that the funds statement was showing what "happened" to a company's profits or "where the profits went", without a proper understanding that the profit is not a physical thing that can be disposed of, retained or paid out. The profit is simply a concept name given to the change in a company's net assets over time because of operating, investing and financing activities, and a change in an asset is not an asset (Heath, 1978, p. 95). Thus, a suggestion was made to focus on the actual cash flows, instead of "funds". Since Opinion, 19 "Reporting Changes in Financial Position" was promoting flexibility in form, content and terminology, it has led to various applications and a lack of comparability between companies. Donleavy (1992) provides an overview of a number of academics criticising the requirement for SCFP as defined by APB No. 19. Some comments stated that the funds flow statement was confusing, misleading and ambiguous (Holmes, 1976; Taylor, 1979; Han, 1981; Smith, 1985, Sorter, 1982). Others noted that the loose definition of "funds" by the standard, which could be either "working capital" or "cash", was also confusing (Spiller & Virgil, 1974; Swanson & Vangermeersch, 1981; Ketz & Kochanek, 1982; Clark, 1983; Bryant, 1984; cited in Donleavy, 1992).

In 1982, Barbara Thomas, a commissioner of the Securities and Exchange Commission (SEC), Washington D.C. noted that even though for more than 500 years the central focus of accounting had been reporting of solvency and cash flows, from the 1930s the financial community had been "obsessed with the income statement and its all-important bottom line figure – net profit and earnings per share" (Thomas, 1982). The renewed interest in cash flow data, from 1970s, was caused by a few factors. Firstly, the connection between the state of economy and priorities of financial statement users: "when times are hard, people care more about immediate cash value than about uncertain future prospects" (Thomas, 1982, pp. 99). Secondly, there was a realization among financial statement users and preparers, that "accrual basis earnings and earnings-per-share data are not sufficient to assess the performance of an enterprise adequately" (Thomas, 1982, p. 99). An empirical study by Spiller and Virgil (1974) continued to find significant differences between the funds flow statements disclosed by their sample of 143 public firms, which were caused to different interpretations of the requirements of APB No. 19. The authors concluded that the standard had significant weaknesses in clearly defining one overall purpose of the SCFP. The diversity of practice was causing academic criticism that the objectives of fund flow accounting in both the USA and UK were unclear (Heath, 1978; Lawson, 1985). Drtina and Largay III (1985) prepared a critical review of disclosed funds flow statements by comparing the SCFP's from three listed entities. Their findings highlighted the significant caveats contained within APB No. 19 and advocated the use of the direct method to report operating cash flows.

This method reported gross operating cash flows directly on the cash flow statement, as opposed to the indirect approach, which calculated the net operating cash flow by adjusting the net profit for accruals and non-cash amounts. Drtina and Largay III (1985) demonstrated the direct method more accurately and clearly portrayed the firm's operating cash flows, especially since APB No. 19 inadequately defined operations.

While most papers were highly critical of APB No. 19, Donleavy (1992) notes that some researchers have been positive that the SCFP did provide useful information which could improve the accuracy of forecasting cash flows and business failures: Siegel and Simon, 1981; Byrd and Byrd, 1986; Coker, 1986 (in Donleavy, 1992). At the same time, noting that major shortcomings, such as lack of agreement on its purpose, lack of agreement on what funds meant, steadily increasing preoccupation with cash as opposed to broader measures of liquidity, confusing variety of formats and general absence of education or training in interpretation of statements, as opposed to its calculation, has really "killed the funds statement" (Donleavy, 1992, p. 40). Consequently, the resulting discussion has led to the development of the cash flow statement and its official endorsement in the USA in 1987.

1.4.3 Working capital concept

Capital and working capital are one of the most widely used concepts in business analysis, but also one of the least understood.

The term "capital" has different meanings in economics, finance, accounting and business fields. Professor Christopher Nobes (2005, p. 60) has expressed: "(Capital) A word used somewhat loosely in the business world in general, and even by accountants. It may mean the total of a COMPANY'S finance, including all share capital, past profits, long-term loans and CURRENT LIABILITIES. Such an aggregation might be called total capital. It would, of course, equal total assets. However, capital might also be used to mean the long-term finance, that is, the above total less current liabilities. Yet another meaning might be all the elements of capital belonging to shareholders (shareholders' EQUITY); or even just the amount of money contributed in the past by the shareholders. Unfortunately, the reader will have to determine the exact meaning by the context." Comment: Still worse, economists tend to use the word 'capital' to refer to items on the other side of the balance sheet, particularly FIXED ASSETS and INVENTORIES. Professor Jaan Alver has provided a good accounting and finance literature overview, which shows that there is no standard definition for the "capital" concept (Alver, 2011; Alver, 2013).

The concept of working capital follows the same suit. It originated at the beginning of the twentieth century with the distinction between fixed and circulated capital (Alver and Alver, 2014). Later it has been disaggregated into two concepts of gross working capital and net working capital, the distinction between which is very important for company analysis. Back in 1966, Fess noted that the concept of working capital is shifting from the measurement of a debtor's ability to meet its obligations in an event of liquidation, to the operating view of a measure that is the "amount of working capital required at a particular point of time" or "margin/buffer for meeting currently maturing obligations" (p. 266). Fess (1966) notes the issue of classification, as the definition of the operating cycle does not limit current assets or current liabilities to the length of one-year, which is an assumed length by financial statement users. For example, under the current asset of inventory a retail company could have inventories, which are turned over many times a year, while a distillery company could have beverages, which have been held for years, under the same category. He also draws attention to the fact that a limitation in the static approach is the actual operations of the company, in the course of which, current accounts receivable are collected and replaced with new ones, or current liabilities are paid off, and again incurred for the purchase. Thus, according to the going-concern principle, it is more meaningful to derive a measure of the level of current

assets and current liabilities required for operations. Already back in 1966, Fess pointed out that for the purpose of the analysis of working capital, valuation issues must be taken into consideration. For example, some current assets might be reported at cost (prepaid expenses), some are reported at fair value (marketable securities), some at lower-of-cost or market (inventories), some at net realizable value (accounts receivable less allowance for doubtful accounts) and some at current value (cash) (Fess, 1966). To overcome this the author has proposed to identify resources (current and fixed) and obligations to cover them, while the remainder is owners' equity.

The major drivers for working capital are accounts receivable, inventory, prepaid balances in current assets and accounts payable, other payables and unearned income in current liabilities and their management affects a company's short-term financial performance (Yazdanfar & Öhmna, 2014). A generally accepted definition of net working capital is: current assets minus current liabilities. If current assets exceed current liabilities, the company is said to have a positive working capital, if they are the same, it is a neutral working capital and if current assets are less than current liabilities, it is negative working capital. A positive working capital, though the most common position for companies, is not necessarily most beneficial as it shows how much increased funding would be required if the company's revenue increases. The negative working capital position can be perceived as two-fold: positive or negative. If the company is in a sound financial situation, the biggest advantage of negative working capital is that it essentially provides free funding for the company, as suppliers (accounts payable) are financing current assets. It could also mean that company is cash rich with a short cash flow cycle. Some industries, such as telecom or airlines continuously have a negative working capital, as they collect prepaid money at the time of booking and provide the service later. However, a negative working capital could also signal that a company is experiencing financial difficulties and is not able to cover its obligations. Notice that the above definitions of (net) working capital as current assets less current liabilities (or the difference between current assets and current liabilities) only explain how it is computed. It is necessary to express that an arithmetical operation is given in place of an actual definition. Welsch and Short have stated: "Working capital involves an arithmetical difference – total current assets minus total current liabilities. Thus, working capital is an abstraction because it does not represent a single asset, or group of similar assets, rather it includes total current assets and an offset – total current liabilities. It cannot be counted, handled, or used to settle receivables and payables. Because of its abstract nature, working capital often is not fully understood by statement users." (1987, p. 776).

All of this raises an important question: is (net) working capital simply a mathematical computation or something more?

Estonian professors Jaan and Lehte Alver (Alver, 2006; Alver & Alver, 2011; Alver, 2013; Alver & Alver, 2014; Alver & Alver, 2015) have developed a very interesting concept of working capital, which is described below.

Before defining (net) working capital, it is useful to focus on one of the oldest principles in finance – the matching principle, which can be stated as follows: finance short-term needs with short-term sources, and finance long-term needs with long-term sources (Shall and Haley, 1990). The idea expressed in this principle is to "match" the maturity of the source of funds with the length of time the funds are needed. Walsh states: "A certain balance should exist between the long-term assets and funds on the one hand and the short-term assets and funds on the other. As a general rule, long-term assets in a company should be matched by corresponding long-term liabilities and vice versa." (Walsh, 1993, p. 94).

Following the matching principle (see Figure 1.4), net working capital could be defined as owners' claims on current assets and net current assets as the amount of current assets acquired through investments made by the owners (Alver & Alver, 2014).

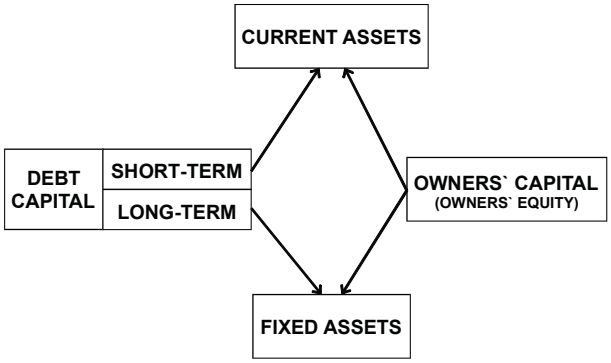

Figure 1.4. Matching principle
Source: Alver & Alver, 2014.

Following the matching principle (see Figure 1. The position by the Alvers is supported by Harrison and Horngren, who claim "capital or owner's equity is total assets minus total liabilities. Working capital is like a current version of total capital" (Horngren & Harrison, 1996; Harrison & Horngren, 1998). Gallinger and Healey (1991) state that "if current assets exceed current liabilities … net working capital is permanent capital invested in current assets. If current assets are less than current liabilities, the excess of current liabilities over current assets is helping to finance fixed and other assets" (p. 72). However, despite the seemingly simple concept, it is not possible to compute the amount of net working capital directly because:

Net working capital = Current assets – Current liabilities
and
Net current assets = Current assets – Current liabilities
but
Net working capital ≠ Net current assets

Therefore, even though mathematically the amount of net working capital is equal to net current assets, conceptually they cannot be synonymous for the simple reason that capital and assets are located on different sides of the balance sheet (Alver & Alver, 2014).

The Estonian professors tried to determine the correct relationships between the terms net assets, capital, net current assets, working capital, net working capital and eliminate the anarchy in the usage of these terms. In the process of determining the correct relationships between the aforementioned terms, semantical and logical connections have been followed. It means that the general (semantical, logical) rule – **look for all kinds of capital on the liabilities and owners' equity side and all kinds of assets on the assets side of the balance sheet** – has been consistently followed. To build up a correct system of terms and give them proper substance, Jaan and Lehte Alver, based on a **linguistic approach**, and using well-known relationships between different parts of balance sheet developed the following conventional model of the balance sheet (Alver & Alver, 2014; Alver & Alver, 2015):

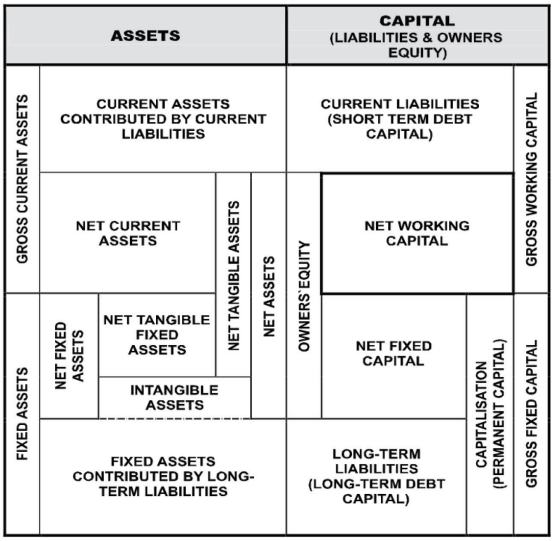

Figure 1.5. Conventional model of balance sheet based on linguistic approach
Source: Alver & Alver, 2014.

Figure 1.5 shows also the correct usage of the other English terms to define different parts of the balance sheet. Notice that on the right side the usual order (short-term liabilities, long-term liabilities and owners' equity) is not followed: the places of long-term liabilities and owners' equity have been exchanged. It makes it feasible to emphasize the substance of the terms used to mark distinguished parts of the balance sheet.

Shin and Soenen (1998) state that efficient working capital management is an integral part of overall corporate strategy to create shareholder value and stress the importance of viewing this as a process of the cash conversion cycle, as opposed to the static calculation of traditional liquidity measures (current ratio, quick ratio or net working capital). The cash conversion cycle (CCC) focusses on the length of time between a company making payments and receiving cash flows. Wang (2002) extends this definition by noting that the CCC measure recognizes that the life expectancies of some working capital components depend upon the extent to which the four basic company activities (purchasing/production, sale, collection and payment) are "unsynchronized" (Wang, p. 160). Therefore, CCC is a dynamic measure of ongoing liquidity measurement and combines both the balance sheet and income statement data. Management of CCC involves a trade-off between liquidity and operating performance. For example, a company with larger sales and more extended credit terms would have a longer CCC, which could affect profitability negatively (Shin & Soenen, 1998). However, the author of the thesis sees an inconsistency here, as larger sales even with longer credit terms, could still improve profitability, if the margins are higher than the cost of financing. Yazdanfar and Öhman (2014) find that large and young companies tend to be more profitable, even if they do not maintain optimal working capital.

As profit was no longer seen as sufficient to understand the operations of a company, the idea of the cash flow statement idea introduced by academics. The original idea was that the purpose of the cash flow statement is the conversion of the accrual profit into the cash based profit. In such a case, only items shown before operating profit from the income statement should been allowed to be used in conversion. However, the same issues of the lack of a clear and precise definition, like in working capital, continue to be present in the cash flow statement.

The following section provides a historical overview of the development of the cash flow statement.

1.4.4 Free cash flow concept

Free cash flow (FCF) concept has become rather important in financial statement analysis. The notion could be credited to Jensen (1986), who developed a theory involving FCFs that asserts that conflicts exist between shareholders and corporate managers over free cash flow distribution. He states that managers attempt to retain cash and allows a company to grow beyond its optimal size due to such reasons as increasing management power and compensation, while shareholders on the other hand, largely desire dividends. Lang and Litzenberger (1989) found that consistent with Jensen's FCF theory, firms categorized as over investors had statistically significantly higher security returns. Lackey and Poulsen (1989) found a significant relationship between undistributed FCF and the probability of going private, and that the premiums paid to shareholders in these events were positively significantly related to FCFs. However, despite the academic studies, the concept still lacks unanimous definition by researchers, policy makers and analysts (McEnroe, 1996). Weiss and Yang (2007) define it as cash without restrictions on its use, available for any purpose at any time, but also point out numerous definitions found in literature:

a) Cash provided by operations less capital expenditure;
b) Cash provided by operations less capital expenditure and dividends paid;
c) Net profit plus depreciation less capital expenditure;
d) EBITDA less capital expenditure;
e) EBIT multiplied by 1 minus tax rate, plus depreciation and amortization less changes in operating working capital and less capital expenditure;

Weiss and Yang (2007) provide an informative comparison table (see Table 1.4) on eight different free cash amounts achieved under various definitions, ranging from 21,000 USD to 85,000 USD for the same data set. The authors point out four different starting points for FCF calculation: earnings before interest, tax and depreciation, unleveraged cash flow, unleveraged cash flow provided by operations and leveraged cash flow provided by operations. Furthermore, under each category, different treatment of dividends is illustrated: dividends are either considered as not deductible in FCF determination, as they are equity distribution, or are perceived as mandatory cash outflows and are deducted for the determination of free cash flow.

In view of the author of this thesis, the above examples are just descriptions for a calculation method, they are not definitions.

Financial analysts view FCF as a measure which his not affected by discretionary choice of accounting methods (Hackel & Livnat, 1995). They have developed a model for an investment strategy based on the FCF/price ratio and claim that it outperforms the E/P models. Copeland et al. (1987) draw attention to the fact that unclear results/earnings may be due to earnings manipulation; FCF could be the main information for the market. FCF should provide information about net cash available for distribution to investors (debt holders and shareholders) after the firm has met its operating needs and paid for investments in new fixed assets and working capital.

Table 1.4. Informative comparison table (in thousands of dollars)

Items	Income statement, capital expendi-ture	Earnings before interest, tax and depreciation		Unleveraged cash flows		Unleveraged cash flows provided by operations		Leveraged cash flows provided by operations	
Variants	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Earnings before tax	100	100		100		100		100	
Less: Tax expense (35%)	(35)			(35)		(35)		(35)	
Net profit before interest	65								
Less: Interest expense	(22)							(22)	
Net profit after interest	43								
Depreciation, amortization	40	40		40		40		40	
Change in asset and liability	18					18		18	
TOTAL		**140**		**105**		**123**		**101**	
Cash flow before capital expenditure & dividend		140	140	105	105	123	123	101	101
Capital expenditure	55	(55)	(55)	(55)	(55)	(55)	(55)	(55)	(55)
Dividend paid	25		(25)		(25)		(25)		(25)
FREE CASH FLOW		**85**	**60**	**50**	**25**	**68**	**43**	**46**	**21**

Source: Weiss and Yang, 2007.

Brown (1996) states that analysis of FCF concept should start from understanding cash flows and that each of the three cash flow categories has a significant impact on a company's short-term and long-term abilities to expand, improve the market position, or survive during economic difficulties. According to him, the objective of operating cash flows is to "maximize current and future profitability" of the company, while financing activities seek a "perfect combination of debt and equity financing", again to maximize current and future profitability (Brown, 1996, pp. 172–173). The purpose of investing activities is to add value through "modification, which creates greater current and future profitability than the marginal cost of investment" (Brown, 1996, p. 173). Consequently, FCF is the cash generated which is available for distribution to the shareholders, without effecting the current level of growth. The proposed calculation is as follows:

Free Cash Flow = Traditional cash flow (OCF – Capital expenditure) + Discretionary capital expenditure + Discretionary cash outflows for non-discretionary purposes

The author points out the need for the commonly accepted definition of the term "discretionary" in order for this analysis to work.

Petty and Rose (2009) propose a statement of Cash Flow Identity to evaluate FCF of the company (see Table 1.5).

Table 1.5. Cash flow identity for 2007 (in dollars)

Cash Flow Identity	**Amount**
Operating cash flows	
Earnings before interests and taxes	80,000
Taxes	(23,800)
Depreciation expense	30,000
Operating cash flow	86,200
Change in gross fixed assets	(14,000)
Change in net working capital (CA – noninterest bearing CL)	(14,100)
Free cash flow	**58,100**
Cash flow to debtholders and shareholders	
Cash flow to debtholders	
Interest expense	10,000
New debt issue	(13,000)
Cash flow to debtholders	23,000
Cash flow to shareholders	
Dividends paid	35,100
New equity raised	0
Cash flow to shareholders	35,100
Cash flow to investors	**58,100**

Source: Petty and Rose (2009).

The authors report that despite the fact that fixed-income investors (debtholders) are much more interested in FCF information than earnings per share, their investigation of DOW30 Firms revealed that only five companies reported FCF and no two of them used the same definition of FCF. Looking at Brown's definition, the author of the thesis wants to point out the inconsistency in the perception of investment cash flows: only investments expanding current operations are assumed. Investments required to keep up the operations (i.e. replacement of old machinery) are not considered in the model.

1.5 The historical development and conceptual basis for the cash flow statement

1.5.1 Theoretical development

The development of cash flow accounting in academic and professional spheres is closely associated with the works of professors Lawson (1978) and Lee (1972). Lawson has stated that his system of cash flow accounting provides an analytical framework for linking past, present and future financial performance. His model was explicitly based on Miller-Modigliani share valuation model, recommending the preparation of multi-period cash flow statements with disclosed disaggregated operating cash flows, corporation tax payments, capital expenditure, and debt and equity financing flows, resulting in the bottom line called shareholder cash flows. The main reasoning for focus on this last line was that the value of a company's equity in an efficient capital market should correspond to the discounted value of future shareholder cash flows. Thus, he recommended that cash flow forecasts for up to 10 years were provided. According to Lawson (1985), cash flow accounting "will become the first accounting system that measures performance on two dimensions – risk and profitability" (p. 99). Lawson also claims that the model is allocation free, as payments and receipts are recorded at points in time at which they are made or received. However, while Lawson's model represented a major attempt to implement the concepts of the valuation theory into a financial accounting framework, Ashton (1976) argued that the model could be

too easily accepted only because it provides more information to the users, not for conceptual correctness.

Table 1.6 provides a detailed overview of Lawson's proposed report format.

Table 1.6. Lawson's framework for total cash flow financial system

Year End		1	2	3	Etc.	Etc.
(1)	Increase or decrease in bank balance or overdraft	+	+	+	+	+
(2)	Net operating cash flows	+	+	+	+	+
(3)	Corporation taxes (2)	-	-	-	-	-
(4)	Capital expenditure (including portfolio investments)	-	-	-	-	-
(5)	(i). Cash grants and (ii). Tax rebates resulting from tax depreciation allowance	+	+	+	+	+
(6)	Long-term debt flows (in/out) including interest payments on debt	+	+	+	+	+
(7)	Tax rebates on debt interest payments	+	+	+	+	+
(8)	External equity finance	+	+	+	+	+
(9)	Sales of surplus assets	+	+	+	+	+
(10)	Tax rebates on existing assets and losses brought forward	+	+	+	+	+
(11)	Distributable equity cash-flows	$D_1(1\text{-}d)$	$D_2(1\text{-}d)$	$D_3(1\text{-}d)$	Etc.	Etc.
(12)	Less external equity finance	E_1	E_2	E_3	Etc.	Etc.
(13)	Shareholders' cash flow stream	$D_1(1\text{-}d) - E_1$	$D_2(1\text{-}d) - E_2$	$D_3(1\text{-}d) - E_3$	Etc. Etc.	Etc. Etc.
Operating cash flow statement (subheading (2))						
Year end		1	2	3	Etc.	Etc.
(i)	Sales receipts	+	+	+	+	+
(ii)	Materials	-	-	-	-	-
(iii)	Labour	-	-	-	-	-
(iv)	Works overhead	-	-	-	-	-
(v)	Administrative overhead	-	-	-	-	-
(vi)	Selling overhead	-	-	-	-	-
	Transfer to (2) above	+	+	+	+	+

Source: modified from Ashton, 1976.

As can be seen from the table above, the two proposed sections of cash flow statement are similar to the content of the conventional balance sheet and income statement: the top-half representing the balance sheet and bottom-half representing the income statement.

Lee's proposal was less tied to Miller-Modigliani theory, but was still based on the idea that the main purpose of financial statements is providing "relevant and useful information for purposes of helping investor to predict (a) future dividends and other benefits receivable by him from the company, (b) its future survival, maintenance, and expansion, (c) the degree of risk and uncertainty and connected with his existing and potential investment (Lee, 1972, p. 28). Lee's proposal for the cash flow statement was based on the discussion on the relationship between cash flow accounting and discounted cash flow valuation methods, and even though he also suggested incorporating both the actual and forecasted flows, the main emphasis was on the "net distributable flow", which was equal to the opening balance, plus measures of the operational, exceptional, financial, capital and taxation transaction cash flows. Lee has proposed that the cash flow reporting framework attempts to link cash flow

reporting and net realizable value accounting (NRVA). He argues that there is a special connection between them because changes in the net realizable value of non-cash assets may be regarded as "unrealized cash flows" of varying degrees of implementability (readily-realisable cash flows, such as changes in the value of trade debtors and non-readily-realisable flows, such as changes in the value of work-in-progress or plant and machinery) (Lee, 1981). Also, under Lee's system, the users would still receive conventional historical cost accounting data, but its role in reports would be limited to authenticating management stewardship (Ashton, 1976). Lee (1981) has stressed that cash flow reporting avoids "dubious accounting allocations and thus, unlike periodic income measurements, cash flows provide relatively unambiguous measures of entity financial performance" (Lee, 1981, p. 72), thus justifying the proposed cash flow statement.

In Table 1.7 a detailed overview of Lee's proposed report format is provided.

Table 1.7. Statement of total cash flows of company

Cash Flows	**1967**		**1968**		**1969**		**1970**		**1971**		**Total**	
	F	**A**	**F**	**A**	**F**	**A**	**F**	**A**	**F**	**A**	**F**	**A**
Bank and cash balances brought forward	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
Operational transactions flow	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
Exceptional transactions flow	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
Financial transactions flow	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
Capital transactions flow	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
Taxation transactions flow	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
Net distributable flow	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
Interests and dividends	-	-	-	-	-	-	-	-	-	-	-	-
Undistributed bank and cash balances	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-

Source: modified from Ashton, 1976.

Both those cash flow reporting proposals were most radical in proposing to integrate cash flow forecast information. However, as noted by Ashton (1976) despite a considerable effort by both authors to provide guidelines for the preparation of such information, the reliability of forecast data "beyond immediate short-term is likely to be low", with resulting problems for inclusion of such data into company financial reports (p. 75). A major difference between those proposals was in the approach to the schemes of financial reporting: Lee favoured a series of interlocking cash flow statements, while Lawson favoured one main statement; in views on historic cost accounts: Lawson favouring its abolition, Lee favouring retention for stewardship purposes. Lawson has also suggested that cash outflows are to be divided between replacement and growth expenditure (Lawson, 1978), while Lee's similar suggestion could be interpreted from separation of investment flows and operating flows (Lee, 1981). Already at this time, discussion about the system of classification had started. Lee (1972) defined "capital flows" as "cash movements resulting from the purchase and sale of profit contributing resources by the company, including land, buildings, plant, equipment, investments and sums expended in the area of research and development (Lee, 1972, p. 31), but did not specify the time frame of profit contribution (Rutherford, 1982).

Egginton (1984, 1985) provided a critical analysis of Lee's proposals and suggested that an allocation-free approach to financial reporting may be possible within the context of cash flow statements. He also objects Lee's idea of "unrealised cash flows", arguing that net realisable value is neither cash nor flow, so it would be dangerous to call realisable profit a measure of total cash flow; thus, profit should not be displaced from "it's central role as a measure of business performance in corporate reports" (Egginton, 1984, p. 99). In response to Eggington's (1984) critique, Lee argued that the proponents of cash flow see liquidity assessment as a "critical aspect of examining entity performance in the sense that cash flow and not profit is the end result of entity activity. Profit is an abstraction; cash is a physical resource" and that adaptability and command over resources depends on cash flow availability (Lee, 1985, p. 93; Lee, 1990). Further, Egginton (1985) also draws attention to Lawson's and Lee's proposals of inclusion of net realisable values (NRVs) into reporting, noting that disclosure of past market data would not bring any new information, while forecasted one is judgemental from preparers' point of view. Eggington (1984) is also the first to note that cash flow reporting is still subject to allocation, like accrual reporting, at least to classificatory allocations.

Ijiri's (1978) work provides extension of Lawson and Lee on the cash flow statement potential, which argue that if "an objective of financial statements is to provide information useful to investors and creditors for predicting, comparing and evaluating potential cash flows to them in terms of amount, time, and uncertainty then well-classified data on the past cash flows of the firm seems to be more directly relevant to this objective than data on assets and liabilities of the firm" (Ijiri, 1978, p. 332). It is consistent with Sorter's (1969) questioning of the dominance of valuation approaches in the financial accounting theory and their influence on cash flow potential of the firm. The main idea of Ijiri's system was the identity of investment cash flows and financing cash flows where the former is split into two components: investments minus recovery and the latter is spilt into financing less repayment. Ijiri used the concept of "constructive cash flows", so that the cash flow recovery measure amounted to working capital from operations plus proceeds from fixed asset sales plus net decrease in current assets. In the ideal situation, Ijiri has envisioned that his system would be based on disaggregating total investment cash flows in terms of individual projects and disaggregating total financing flows as they relate to the individual loans and equity of the firm, which would enable to calculate cash recovery rates for each project and past recovery rates would "aid the performance evaluation and projection of cash flows to the future" (Ijiri, 1978, p. 338) and provide an advantage of "bridging the gap between investment decisions and performance evaluation (Ijiri, 1978, p. 340). However, the author has himself recognised that practical implementation would be difficult and time consuming, but the efforts toward it should be encouraged. Furthermore, Ijiri has recognised that "cash flow patterns in the future may be different from those indicated by the past cash flow data, but the purpose of the cash flow statement is not to present such projections, but to provide information useful for predicting, comparing and evaluating potential cash flows" (Ijiri, 1978, p. 341). Lee & Stark (1987) have challenged Ijiri's definition of cash recovery rates as suitable for computing internal rates of return for projects' performance evaluation.

Rutherford (1982) raised a further issue of the so called "distributional allocations", questioning the ability of cash flow reports to provide unambiguous classification of cash flows, for example between different business segments or between capital and revenue when there is economic interaction between such accounting categories. Lee (1982) refutes those arguments by stating that time-period allocations are completely excluded from cash flow reporting, entity allocations are eliminated if reporting entities are treated as autonomous units and classification allocations "should not be made if report users are left to judge fully explained and disclosed data of a material nature" (Lee, 1982, p. 351).

Rutherford (1982) has pointed out another unresolved issue in the proposed cash flow statements, mostly relating to disaggregation and classification. The process of how cash resources are separated from other monetary assets was not clear and led to arbitrary distinctions between cash and near-cash items. Another issue of classification and disclosure was the treatment of a transaction which, in the normal course would have involved cash, but in fact has been structured to by-pass cash, for example purchase of non-monetary assets for shares and netting accounts receivables and payables (Rutherford, 1982). Ijiri (1978) has proposed to call such transactions "constructive cash flows" and report as if they were actual cash flows, while Lee (1972) suggested that transactions of such kind should be listed elsewhere on accounts.

No further theoretical debate took place on the issue.

The proceeding review on debates on the role of the cash flow statement in financial reporting indicates, how early proposals focusing on provision of past and forecasted data have moved towards provision of past data incorporating current market value data. Although the early studies by Lee (1972) and Lawson (1978) provided possible approaches to the integration of the cash flow statement and current value accounting, there is still a further need for the theoretical justification for such an approach in financial accounting, particularly in view of investor assessments of corporate financial performance and cash flow potential.

It should be noted, that after that time there have been no more theoretical developments in the conceptualization of cash flow statement. The focus of research has shifted to the practical implementation of the standard and empirical testing of information usefulness for various user groups.

1.5.2 Institutional development and standards for cash flows statement

Alongside the academic debate, accounting regulating bodies of various countries have started processes of formalising cash flow reporting, resulting in the mandatory statement of cash flow in the corporate financial reports.

United States. Responding to the criticism against APB No. 19, the FASB concluded in Statement of Financial Concepts Nos. 1 and 5 that information involving cash receipts and payments is important to the accounting information user, and subsequently issued SFAS 95 Statement of Cash Flows, which superseded APB No. 19 (McEnroe, 1996). In 1987, SFAS 95 was issued and it required entries to present a cash flow statement for the accounting period, together with the income statement and balance sheet (Belkaoui, 1992). The cash flow statement was an improvement over the funds statement as a format to follow was provided, and there was a focus on actual cash and cash equivalents, as opposed to loosely defined funds (Mahoney et al., 1988). The United States and New Zealand were two of the first countries to introduce a standard on cash flow disclosure. Although the standard was issued primarily to eliminate the ambiguities of APB No. 19, it also developed as a result of the FASB completing their CF and issuing the Statement of Financial Accounting Concepts (SFAC) No. 5 Recognition and Measurement in Financial Statements of Business Enterprises. SFAC No. 5 saw the inclusion of cash flow statements as an integral part of a company's annual accounts (Donleavy, 1992). SFAS 95 clarified the definition of cash flows and purpose of the standard, requiring the classification of cash receipts and payments according to their primary source: from operating, investing or financing activities. The purpose of the standard was to provide relevant information about cash receipts and payments during the period in order for users to be able to:

> *"…assess the enterprises ability to generate positive future net cash flows...meet its obligations...assess the reasons for the differences between net income and associated cash receipts and payments...and assess the effects on an enterprise's financial position of both its cash and non-cash investing and financing transactions during the period."*
>
> *(FASB, 1987, paras. 4–6)*

After numerous discussions, the FASB has developed SFAS 95 with the main objective of providing users with information to better estimate future cash flows, in order to determine the company's ability to meet its future obligations. The FASB secondary objective was that the users would get informational benefits from reporting actual cash receipts and payments, in addition to a reconciliation of operating profits to cash flows, which could be useful in assessing the persistence of historical earnings. This information could help users to measure the impact of accrual accounting on the underlying profitability and future cash generating capacity of the company. The key stages of cash flow reporting are presented in Table 1.8.

Table 1.8. Key stages in the development of cash flow reporting in the United States

Date	Event
1860s	Some companies start using various forms of funds flow statement.
1950s	Widespread use of funds flow statement by US companies, but no single formal followed.
1963	Issue of Opinion No. 3 The statement of Source and Application of Funds by the APB. Funds flow statement disclosure is encouraged but not mandatory.
1970	Issue of SEC Release No. 117, which required the mandatory disclosure of a funds flow statement for all companies filing accounts.
1971	Issue of Opinion No. 19 Reporting Changes in Financial Position by the APB requiring the disclosure of a Funds flow statement for all companies disclosing both an Income Statement and Balance Sheet as part of their annual accounts.
1984	Issue of SFAC 5 Recognition and Measurement in Financial Statements of Business Enterprises, which saw the inclusion of the funds flow statements as an integral part of a company's annual accounts.
1987	Issue of SFAS 95 Statement of Cash Flows, which superseded APB No. 19, effective for all companies with financial years ending on or after July 1988.

Source: compiled by the author.

In view of this objective, standard setters have explicitly declared their preference for the direct disclosure of cash flows arising from operating activities through the presentation of gross cash receipts and payments on the face of the cash flow statement. This approach is commonly known as the direct method of cash flow presentation. SEC has also supported this approach as being more direct and understandable to the users and more in line with the objective of actual cash flow disclosure (Thomas, 1982). One of the most fiercely debated topics in cash flow reporting, has arisen from the standard setters' preference for this approach over the indirect method, which was supported avidly by report preparers.

Another much discussed issue in SFAS 95 is the classification of dividends paid as financing activities whilst dividends received, interests received and interests paid were all classified as operating activities. After long deliberations, the final decision was taken by voting, with 4 voting for operating activity classification and 3 against.

Disclosing "cash flow per share" was prohibited in the conclusion of the standard, based on the board's concern that this could be misinterpreted by shareholders to be an alternative measure of performance to earnings per share (FASB, 1987, paras. 122–125).

Once the United States had started the movement of cash flow statement, other countries soon followed suit. Since mid-1980s, most countries have followed and also introduced mandatory cash flow reporting: Canada in 1985, New Zealand in 1987, United Kingdom and Australia in 1991. It is also worth noting that the cash flow statement has been introduced

much later than the balance sheet or income statement, thus is still considered to be a "young" statement.

United Kingdom. The development of cash flow reporting in the UK has followed a very similar pattern to the United States. However, it is worth noting that UK firms were not so eager to use the funds flow statement. Davies et al. (1994) have provided an overview of the historical development of cash flow reporting in the UK prior to FRS 1 and noted that there is little evidence of the use of funds statements by UK firms as compared to the American counterparts. Rosen and Don (1969) note that some UK firms from as early as 1862 had used a form of funds flow statement. By the 1970's, however, surveys of published reports by the Institute of Chartered Accountants in England and Wales (ICAEW) show rapid acceptance and common use of the funds flow statement by UK companies. While only 13% of firms reported a funds flow statement in 1970, this had risen to 100% by 1979 (Rutherford, 2007, p. 82). The driving cause for the adoption of funds flow statements was the issue of ED 13 Statements of Source and Application of Funds in April 1974 from the recently formed Accounting Standards Steering Committee (ASSC). ED 13 offered companies guidance on how to disclose a funds flow statement and received widespread support that resulted in the issuance of SSAP 10 Statements of Source and Application of Funds in July 1975. SSAP 10 was developed for all companies with turnover or gross income greater than £25,000 per annum and stated that companies should adopt it if their accounts were to provide a "true and fair view of financial position and profit or loss" (ICAEW, 1985, p. 219; para. 9). Companies were pressurised by the ASSC to adopt SSAP 10, since according to the Companies Act (1967), failing to adopt SSAP 10 could lead to a qualified audit opinion. The key stages of cash flow reporting are presented in Table 1.9.

Table 1.9. Key stages in the development of cash flow reporting in the United Kingdom

Date	Event
1974	Issue of ED 13: Statements of Source and Application of Funds for comment.
1975	Issue of SSAP10 effective for fiscal years ending on or after 1 January 1976.
1978	Part 4 is added to SSAP 10 highlighting the alignment of the standard with IAS 7 Statement of Changes in Financial Position.
1990	Issue of ED 54: Cash flow statements issued by the ASC for comment.
1991	Issue of Financial Reporting Standard (FRS) 1: Cash Flow Statements by the Accounting Standards Board (ASB) to supersede SSAP 10 effective for fiscal years ending on or after 23 March 1992.
1994	Issue of Financial Reporting Exposure Draft (FRED) 10: Revision of FRS 1 Cash Flow Statements for comment.
1996	Issue of FRS 1 (Revised 1996): Cash Flow Statements by the ASB effective for fiscal years ending on or after 23 March 1997.
2002	Issue of Regulation (EC) No 1606/2002 of the European Parliament and of the Council requires that the consolidated accounts of all listed European firms be prepared in accordance with IFRSs.
2005	The application of IFRSs including IAS 7 becomes mandatory for all consolidated financial statements of listed UK companies with annual reporting periods on or after this date.

Source: FRS 1 (1991); Davies et al. (1994); Cox and Pedersen (2002); Rutherford (2007).

However, shortly afterwards SSAP 10 received similar criticisms to those voiced against the US equivalent, namely APB No. 19. Davies (1992) notes that one of the standard's main weaknesses was its vague objective, which portrayed the funds flow statement as a reconciliation of the opening balance sheet and current year profits with the closing balance sheet. Consequently, from the standard's objective it was not clear whether it would provide any new information to financial statement users. Moreover, there appeared comments that

the objective of SSAP 10 seems to interpret the funds flow statement as a "mere reclassification" of information already available to the users, when it stated that:

> *"The funds statement is in no way a replacement for the profit and loss account and Balance Sheet although the information which it contains is a selection, reclassification and summarisation of information contained in those two statements. The objective of such a statement is to show the manner in which the operations of a company have been financed and in which its financial resources have been used…"*
>
> *(ICAEW, 1985, p. 218; para. 2)*

Similarly to the US, the critics have noted the inadequate definition of "funds", and the lack of guidance to encourage and enforce a consistent format of disclosure. There was a missing emphasis on "cash" flow in the funds flow statement, as stated in the appendix of general guidance to SSAP 10. For example, a company issuing shares in return for an interest in a subsidiary company was recommended to disclose the transaction as both a "source" and "application" of funds, even though there was no impact on the firm's cash resources (ICAEW, 1985, p. 224; example 3).

The lack of guidance provided by SSAP, along with vague objectives and poor definition of "funds" pressured ASC for continuation of reports. It resulted in the issue of ED 54: Cash Flow Statements in July 1990. After receiving the comments on ED 54, the newly formed Accounting Standards Board (ASB) issued FRS 1 Cash Flow Statements 14 months later. FRS 1 was clearly influenced by SFAS 95, issued in the US four years earlier. From the inception of FRS 1, the ASB made it clear that they had considered the criticisms levelled against SSAP 10 and there was, accordingly, far less ambiguity regarding the objective of FRS 1, which clearly stated:

> *"The objective of the FRS is to require reporting entities…to report on a standard basis their cash generation and cash absorption for a period."*
>
> *(FRS 1, 1991, para. 1)*

From this definition, it looks that the ASB had addressed two notable criticisms of SSAP 10. FRS 1 required reporting on a "standard basis", thereby, eliminating alternative methods of disclosure, which had previously reduced comparability between firms. Moreover, the standard had moved away from reporting "funds" flow and focussed on disclosing the "cash" generated and absorbed during the period.

The major difference of the UK standard was that the ASB achieved their objective by mandating a very rigid format for the cash flow statement under five major categories: "operating activities", "returns on investments and servicing of finance", "taxation", "investing activities" and "financing". This strict and more detailed categorisation of cash flow has helped to increase comparability between enterprises, thereby, resolving one of the major problems of SSAP 10. Moreover, the scope of the standard was changed from the simple £25,000 threshold, and made more companies exempt as compared to SSAP 10. Changing the scope was largely validated by the argument that the cost of disclosing a cash flow statement would likely outweigh the benefits of reporting cash flow information for certain entities (FRS 1, 1991, para. 58). Taking into consideration the mistakes made by the FASB, UK standard setters also provided a clear definition of "cash flow", which helped to increase the comparability of cash flow statements between companies. The standard defined "Cash flow" as an increase or decrease in "cash" or "cash equivalents", with no reference made to "funds" or working capital, which were deemed as too vague concepts and open for various interpretations. FRS 1 defined "Cash" as cash on hand and demand deposits while it defined "cash equivalents" in same way as SFAS 95, as being "short-term highly liquid investments" convertible into cash without notice and maturing within three

months from the date of issuance, such as treasury bills. These changes were a significant improvement on the loose definition of "net liquid funds" provided by SSAP 10 and, consequently, they helped to increase the comparability between cash flow statements.

A further change resulting from the move to FRS 1 attended the disclosure of operating cash flows. FRS 1 allowed operating cash flows to be reported on a net or gross basis on the face of the cash flow statement along with a reconciliation of operating profit to cash flow to be shown as part of the notes to the accounts (FRS 1, 1991, paras.16–17). It appears that the ASB were not such proponents of direct methods of cash flow reporting as the FASB when they presented SFAS 95. The ASB put forward a very balanced debate on the benefits of disclosing operating cash flows using either the direct or indirect method (FRS 1, 1991, paras. 69–72). Consequently, FRS 1 noted that the direct method may provide useful information for assessing future cash flows but the indirect method may as well be useful to assess the quality and persistence of earnings. On the other hand, it is worth noting that four out of six of the illustrative examples in the standard's appendix used the direct method, while the ASB only encouraged the use of this approach when the enterprise believed the benefits of adopting the direct method would outweigh the associated costs of obtaining the required information. In either case, the ASB were specific that all firms adopting FRS 1 should disclose a reconciliation of operating profit to cash flow as part of the notes to the cash flow statement.

In order to obtain some feedback on the standard, ASB issued Financial Reporting Exposure Draft (FRED) 10: Revision of FRS 1 Cash Flow Statements for comment (FRS 1, 1996) and considering the responses received, they issued a new and improved standard for cash flow reporting, FRS 1 (revised 1996): Cash Flow Statements. The major change was relating to the definition of "cash flows", as many commenters to the draft had expressed concern for including "cash equivalents" into the "cash flow", because from the economic and managerial point of view, investments with a maturity of less than three months are not really cash. Therefore, standard setters created a new category for such "cash equivalents" and provided a heading of "management of liquid resources" (FRS 1, 1996, appendices 3.6– 3.8). In addition, it is worth noting that at this stage UK standard setters have further differed from the US counterparts, and have proposed even more levels of cash flow classification: moving from five to already eight categories.

FRS 1 (Revised 1996) now split cash flows from investing activities into "capital expenditure and financial investment" and "acquisitions and disposals", and created two new categories, "equity dividends paid" and the aforementioned "management of liquid resources".

According to the UK FRS 1 (revised in 1996), the cash flow statement should contain the following headings:

Operating activities. Cash flows from operating activities are cash flows produced from normal business activities. Companies could use either the direct or the indirect method for presentation. In addition, ASB did not consider the reconciliation between operating profits and net operating cash flows as part of the statement, and it should have been presented under a different heading, if done so. However, ASB required all companies to disclose this reconciliation as a note, regardless whether they used the direct or indirect method for the preparation of the section of operating cash flows.

Return on investment and servicing of finance. Any cash flows relating to financing activities of the companies should be presented under this heading. Interests received and dividends received should be reported here, unless they are a main line of business and are reported under cash flows from operations. Cash outflows in this section mainly result from payment of interests and dividends for non-equity shareholders, such as preferred shareholders.

Taxation. Any tax paid to or received from the relevant tax authority is reported under this heading.

Capital expenditure and financial investment. This heading includes cash flows relating to buying and selling plant assets, other than the ones under "acquisition and disposal". It also includes cash flows from repayment of loans to other entities or sales of debt instruments, other than the ones reported under "acquisition and disposal" or "Management of liquid resources". Loans made by the company and payments made to acquire debt instruments, other than cash equivalents, are reported under this heading.

Acquisitions and disposals. These are cash flows relating to the acquisition and disposal of any business unit, or an investment in any associate, joint venture, or subsidiary undertaking.

Equity dividends paid. This heading contains all dividends paid to equity shareholders.

Management of liquid resources. This heading includes cash flows related to changes in cash equivalent accounts.

Financing. This heading contains cash flows resulting from issuing shares or any other equity investment and bonds. Payments to reacquire the company's shares or redeem the loans are the main sources of cash outflow.

One revision that is more significant was now the mandatory reconciliation of "net debt" to be disclosed either in the cash flow statement or as a separate note to the accounts. This was consistent with the goal to provide more detailed information regarding the "liquidity, solvency and financial adaptability" of the enterprise (FRS 1, 1996, appendix 3.11).

This version of the standard was in power until the adoption of IFRSs in the United Kingdom in 2005. In July 2002, the issue of Regulation (EC) No 1606/2002 of the European Parliament and of the Council required that all listed European firms prepare their consolidated accounts in accordance with the IFRSs for accounting periods commencing on or after 1 January 2005 (Cox and Pendersen, 2002). All the listed companies in the UK were therefore required to undergo a transition from FRS 1 (Revised 1996) to the IFRS equivalent, IAS 7 Cash Flow Statements. PWC (2005) have reported significant differences between the UK GAAP and IFRSs. Defining "cash flows" was the most significant difference between the two standards, a result from the revisions that the ASB had made to the original version of FRS 1 (PWC, 2005). IAS 7 defined "cash flows" as "cash and cash equivalents" whilst the FRS 1 (Revised 1996) had amended their definition to exclude "cash equivalents" which were reported under the separate category of "management of liquid resources". Similarly to SFAS 95, IAS 7 also required cash flows reported under the three distinct categories of "operating", "investing" and "financing" activities as opposed to the eight stipulated under FRS 1 (Revised 1996). Furthermore, IAS 7 did not require a separate reconciliation of "net debt" or provide any exemptions to the application of the standard, thereby extending the scope of cash flow reporting requirements in the UK to many previously exempt firms. Finally, IAS 7 has increased the disclosure requirements for the UK firms reporting foreign exchange differences, presenting these separately in the reconciliation of the opening and closing cash and cash equivalent balances.

Australia. Australian funds and cash flow reporting followed a similar pattern as the US and the UK, with companies providing some form of funds flow statement as part of their annual accounts by the start of the 1970s (Donleavy, 1992). In January 1971, the Institute of Chartered Accountants in Australia (ICAA) initially recommended funds flow reporting by issuing Technical Bulletin F1: The Funds Statement. However, funds flow statements only became widespread after the Australian Associated Stock Exchanges amended their listing rules in 1972 to mandate all public companies file one as part of their annual accounts (Walker & Robinson, 1992). The stages of cash flow reporting are presented in Table 1.10.

Table 1.10. Key stages in the development of cash flow reporting in Australia

Date	Event
1971	Issue of Technical Bulletin F1: The Funds Statement, ICAA recommended but not mandatory for all public firms.
1972	The Australian Associated Stock Exchange requires the inclusion of a funds flow statement in all listed company accounts.
1980	Issue of ED 16: Statement of Sources and Application of Funds by the AARF for comment.
1983	Issue of AAS 12: Statement of Sources and Application of Funds by AARF applicable to all firms.
1985	The Companies and Securities (Miscellaneous Amendments) Bill in the Companies Act and Codes is amended by the NCSC to require all companies to disclose a funds flow statement as part of their annual reports.
1986, June	AAS 12 is approved by the ASRB and issues ASRB 1007: Financial Reporting of Sources and Application of Funds.
1986, July	Issue of ED 37/Release 410: Proposed Amendment to Statement of Accounting Standards AAS 12 and Approved Accounting Standard ASRB 1007 to require the Disclosure of Cash Flow from Operations by the ASRB and AARF.
1990	The ASX proposes that companies should be required to report a cash flow statement rather than a funds flow statement as originally stipulated in their 1972 paper An Issues Paper: Improved Reporting by Listed Companies.
1991, May	Issue of ED 52: Statement of Cash Flows by the AARF for comment.
1991, December	Issue of AASB 1026: Statement of Cash Flows by the AASB requiring all Australian firms to report a Cash Flow Statement as part of a complete set of company financial reports.
1997	AASB 1026 is amended to conform to the requirements of IAS 7: Cash Flow Statements.
2004	Issue of AASB 107: Cash Flow Statements which is the equivalent of IAS 7.
2005	Application date for AASB 107 for annual reporting periods on or after this date.
2006	Issue of ED 151: Australian Additions to, and Deletions from, IFRSs for comment.
2007, April	Issue of AASB Amendment Pronouncement (AP) 2007-4 which amends AASB 107 in response to ED 151 to allow the use of the indirect method of cash flow disclosure as well as allowing dividends paid to be classified as either a financing or operating cash flow.
2007, July	Application date for AASB AP 2007-4 for annual reporting periods on or after this date.
2007, September	Issue of AASB AP 2007-8, which amended the title of AASB 107 from Cash Flow Statements to Statement of Cash Flows.

Source: Yap (1997), AASB 107.

It took almost ten years and numerous exchanges among accounting professionals, the Australian Accounting Research Foundation (AARF), issued Australian Accounting Standard AAS 12: Statement of Sources and Application of Funds. It led to further standardization of funds flow reporting and support for mandatory disclosure (Walker and Robinson, 1994). National Companies and Securities Commission (NCSC) provided further support for the funds statement, when in 1985 it amended its rules and made it mandatory for all companies to disclose a funds statement with the filed annual reports. According to Walker and Robinson (1994), prior to 1985, AARF had developed and issued AASs without any independent regulatory oversight. The regulation of AASs only started once the Accounting Standards Review Board (ASRB) was formed in 1985 with the mandate to review all the standards issued by the AARF (Walker and Robinson, 1994). One of the first standards reviewed and issued by the ASRB was the AAS 12 in 1986 and the subsequently issued ASRB 1007: Financial Reporting of Sources and Application of Funds. Institutional conflicts between

the ASRB and the AARF led to a slower transition from funds flow reporting to cash flow reporting in Australia. SFAS 95 was perceived favourably by the ASRB who were pushing to move away from the funds flow statement and adopt an entirely new method of cash flow reporting. However, the AARF were content to retain the funds flow statement with some modifications. Ultimately, the development of cash flow reporting in the US, and the 1987 Australian stock market crash prompted an increased pressure from analysts and the public for significant reforms in accounting and auditing (Walker and Robinson, 1994). However, reforms were slow as the ASRB and the AARF were still at a deadlock over whether or not to issue a cash flow reporting standard equivalent to SFAS 95. In response to that, Australian Stock Exchange (ASX) intervened again by announcing in October 1990 that if the ASRB would not issue a specific cash flow reporting standard, similar to SFAS 95 in the following two years, it would unilaterally require all listed companies to submit a cash flow statement by June 30, 1992 (Walker & Robinson, 1994). Responding to the ASX and the growing demand for cash flow information, the AARF presented their ED 52 Statement of Cash Flows in May 1991 and received overwhelming approvals from 96% of the respondents (Walker and Robinson, 1994). In December 1991, the Australian Accounting Standards Board (AASB) issued AASB 1026 Statement of Cash flows which became effective by the ASX deadline: June 30, 1992. SFAS 95 had a significant influence on the AASB 1026, which also required cash flow disclosure under three headings: “operating”, “investing” and “financing”. Similarities could be found also in the definition of “cash equivalents”, as “highly liquid investments which are readily convertible to cash on hand at the investors’ option and which company uses in its cash management function on a daily basis and borrowings which are integral to cash management function and which are not subject to term “facility” (AASB 1026, 191, para. 10).

In disclosing operating cash flows there appeared one significant difference between AASB 1026 and SFAS 95. According to AASB 1026 (1991) paras. 38–39, an entity complying with the standard would be required to present their operating cash flows using the direct method, with a note to the accounts reconciling operating profits and cash flows. Australia did not allow firms to report operating cash flows using the indirect method, although this was already used and very popular in the US and the UK This treatment made Australia the only country allowing only the direct method of reporting cash flows from operations and it has served as a benchmark in many empirical studies of cash flow statement formats and information content.

In March 1997, Australia harmonized its cash flow reporting requirements with IAS 7. The AASB has issued ED 77, which was followed by the issue of a revised AASB 1026 in October 1997. Consequently, Australia was far more prepared for the transition to the IFRSs than the UK as there were only minor notable differences between AASB 1026 and IAS 7, which was the disclosure of operating cash flows (Deloitte, 2005). Although IAS 7 encouraged the use of the direct method, the standard provided a choice between either the direct or the indirect method, as long as companies consistently applied the chosen approach from one period to the next. AASB 1026, on the other hand, only permitted companies to use the direct method of disclosing operating cash flows and, like SFAS 95, required a reconciliation of operating profit to cash flow as part of the notes to the accounts. Classification of dividends paid was another difference between the two standards. Under IAS 7, dividends paid could be classified under either operating or financing activities, while AASB 1026 explicitly required their disclosure as part of the cash flows from financing activities (Deloitte, 2005).

The AASB had required operating cash flow disclosures under the direct method only. Therefore, when the IFRSs were adopted in Australia, AASB issued their own standard on cash flow reporting in the form of AASB 107 Cash Flow Statements on July 15, 2004, and maintained their historical position. AASB 107 was equivalent to IAS 7 in all material respects

(even headings), except that it did not allow firms to disclose operating cash flows using the indirect method. In April 2007, however, in order to align themselves more fully with the IFRSs, the AASB amended AASB 107 to permit Australian firms to choose between the two approaches. AASB AP 2007-4 amended AASB 107 in response to ED 151, and allowed the use of the indirect method, in addition to requiring the classification of dividends paid as either financing or operating cash flows.

IASC/IASB. Regulation of funds flow reporting in the US and the UK prompted the newly formed IASC to issue ED 7 on the subject of funds reporting in June 1976. At that time, both the preparers and users of financial statements had already become accustomed to the funds flow statement, so it was unsurprising that comment letters received back for ED 7 showed strong support for the new standard (Camfferman & Zeff, 2007). In October 1977, the IASC issued IAS 7 Statement of Changes in Financial Position, closely following the proposed guidelines laid down by ED 7. Unsurprisingly, similar problems as in the US and the UK occurred with the adoption of IAS 7. The definition of "funds" was too vague, which was not surprising, as it resulted as a compromise among the IASC members from the concepts of "cash", "working capital" and "all financial resources". (Taylor, 1987). The key stages of cash flow reporting are presented in Table 1.11.

Table 1.11. Key stages in the development of cash flow reporting by the IASC/IASB

Date	Event
1976	Issue of ED 7 *Statement of Source and Application of Funds* by the IASC for comment.
1977	Issue of IAS 7 *Statement of Changes in Financial Position* by the IASC.
1991	Issue of ED E36 *Cash Flow Statements* by the IASC for comment.
1992	Issue of IAS 7 (1992) *Cash Flow Statements* by the IASC effective for fiscal years beginning on or after 1 January 1994.
2007	IASB renames IAS 7 (1992) Cash Flow Statements to Statement of Cash Flows as a consequential amendment resulting from revisions to IAS 1.
2009	IAS 7 amended by Annual Improvements to IFRSs 2009 with respect to expenditures that do not result in a recognised asset effective for fiscal years beginning on or after 1 January 2010.

Source: Deloitte (2010), 2018 changes.

Similar to the FASB and the ASB, the IASC realised it needed to address the problems associated with funds flow reporting and, therefore, they issued ED 36: Cash Flow Statements for public comment in July 1991. Seventeen months later, considering the received comment to ED 36, the IASC issued IAS 7 Cash Flow Statements, effective for all financial years beginning on or after 1 January 1994. As the statement been issued later than its US and UK counterparts, it had been influenced by them.

It should be noted that SFAS 95 rather than FRS 1, was the dominant influence in the development of IAS 7. It has led to both standards employing a very similar definition and classification of cash flows. IAS 7 referred to "cash flows" in their objective as incorporating all inflows and outflows of "cash and cash equivalents" and did not exclude "cash equivalents" as done by FRS 1 (Revised 1996). "Cash equivalents" received the same definition as SFAS 95 and included "short-term, highly liquid investments" (IASC, 1992, para. 6). Classification of cash flows using the U.S. method of three distinct headings under operating, investing, and financing activities, rather than the eight required by FRS 1 (Revised 1996), was largely supported by comments received back from ED 36 (Donleavy, 1992, page 155). Incorporating this recommendation into the new standard provided IAS 7 with a striking resemblance to SFAS 95.

However, there were some notable differences between these two standards concerning the disclosure of operating cash flows, interests and dividends. Comments received on ED 36

were varied on the method of reporting cash flows from operations. Only one third of respondents to ED 36 favoured the mandatory use of the direct method, with more than half the respondents preferring to allow a choice between either the direct or the indirect method (Donleavy, 1992). Consequently, IAS 7, has encouraged the use of the direct method while, at the same time, providing firms with the choice of using either the direct or the indirect method. Differing from the requirements of SFAS 95, however, the standard did not require firms to show a reconciliation between operating profit and cash flow if they chose the direct method. Mandating firms to prepare this reconciliation was seen by the IASC as a "disincentive" to adopting the direct method (Donleavy, 1992).

The other significant differences between SFAS 95 and IAS 7 concerned the classification of interests and dividends. IAS 7, para. 31, permitted interests and dividends to be classified either under "operating", "investing" or "financing" activities, so long as the chosen approach was applied consistently from one period to the next (IASB, 2016). The FASB, however, argued that operating cash flows should reflect the "cash effects of transactions...that enter into the determination of net income" (FASB, 1987, para. 88). Thus, SFAS 95 only permitted the classification of interests received and paid and dividends received under "operating" activities, while classifying dividends paid as "financing" activities. Subsequent to the issuance of IAS 7 in December 1992, there were largely minor amendments to the original standard. In September 2007, the IASB renamed IAS 7 Cash Flow Statements to Statement of Cash Flows.

FASB and IASB convergence project. SFAS 95 and the IASB equivalent, IAS 7, are very similar in a number of areas largely due to the significant influence the U.S. standard setters have had on the IASB. In September 2002, subsequent to the issuance of their respective standards on cash flow reporting, both the FASB and the IASB entered into the Norwalk Agreement, and committed towards the convergence of the US GAAP and IFRSs. As part of the convergence process, in October 2008, the IASB and the FASB issued a discussion paper for comments on their preliminary views of financial statement preparation (IASB, 2008). Included in this paper, section 3.70-3.83 provided a detailed proposal for a new standard to regulate the disclosure of cash flows.

Besides recommending that "cash flows" should be defined as movements in "cash" only, and not "cash equivalents" (IASB, 2008, para. 3.72), it was no surprise that once again the major area of debate concerned the disclosure of operating cash flows. The discussion paper's proposal to mandate the direct method of reporting operating cash flows, once again, brought up the debate of whether or not to provide a choice of using either the direct or the indirect method (IASB, 2008, paras. 3.75–3.83). Furthermore, the paper proposes a line-by-line reconciliation between the cash flow statement and the statement of comprehensive income, as opposed to simply reconciling operating income and cash flows, as currently required (IASB, 2008, para. 3.80).

Improving the level of understanding concerning the relationship between line items on the cash flow statement, the statement of comprehensive income, and financial position, is a key motive behind the proposed changes to cash flow reporting. The paper argued that the indirect method has a major deficiency due to the lack of disclosure of any of the major operating cash flow components of cash receipts or payments for the period. Operating cash flows reported using the indirect method were likened to reporting the profit or loss for the period by adjusting the annual change in shareholders' equity for the effects of dividend payments and share movements. While such an approach would arrive at the total profit or loss, this method would not reveal a vast amount of useful information for the users of the financial statements (IASB, 2008, para. 3.77).

In contrast, the discussion paper argues that disclosing operating cash flows using the direct method more consistently achieves the objectives of financial statement presentation.

Examples of such objectives include “cohesiveness”, “enabling users to assess the timing, amount and uncertainty of future operating cash flows”, and “providing useful information regarding the entity’s liquidity and financial flexibility”. The IASB and the FASB considered the assertions regarding the advantages of the indirect method inadequate compared to the benefits of reporting actual operating cash receipts and payments under a directly prepared cash flow statement. Concluding the discussion paper, the FASB and the IASB expressed their view that while there are arguments concerning the costs and benefits of implementing systems to report direct cash flows, these costs would most likely be a one-off outlay.

229 public comments were received back from the discussion paper as shown by the FASB (2009). Sampling the comment letters from the big four accounting firms provides interesting insight into the view of the accounting profession regarding the proposed changes to cash flow reporting. Deloitte, KMPG and EY all highlighted the need for the IASB and the FASB to further investigate whether the benefits of reporting direct cash flows would indeed outweigh the costs of changing and implementing financial reporting systems to capture the required information (FASB, 2009, comment letters 63, 114 and 99). PWC, on the other hand, showed strong support for mandating the direct method as proposed in the discussion paper. They did, however, highlight that the level of detail proposed by the discussion paper may be excessive (FASB, 2009, comment letters 172).

In response to the comment letters, a rough version of the FASB ED on Financial Statement Presentation issued on July 1, 2010 revealed very little change from the initial discussion paper. With the exception of requiring a less detailed reconciliation to support the direct cash flow statement, the FASB and the IASB had made no notable changes. The proposed mandatory use of the direct method was still clearly evident in the ED (FASB, 2010, paras. 168–199). Changing information systems or indirectly adjusting the statement of comprehensive income and financial position for accruals and other non-cash transactions were the two recommended methods of obtaining the necessary information to disclose direct cash flows.

1.6 Summary and conclusions

Cash based flow reporting is, historically, the oldest form of accounting for transactions, dating back to medieval times. However, it was not until 1963 that the APB in the US issued the first standard to govern the reporting of cash flows in the form of Opinion No. 3 *“The Statement of Source and Application of Funds”*. Australia and the UK followed the trend around ten years later and issued *Technical Bulletin F1: The Funds Statement* in 1971 and *SSAP 10: Statements of Source and Application of Funds* in 1975 respectively. Since their inception, similar problems have affected the various funds flow standards, with the main issues concerning the very vague definition of “funds” and the lack of clear guidance in their application. Addressing these problems, the standard setters in the US, the UK and Australia all issued superseding “cash” flow disclosure requirements towards the end of the 1980’s and start of the 1990’s. America, in the form of SFAS 95, having led the way, heavily influenced the standards on cash flow reporting subsequently issued around the world.

In the 1990s, the US, Canada, the UK and Australia, known as the “G4”, committed to the harmonization of accounting standards, along with the IASC, based on their similar conceptual frameworks (Street & Shaughnessy, 1998). Towards the end of the 20th century cash flow reporting was an area in which the G4 and the IASC had gained consensus, resulting in only minor notable differences between the various standards. More recently, with the growing acceptance and adoption of the IFRSs around the world, the UK and Australia have both been reporting their cash flows according to IAS 7. Australia, however, restricted the choice of disclosing operating cash flows to the direct method until the issue of *AASB*

Amendment Pronouncement (AP) 2007-4, which amended AASB 107, thereby allowing the use of the indirect method of disclosure of cash flows.

The disclosure of operating cash flows is one area in cash flow reporting that has been the subject of fierce debate by standard setters, preparers and users of financial reports. Central to this debate is whether to allow or remove the choice of disclosing operating cash flows "indirectly" or "directly". Indirect reporting requires a reconciliation between profits and net operating cash flow by adjusting for the effects of accrual accounting and other non-cash transactions. The direct method, however, requires the disclosure of the actual gross cash receipts and payments on the face of the cash flow statement, supported with a supplemental "indirect" reconciliation. As part of the continuing harmonization of the US standards with the IFRSs, both the FASB and the IASB have proposed to settle the debate finally by removing the option to disclose operating cash flows using the indirect method and mandate the direct method for all companies. Comments received back in response to the ED, entreated the FASB and the IASB to reconsider whether the benefits of disclosing operating cash flows "directly" would exceed the associated costs of capturing and recording the requisite information. Establishing, therefore, which approach provides more useful information is not easily resolved.

The issue of the classification of activities has not gained so much attention from the standard setters, preparers and users of financial reports. The debate has mainly focused on classification options for interest and dividend income and payment. SFAS 95 only permitted the classification of interests received and paid and dividends received under "operating" activities, while classifying dividends paid as "financing" activities; while IAS 7 permitted interests and dividends to be classified under either "operating", "investing" or "financing" activities, so long as the chosen approach was applied consistently from one period to the next. However, a more detailed investigation of options available does show that comparability of repots, as one of the main goals of the IASB and the FASB, has not been achieved.

Both the IASB and the FASB claim that the assessment of the liquidity position of the company is facilitated by the preparation of cash flow statements, but they do not deal with the specific issue of current value accounting and the presentation of the cash flow statement, which has emerged in accounting literature.

2 Cash flow statement: content and comparability issues

The usefulness of financial information to the users is reflected by comparability, because financial information about a company is more useful if it can be compared to similar information from other companies or to similar information from the company over different periods. Niayma and Silva (2001) state that comparability is the ability of users to compare the reports of different companies and different time periods, while Barth (2013) defined it as a qualitative characteristic that enables users to identify and understand differences and similarities among things. The cash flow statement is considered to be especially useful for inter-company comparisons or over time comparison, as the effects of different accounting treatments for the same transaction are supposed to be eliminated. The internalization of capital markets has created a need for harmonized set of financial reports, as it no longer expected that the users would be fluent in different accounting practices used in each country.

2.1 Objectives and specifics of the cash flow statement

The cash flow statement has been designed to provide information about the cash receipts and cash payments of a company. It is a third principal financial statement in corporate financial reports. With the introduction and acceptance of the IFRSs, two schools for the preparation of the cash flow statement remain: IAS 7 and SFAS 95/ASC 230.

According to the FASB, the objective of the cash flow statement is to provide information about actual cash inflows and outflows of a company classified into meaningful categories. The information about actual cash flows is useful to creditors, investors and other external parties to assess:

1) The ability of a company to generate positive future net cash flows, meet its obligations and pay dividends;
2) The need for external financing;
3) The quality of earnings (reasons for differences between net profit and cash flows from operations);
4) The effects on financial position from cash and non-cash investing and financing activities;

As the cash flow statement is a historical report of actual cash flows, non-cash investing and financing activities cannot be reported in the statement, but must be disclosed separately.

The FASB's approach to the statement is rooted in the perception that the purpose of the cash flow statement is conversion of accrual basis net profit into cash basis flows from operations (see Figure 2.1.).

Under the IFRSs, cash reporting is formalized in IAS 7 "Cash Flow Statements" issued in 1992. A cash flow statement is part of a company's complete set of financial statements and is mandatory in the European Union since 2005. The IASB reasons that financial statement users employ cash flow information to assess the ability of the enterprise to generate cash and enables users to develop models to assess and compare the present value of future cash flows of different enterprises and cash flow information is also used as an indicator of the amount, timing and certainty of future cash flows (IASB, 2016). The objective of IAS 7 is to require the provision of information about the historical changes in cash and cash equivalents of a company.

Operating cash flows			***Income statement***	
Net Profit	100		Revenue	1,500
Plus depreciation	50		Less: Cost of sales	(800)
Plus amortization	20		Less: Rents	(50)
Less: capital gains	(30)		Les: Payroll	(250)
Change in accounts receivable	(250)		Less: Depreciation and amortisation	(70)
Change in inventory	(100)		Less: Other operating exp.	(100)
Change in accounts payable	150		*Net Operating Profit*	*230*
Change in payroll payable	20		Less: Interest expenses	(90)
Change in prepayments	(10)		Less: Income tax	(50)
Change in income tax payable	(20)		Plus: Capital gains	30
Change in other tax payable	30		Less: Other expense	(20)
Cash flow from operations	***(40)***		**Net Profit**	**100**

Figure 2.1. Conversion of accrual basis net profit into cash basis
Source: Cassis, 2003.

Therefore, according to standard setters, the main benefits would be that external users can evaluate a company's:

1) Financial structure, liquidity and solvency.
2) Ability to affect the amounts and timings of cash flows.
3) Ability to generate cash and cash equivalents.
4) It would also allow users to compare companies, irrespective of the nature of their activities, industry or geographic location.

The following section provides a comparison between the treatment of the main aspects in cash flow statement in IAS 7 and ASC 230.

Direct vs Indirect format for the preparation of the statement. Both IAS 7 and ASC 230 permit the indirect method, but favour the direct method as a more informative one.

Operating activities. According to IAS 7, the amount of cash arising from operating activities is a key indicator of the extent to which the operations of the entity have generated sufficient cash flows to repay loans, maintain its operating capability, pay dividends, and make new investments without recourse to external financing. Cash flows from operating activities are primarily derived from the principal revenue producing activities of an entity. Cash flows from operating activities include:

1) Cash receipts from the sale of goods and the rendering of services;
2) Cash receipts from royalties, fees, commissions, and other revenue;
3) Cash payments to suppliers for goods and services;
4) Cash payments to and on behalf of employees;
5) Cash receipts and cash payments of an insurance entity for premiums and claims, annuities, and other policy benefits;
6) Cash payments or refunds of income taxes unless they can be specifically identified with financing and investing activities;
7) Cash receipts and payments from contracts held for dealing or trading purposes;

The US GAAP states that operating activities are a residual category that includes all transactions and events other than investing and financing activities and provides examples of cash inflow and cash outflow activities.

Operating inflows include

1) customer collections from sales of goods and services (including trading securities and loans acquired specifically for resale);

2) interest and dividend collections on investments in debt and equity securities of other entities;
3) all other receipts not defined as investing or financing inflows, such as supplier refunds, collections of lawsuits, and most insurance proceeds.

Operating outflows include:

1) payment for inventories (including trading securities and loans acquired specifically for resale);
2) payments to employees;
3) payments to suppliers of other goods and services;
4) payments of interest (unless capitalized);
5) payments to settle asset retirement obligations;
6) payments to the government for taxes, duties, fines and other fees;
7) all other payments not defined as investing or financing outflows, such as customer refunds, payments of lawsuits, and charitable contributions.

Both IAS 7 and ASC 230 reason that when the entity holds securities or loans for dealing or trading purposes, they are similar to inventory acquired specifically for resale, thus cash flows arising from such transactions should be classified as operating activities. Both standards provide specific guidance for defining operating activities for financial institutions. According to IAS 7, financial institutions should classify cash advances for loans made as operating activity, as it is their main revenue-producing activity. Non-financial institutions should classify cash advances for loans made as investing activities. ASC 230 states that non-financial entities make investments in plant assets, while financial entities make investments in loans; therefore, except for purchase and sale of dealing or trading loans, making loans to and collecting loans from other entities are investing activities for both financial and non-financial entities.

The author of the thesis would like to draw attention to the fact, the even though operating activities are the most important ones in the company, as they are the primary reason a company has been established, in the standard setters view' they are defined as a residual category – activities which do not fit the definition of investing or financing activities.

Investing activities. IAS 7 states that a separate disclosure of cash flows from investing activities is important because the cash flows represent the extent to which expenditures have been made for resources intended to generate future income and cash flows. According to the standard, investing activities include:

1) cash payments to acquire property, plant and equipment, intangibles, other long-term assets, including payments relating to capitalized development costs of self-constructed property, plant and equipment;
2) cash receipts from sale of property, plant and equipment, intangibles, and other long-term assets;
3) cash payments to acquire equity or debt instruments of other entities and interests in a joint venture (other than payments for those instruments considered to be cash equivalents or those held for dealing or trading purposes);
4) cash receipts from sales of equity or debt instruments of other entities and interests in a joint venture (other than receipts for those instruments considered to be cash equivalents or those held for dealing or trading purposes);
5) cash advances and loans made to other parties (other than advances and loans made by a financial institution);
6) cash receipts from the repayment of advances and loans made to other parties (other than advances and loans of a financial institution);

7) cash receipts from futures contracts, forward contracts, option contracts, and swap contracts, except when the contracts are held for dealing or trading purposes or the receipts are classified as financing activities.

According to IAS 7, only expenditures that result in recognized assets should be classified as investing activities. For example, expenditures on the exploration and evaluation of mineral resources, advertising and promotional activities, staff training, and research and development may benefit future periods. However, if they do not result in the recognition of an asset under the IFRSs, they are operating outflows. The author of the thesis would like to draw attention to the fact with the rise of research-intensive companies, such as pharmaceuticals, software developers; the investing section of the cash flow statement does not present the whole picture. ASC 230 classifies investing activities similarly to IAS 7, with the only exception that cash payments for and collections of loans and advances to other parties (other than loans made specifically for resale) are always classified as investing activities.

Financing activities. IAS 7 states that a separate disclosure of cash flows from financing activities is important because it is useful in predicting claims on future cash flows by providers of capital to the entity. Cash flows from financing activities include:

1) cash proceeds from issuing shares or other equity instruments;
2) cash payments to owners to acquire or redeem the entity's shares;
3) cash proceeds from issuing debentures, loans, notes, bonds, mortgages, and other short- or long-term borrowings;
4) cash repayments of amounts borrowed;
5) cash payments by a lessee for the reduction of the outstanding liability relating to finance lease;

ASC 230 classifies financing activities in a similar fashion, and only adds that financing inflows include proceeds from derivative instruments that include financing elements at inception, whether the proceeds are received at inception or over the term of the derivative instrument, other than a financing element inherently included in an at-the-market derivative instrument with no prepayment. While financing outflows include distributions to counterparties of derivative instruments that include financing elements at inception, other than a financing element inherently included in an at-the-market derivative instrument with no prepayment.

Interest and dividend classification. This issue provides ones of the major differences in the views and positions of the US and international standard setters. IAS 7 requires that cash flows from interests and dividends received are disclosed separately and classified consistently from period to period as either operating or investing or financing activities. The IASB notes that interests paid and interests and dividends received are usually classified as operating cash flows for a financial entity, but no consensus on the classification of these cash flows for other entities was reached. Uncapitalized interests paid and interests and dividends received may be classified as operating cash flows because they enter into the determination of profit or loss. Alternatively, uncapitalized interests paid may be classified as financing outflow, because they are costs of obtaining financial resources, and interests and dividends received may be classified as investing inflows because they are returns on investment. However, under IAS 23, borrowing costs and capitalized interests should be classified consistent with the classification of the underlying asset to which those payments relate. Under IAS 7, dividend payments can be classified as financing cash outflows because they are a cost of obtaining financial resources. Alternatively, dividend payments can be classified as operating cash outflows, to assist users to assess the ability to pay dividends out of net cash flow from operating activities. ASC 230 is much stricter and requires classification of all interests and dividends received are operating inflows. Uncapitalized interest payments

are operating outflows and capitalized interest payments are investing outflows, while dividend payments are always financing cash outflows. It should be noted, however, that such decision was a result of voting (four members for and three against), not a conceptual agreement.

Cash and cash equivalents definition. This is another issue where the IASB and the FASB took a different stand. IAS 7 defines cash equivalents as short-term (3 months or less from the date of acquisition), highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value. Under the IFRSs, equity investments with short term, fixed maturity dates and maturity values and subject to insignificant risk of value changes, also qualify as cash equivalents. Under some circumstances, bank overdrafts are included in cash and cash equivalents. In some countries, bank overdrafts repayable on demand constitute an integral part of company's cash management policies, thus they are part of cash and cash equivalents. ASC 230 defines cash and cash equivalents similarly, but explicitly forbids treatment of investments in equity securities and bank overdrafts as cash equivalents; instead, they are accounted for as liabilities, and changes in overdraft balances are classified as financing cash flows. Both the IASB and the FASB reason that purchases and sales of cash equivalents are merely movements from one form of cash to another form, hence are part of a company's cash management rather than part of its operating, investing or financing activities.

Gross vs net reporting. Under IAS 7, presentation of gross cash inflows and outflows is considered to be more informative and is encouraged. However, the standard allows to use the net method for some operating, investing or financing activities, for example: (1) Cash receipts and payments on behalf of customers when cash flows reflect the activities of customers, rather than those of the company, or (2) Cash receipts and payments for items in which the turnover is quick, the amounts large, and the maturities short. ASC 230 supports the stand that gross figures are more informative, but also allows to use the net method for some operating, investing or financing activities.

Income tax. IAS 7 states that while income tax expense might be readily identified with investing and financing activities the related income tax cash flows are often impracticable to identify and may arise in different periods from underlying investing or financing transactions. Thus, they are usually classified as operating cash outflows. However, if it is practically possible to allocate, the standard allows to classify income tax payments as investing or financing cash flows. ASC 230 prohibits allocating income tax among operating, investing and financing activities in the cash flow statement; they must be classified as operating cash outflows (with the exception of income tax benefits of stock-based compensation awards, which are classified as financing inflows).

Non-cash investing and financing transactions. Under IAS 7, noncash investing and financing transactions (i.e. converting debt into equity or vice versa, acquiring entity by means of equity issue, acquiring assets by assuming directly related liabilities) are excluded from the cash flow statement. The IASB reasons that exclusion is consistent with the objective of the cash flow statement to report cash flows per se, and not to report items that do not involve cash flows during the current period. However, because noncash investing and financing transactions affect the asset and capital structure of a company, IAS 7 requires their disclosure in the cash flow statement. Under ASC 230, noncash investing and financing transactions (i.e. converting debt into equity or vice versa, acquiring entity by means of equity issue, acquiring assets by assuming directly related liabilities) are also excluded from the cash flow statement, but required to be disclosed in the reports.

Cash flow information serves many needs of financial market participants. For example, the cash flow statement is essential for equity investors, as SFAS 95 indicates that the cash flow statement helps investors assess future cash flows, evaluate the availability of cash for

dividends and evaluate the enterprise's ability to finance the growth of the firm from internal sources. Also, the IFRSs add that cash flow information enhances the comparability of operating performance by different entities, "because it eliminates the effects of using different accounting treatments for the same transaction and events" (IASB, 2016, 4). As seen from the above comparison, at the standard setting level the approach to the cash flow statement is similar in separating activities into operating, investing and financing as well as the permission to use both the direct and indirect format for the presentation of operating activities. The major differences between the standards are in the treatment of bank overdrafts, the classification of interests received, interests paid, dividends received, and dividends paid.

2.2 Information content in the cash flow statement

Sharma and Iselin (2003) investigate that critics of historical cost financial statements state that there are confusing definitions of capital, capital maintenance and income. The flexibility of accrual accounting has led to differences in accounting rules and methods, thus making it hard to compare the profitability and financial position of enterprises (Yap, 1997). On the other hand, the cash flow statement provides a more logical definition of operating activity and flows associated with it, avoiding merely bookkeeping transactions, such as depreciation, provisions, accruals, etc. The trend of a company's operating cash could be seen as a major index of its financial performance, as it is cash from which all capital expenditures, tax payments and liquidity adjustments must be financed, along with returns to lenders and shareholders (Yap, 1997). As shareholders are concerned with dividends, again it is claimed that cash flows and not earnings, are better indicators of future dividends, as cash must be present to make dividend payments (Lawson, 1978). If dividends are set at levels consistently exceeding the entity's post-tax cash flows, the shortfall must be financed by debt, which in the future would lead to higher interest payments, principal repayments and would influence the company's solvency (Yap, 1997). Staubus (1989) notes that the cash flow potential of an enterprise is the "implicitly accepted concept of enterprise wealth in an exchange economy", because assets have positive cash flow potential and liabilities have a negative cash flow potential and net enterprise wealth is the mathematical sum of positive and negative cash potentials.

Accounting literature stresses that the main purpose of financial statements is to help investors predict future cash flows from their investment, namely cash flows from dividends, sales of shares, and evaluate future cash generation by the company to enable those flows. Additionally, cash flow statement is used to evaluate the relationship between profits and cash flows, termed "quality of earnings" (Wittington, 1974; Jones, 1975; Ijiri, 1978).

Researchers have also tried to find empirical evidence for the link between cash flows and dividends. Campbell and Shiller (1988) find a link between a moving average of a firm's earnings and the present value of future dividends. McCann and Olson (1994) provide further support on the earnings and dividends relationship, while Benartzi et al. (1997) support this claim and add that the reverse relation might also be true. Fama and French (2001) explore the relationship between earnings and dividends and conclude that profitability is a determinant of dividend payout, and that negative earnings cause termination of dividends. Consler et al. (2011) investigate 1902 dividend-paying companies between 2000-2006 to establish whether cash flow from operations serves as a better predictor of dividends than earnings, and conclude that the cash per share measure does outperform earnings per share.

Net operating cash flow is becoming an increasingly popular measure of corporate performance, and is used in numerous ratios, such as cash flow interest coverage, operating cash flow to total liabilities ratio, operating cash flow to capital expenditure ratio, cash flow

per share ratio, cash flow rate of return on investment ratio (Carslaw and Mills, 1991, Stickney, 1993). The cash flow interest coverage ratio, operating cash flow to total liabilities ratio, operating cash flow to capital expenditure ratio are often used in contracts with creditors, while net operating cash flow, cash flow per share ratio, cash flow rate of return on investment ratio are often used for management performance valuation and compensation (Nurnberg, 2006). Mills and Yamamura (1998) note that major credit-rating agencies use cash flow ratios in their decision. Investors' increased use of the cash flow statement is beneficial because analysing the cash flow statement is necessary for understanding a company's financial performance and position (Siegel, 2006). Cash flow from the operating activities is warranting special attention from investors (Cheng and Hollie, 2008). Discounted operating cash flow is used for evaluation of risky investments (Nurnberg, 2006), operating activities section is used as a comparison figure for net profit to validate its reliability (Broome, 2004).

Rodriguez et al. (2012) note that prior research in the finance area offers wide evidence of the impact of investments on corporate performance and investigate whether financial statements, particularly the cash flow statement, provide users with relevant information on investment transactions. Using a sample of UK companies they document two main facts. First, cash flow statements convey valuable information on corporate investments (i.e. investing cash flows) that help users in assessing the firm's future cash flows. Second, information on those investments that were not financed with cash is also relevant when assessing the future prospects of the firm, though it is not reflected in the face of the financial statements. The results suggest that, even in the UK, where most investments are financed with cash, valuable information on investments is missed from the cash flow statement. The authors point out that they extended the previous study of Livnat and Zarovin (1990) to the UK context and have received similar results.

Information content in other financial statements. A body of literature also provide empirical support that financial statement users are perceiving the balance sheet and the income statement as the primary financial statements. Kim and Kross (2005) note that despite theoretical valuation models favouring usage of cash flow as input, net earnings is still widely used in share valuation and performance measurement by practitioners. Early empirical study by Epstein and Pava (1992) provides a survey of US shareholder views, that even though they consider the cash flow statement to be important, they consider the balance sheet and the income statement as being more important. Anderson and Epstein (1995) carried out a survey among Australian shareholders and found that the income statement was the most analysed statement, while only 24% of the respondents read the cash flow statement thoroughly. Yap (1997) also investigated the Australian financial sector and found that lenders ranked the balance sheet and the income statement as two primary statements, while the notes to financial statements and cash flow statement were in the third place. The author attributes such ranking to the fact that financial users still lack familiarity with the cash flow statement and, therefore, are not using it to the full in the decision-making process.

On the other hand, there is also empirical evidence that the use of cash flow data is gaining in popularity. Siegel (2006) notes that accrual-based figures have decreased in reliability after the scandals of Enron, WorldCom and others since the early 2000s, and many analysts have shifted towards the cash flow statement for company valuation. Price (2013) notes similarly that due to the recent accounting scandals, the cash flow statement has become increasingly popular, due to the perception that it is less subject to manipulation. Vito (2013) stresses the significance of the cash flow statement in the financial reporting package as it serves as a link between the statement of operations and the statement of financial position, effectively converting the accrual basis reports into cash basis. Davern et al. (2019) report that all three

financial statements are used in investor decision making, while the cash flow statement is still the least understood and used one.

2.3 Perspectives of usefulness

Company perspective: cash management. Company managers want to know if the cash generated by the company will be sufficient to fund their expansion strategy, shareholders want to know if the company is generating enough cash to pay dividends, suppliers want to know if their customers will be able to pay if offered credit, investors want to evaluate the future growth potential, and employees are interested in the overall viability of their employer and its ability to fund its operations. These are just a few insights stakeholders are aiming to gain from the cash flow statement.

Cash flow forecasting is the key element of companies' financial management. Short-term forecasts are prerequisite for liquidity management and hedging of financial risks, while long-term forecasts are the basis for investment and financing decisions (Glaum et al*.,* 2018). This makes the cash flow statement unique in a sense that it not only provides information for the outside users like other financial reports, but could also be used internally by the management of the company.

Cooley and Pullen (1979) found that small companies did well in controlling cash flows and used rather sophisticated cash-management techniques, when they surveyed 122 smaller gasoline retailers and evaluated their cash management in three areas: budgeting, temporary investing of excess cash, and controlling cash inflows and outflows to maximize cash in the company. Govindarajan and Shank (1986) called cash sufficiency the missing link on all strategic planning, not just in entrepreneurial planning, as in times of large conglomerates, corporations were really composed of many dissimilar business units. They defined cash sufficiency as a company having enough cash for the company to grow itself. Govindarajan and Shank noted that incoming cash flows included internally generated capital, borrowing, and attracting new investors. Outgoing cash flows included maintaining operations and investing in new assets for growth. They urged companies to calculate sustainable growth rates based on the cash available to the company and to use those rates to make strategic decisions. Nevertheless, Govindarajan and Shank (1986) believed that cash sufficiency alone could not explain all of the strategic choices available to a company and simply sought to include cash sufficiency as one component of the complex strategic model.

Berger and Hamman (1999) even made cash a more central component of strategy when they proposed their cash-flow sustainable growth rate (CFSGR). They noted the shortcoming of the sustainable growth rate used by firms, as it ignored how much cash the company actually had, which sometimes led to situations when a company seemingly achieved all its growth goal, but ran out of cash. Berger and Hamman (1999) also observed that strategic planners separated strategic goals, which pertained to the long-term viability of the company, from financial goals, which pertained to the short-term viability. Hamman emphasized that a company's growth began with its sales, but that sales growth then had to be carefully balanced with the company's financial resources and operating abilities to produce the additional products sold. To achieve that balance, the company's bankers would utilize the sustainable growth rate (SGR) to determine its financing needs and investment opportunities, and the company's managers would utilize the same SGR to balance and prioritize its operating goals. Yet the SGR was based on accruals and therefore missed the needed cash position of the company. Burger's and Hamman's cash-flow sustainable growth rate (CFSGR) was intended to make sure that the company actually had enough cash to fund its growth, rather than having to wait for its accruals to hopefully turn into cash.

The change to "entrepreneurial economy" (Kuratko, 2005) has further highlighted the importance of cash to companies. Opiela (2006) identified cash flow as the single most important factor in the success or failure of companies. She found that entrepreneurial companies tended to focus on satisfying the existing customers when cash was plentiful. Instead, Opiela argued that those companies needed to proactively seek new customers to generate future cash. She cautioned that a month without new clients would mean cash-flow problems for the company three months later. Opiela (2006) advised start-up companies in particular to focus on the "burn rate" of their cash and to avoid confusing paper profits with hard cash, as well as cautioned the owners of entrepreneurial companies about using personal assets to bail out their struggling companies. Drawing from financial planners, Opiela advised entrepreneurial companies to conduct liquidity assessments in six areas: operating budgets for monthly inflows and outflows of cash, reserve funds to provide three months' worth of living expenses for the company's owner, capital funds to enable the company to grow, dedicated funds for special projects, opportunity funds for taking advantage of opportunities, and contingency funds. Jacobides and Winter (2007) took a more theoretical look at the importance of cash to entrepreneurial companies. They found that available cash, not economic synergies, would determine how broad a place in the value chain a given company would seek to occupy and that companies would seek to occupy only those narrow parts of the value chain where they obtain the maximum return on their available cash, rather than seeking to occupy all parts of the value chain where each company's innovations might add economic value. Jacobides and Winter (2007) defined an entrepreneurial company not by its size, but by its quest to capture extraordinary profit-making opportunities before other companies had found them and observed that this quest would create considerable cash restrictions for the entrepreneurial company because investors would be reluctant to provide cash for unproven ventures. Hence, the company would seek cash flows wherever they could be found, even in side-ventures that were not in the company's core competencies. The authors noted that cash was not the only constrained resource in entrepreneurial companies and that the specific constrained resources were unique to each company. Cash, however, was the one constrained resource common to all entrepreneurial companies, and they described entrepreneurs as being "rich in ideas and poor in cash."

Bates et al. (2009) soon followed to show the importance of cash to all companies, not just to entrepreneurial ones. The authors found that the cash-to-assets ratios of U.S. companies had more than doubled between 1980 and 2006. More strikingly, the authors found that the typical company now had enough cash to retire all of its debt and did find that the cash increases were most pronounced in companies that did not pay dividends, in those with recent IPOs, and in those in volatile industries. Nevertheless, the overall trend toward more cash cut across all types of companies. The authors attributed this increased cash in companies to increasing cash-flow risks, falling inventories, falling capital expenditures, and increasing research and development costs. Bates et al. (2009) believed that the first factor, cash-flow risk, had been intensified because their study had been conducted during a time of increasing entrepreneurship. Entrepreneurial companies were believed to hold more precautionary cash than longer-established companies and the authors predicted that cash-flow risk would lessen as these entrepreneurial companies matured, but the remaining three factors of lower inventory levels, increased research and development, and lower capital assets, would continue to drive higher cash levels in companies. Bates et al. (2009) emphasized that trends toward higher research and development and lower hard assets meant that companies needed more cash for self-financing their research and development. This was because fewer hard assets would be available for loan collaterals and the incoming cash flows that loans could produce.

Almeida et al. (2004) report that a major advantage of a liquid balance sheet for the company is that it allows companies to undertake profitable projects once the opportunity arises. They investigate the link between a company's financial constraints and demand for liquidity, which leads to the determination of a company's behaviour towards cash flows. They find that constrained firms display significant positive cash-cash flow sensitivities, meaning that companies save cash today to fund future investment opportunities. Unconstrained companies do not do that and do not incur any cost of holding cash.

Khurana et al. (2006) build on the research of Almeida et al. (2004) to investigate the influence of the financial development of a country on the demand for liquidity and, consequently, on the sensitivity of cash holdings and cash flows. They conclude that cash flow sensitivity of cash decreases with country's level of financial development, as more opportunities for external lending appear while companies in financially less developed countries exhibit a greater propensity to save cash from the cash flows in the current period.

Investor's perspective: prediction of future cash flows. The primary objective of financial reporting has shifted to the concept of information usefulness in terms of its ability to predict future cash flows of an enterprise (IASB, 2018). Financial statements provide useful information about assets and liabilities only if they convey timely facts about their potential effects on future cash flows. After all, cash flow to the capital providers, in form of dividends, interests and principal repayments comes from the entity's cash flows. Moreover, literature shows that future cash flow expectations are aligned to share prices. Estep (1987) showed that investment portfolios produced returns for the investors in three ways: from equity growth within the investments themselves, from cash flows generated by the investments, and from changes in the perceived market values of investments. At the time of his writing, portfolio managers were mainly focusing on the third aspect, while his empirical testing showed that 90% of Dow Jones portfolio returns in 1985 came not from perceived-valuation changes, but from equity growths and cash flows. Estep (1987) acknowledged that valuation changes could produce dramatic, short-term returns, but he showed their effect to be neutral over the long term. Estep further observed valuation changes to be volatile and unreliable. Equity growths and cash flows, by contrast, were far more stable, accounting for no losses in returns over the period that Estep studied. Cash flows, the subject of this thesis, were the smallest, but most stable component of portfolio returns. Estep (1987) found that cash flows and equity growths were inherently complementary since when cash was being used for growth, cash flow naturally declined and, therefore, he advised prudent portfolio managers to maximize returns by balancing focus between both cash flows and equity growths.

According to Lee (1972), the projected cash flows would allow investors to understand a company's ability to make payments and its financial policy. Several authors, Jones et al. (1995), Mills and Yamamura (1998) suggest that cash flow figures are more useful for investors than figures shown in other financial statements. Jones et al. (1998) find that 210 studied respondents rated cash flow information as useful in a variety of different internal and external decisions, with bankers, managers, institutional investors and shareholders.

The predictive ability of cash flows from operations has been reported in numerous studies. Burgstahler et al. (1998) find that cash flows have more predictive power than earnings. The authors have used cash flow from operations, as it tells investors how much cash is generated by the regular operations of the business. Cheng et al. (1997) find that cash flows from operations are value-relevant and play an incremental role in explaining security prices.

Cash flow from operations was shown to positively associate with market returns by Livnat and Zarowin (1990). Finger (1994) and Lorek and Willinger (1996) analyse time series of earnings and cash flows and conclude that cash flows from operating activities have better predictive ability. Chu (1997) investigated share returns in Taiwan just after the introduction

of the cash flow statement and found a positive correlation between cash flows from operations and share prices. Houge and Loughan (2000) examined the importance of cash flows for investors by investigating portfolio-return effects of company earnings, accruals and cash flows, noting that earnings were simply the sum of accruals and cash flows and finding some division in literature on the relative importance of each component. Their empirical testing was aimed at identifying which component actually produced the highest returns for investors, and they found it to be cash flows. Houge and Loughran (2000) believed this phenomenon to be quite logical and referenced an established economic theory that the value of any asset was the sum of the stream of cash flows which that asset could produce, discounted for the length of time before each of those cash flows could be obtained; hence, current cash flows were far more valuable to investors than any future cash flows resulting from current accruals. Houge and Loughran noted that other authors, particularly Sloan (1996), had already advanced this "cash is king" investment approach. Yet, they believed that earlier authors had not fully dealt with the differences between cash flows and accruals. Houge and Loughran observed that firms with high cash flows usually had low accruals, and vice versa, and that superior portfolio returns from cash-based investment strategies were driven by both better-than-average returns from high-cash-flow companies and poorer-than-average returns from high-accrual companies. They described cash flows as persistent and accruals as transitory and further classified high-cash-flow firms as having high-quality earnings that could produce superior returns. Shivakumar (2006) though not referring directly to Houge and Loughran (2000) performed extensive econometric testing of all domestic NYSE/AMEX and NASDAQ stocks between 1979 and 1999 calculating the expected cash flows from stocks, comparing them to actual cash flows and seeing what effect any unexpected cash flows had had on stock prices and on future cash flows. He arrived at a similar conclusion as Houge and Loughran (2000) that unexpected cash flows affected both stock prices and future cash flows in greater ways than did unexpected accruals.

Farshadfar et al. (2008) have investigated a sample of 323 Australian companies listed on the Australian Stock Exchange for 1992–2004, and evaluated the usefulness of earnings, cash flow from operations and two estimates of cash flows (earnings plus depreciation/amortization and working capital from operations) in prediction of future cash flows. Their findings are that reported cash flows are better predictors of future cash flows as compared to earnings or estimates. The findings are consistent regardless of company size.

Lorek and Willinger (2009) investigated a sample of 1,174 US firms for the period 1989–2004, to determine the ability of past operating cash flows and past earnings to predict future cash flows. The authors find that cash-flow based models are significantly more accurate than earnings models, and consistent with Dechow (1994) find that shorter operating cycles provide for more accurate cash flow predictions. Lorek and Willinger (2009) extend their research to compare the predictive power of actual cash flows as reported in the cash flow statement and the estimated cash flows, and find that the model prediction power goes down if the input is the estimated cash flow data.

Cheng and Hollie (2008) use 29,090 firm-year observations from 1988–2004 (excluding financial services firms) and decompose cash flows from operations into core (sales, cost of goods sold, operating expenses) and non-core components (interest, taxes, non-recurring activities), which parallels with the income statement presentation of operating and non-operating activities. They confirm the original hypothesis that core and non-core cash flow components behave differently in predicting future cash flows.

Quite a few researchers have investigated the influence of the cash flow statement format on the prediction usefulness and accuracy. Orput and Zang (2009) find that the direct method of cash flow statement presentation facilitates accuracy of prediction. The authors state such reasons for that as better information content under this method, as some items, like cash

received from customers, cannot be estimated from indirect method statement of cash flow, which is consistent with Cheng and Hollie (2008). The authors also note that the direct method is more used by market participants, as it is inherently easier to understand.

In summary, the previous literature shows that cash flow information is more valuable than earnings for future cash flow prediction, whether those are cash inflows to the firm or outflows to investors via dividends or an increased share value. The same holds even for estimated cash flows, as compared to earnings figures.

Creditor's perspective: assessment of liquidity and solvency. When Dechow and Dichev (2002) had developed a direct approach to measuring the relationship in earnings between cash and accruals, Schipper and Vincent (2003) even believed that Dechow's and Dichev's approach was faithful to their own preferred Hicksian approach. Dechow, Richardson and Sloan (2008) believed that prior research had already established the superior persistence (sustainability) of cash over accruals, meaning that companies with earnings composed of more cash and fewer accruals could replicate those earnings over longer periods of time than companies with earnings composed of the reverse. Dechow, Richardson and Sloan (2008) now sought to explore whether the ways in which companies utilized the cash component of their earnings further affected the quality of those earnings and the resulting value to investors of those companies. Dechow, Richardson, & Sloan (2008) observed that a company's FCFs could be alternately paid out to investors as dividends or stock repurchases, used to retire company debt, or retained within the company as cash balances. After examining the effects of each alternative on 150,000 firm-years between 1950 and 2003, Dechow, Richardson and Sloan found that cash paid out to investors was the most valuable and offered four conclusions from their research: first, earnings alone were an insufficient benchmark with which to evaluate a company; second, cash retained by a company for its projects was less valuable than cash paid out to investors or used to retire debt; third, companies with large accruals had lower earnings persistence and lower future returns to investors than companies with relatively higher cash; and fourth, in valuing a company, cash retained within the company was less valuable than cash paid out. Thus, the authors urged investment analysts to focus on the uses of a company's cash flows, not just the amount of those cash flows.

The advice was sound in theory, but problematical in practice. Hewitt (2009) found that both professional analysts and non-professional investors had trouble even separating cash flows from accruals in current accounting statements. Hewitt tested 74 professional analysts from varied firms and 128 first-year MBA students who simulated non-professional investors. He found that both the professionals and the non-professionals did fine as long as cash flows and accruals were similarly persistent (sustainable) in the companies that they were studying, but that both the professionals and the non-professionals struggled when cash flows and accruals were differently persistent. Hewitt cited prior research that had found that up to 40% of companies had such differing persistence rates in their cash flows and accruals. Hewitt (2009) believed that the reason why both professionals and non-professionals had difficulty with the accounting statements was the indirect method by which the FASB standards required the cash flow statement to be prepared and presented. He noted that by the Financial Statement Presentation Project the FASB itself had proposed major revisions to those standards. Hewitt quoted the FASB chair as saying that the proposed revisions were intended to have the income statement and the cash flow statement to be used in two distinct ways. The former could continue to be accrual-based with the latter would become more directly cash-based. Hewitt concluded that both his research and the prior research of Bradshaw et al. (2001) and Elgers et al. (2003) supported those proposed revisions.

During the 1950s the analysis of debt-paying ability was measured with working capital. However, it was noted that "bankers learned by tragic experience that there was no mystical

significance in two-to-one ratio. They observed that in many types of business, under the stress of general disaster, inventories could not be sold and bring immediate repayment of debts" (Heath, 1978, 98). Coughlan (1964) has noted that working capital has been thought as a "pool" of resources available to satisfy creditors, but it was rather unlikely that any banker or creditor would be satisfied with any other part from that pool than cash. Working capital, thus, has no meaning in the assessment of solvency and the main question for a credit analyst is not whether a company's working capital is adequate, but whether cash generation is positive, as current liabilities are not paid with current assets, but with cash.

From the 1970s there was an increasing belief that operating cash flow coverage, rather than asset liquidation value, is the main element of solvency analysis (Yap, 1997). Several high profile bankruptcies, like W. T. Grant Company in the USA (Largay & Stickney, 1980), Laker Airways in the UK (Lee, 1982) and Brash Holdings in Australia (Sharma, 1996) have shifted the attention of academics to the usefulness of cash flow information over accrual information in assessing the solvency of a firm. In all the above cases, accrual data did not indicate any solvency or liquidity issues, as companies have reported positive earnings. On the other hand, cash flow data, and specifically cash flow from operating activities have indicated a possibility of bankruptcy as early as 10 years beforehand. Later research has shown that in all cases accrual solvency indicators have been stable or even improving, while cash flow from operations was constantly declining (Sharma and Iselin, 2003).

At the same time, academic research has documented that investment professionals are also supporting cash flow data as a useful source of information to assess the liquidity and solvency of a company. Peirson et al. (1991) and Yap (1997) document that the availability of the cash flow statements would have provided early warning signs.

Creditors and lenders have started using cash-flow based ratios in assessing the liquidity and solvency of the company. According to Mills and Yamamura (1998), when it comes to enterprise liquidity analysis, cash flow data is more reliable than the balance sheet or the income statement, as balance sheet data is static, while the income statement contains many arbitrary non-cash allocations (i.e. depreciation). After all, when a loan decision is made, the focus of the analyst is to determine whether the company can pay the loan back on time and with the interest. All information providing insights into the amounts, timing and certainty of the company's future cash flows is useful to liquidity and solvency evaluation. Traditional working capital ratios indicate only how much cash an entity has on a particular date, and had in the past, while the cash flow statement shows how much cash has been generated over a period. Comparing this generation to short-term obligations of the company, a more dynamic view is presented. Mills and Yamamura (1998) and Kirkham (2012) find that traditional ratios, such as current, quick and interest coverage ratios, can often lead to incorrect assumptions about a company's liquidity and recommend using them in conjunction with cash-flow based ratios, such as cash flow ratio, critical needs cash coverage ratio and cash interest coverage ratio.

Sharma and Iselin (2003) investigate the usefulness of cash flow and accrual information for the Australian bankers, in a behavioural experiment for solvency assessment. Sixty lenders with a minimum of three-year work experience were divided into two groups and provided with either accrual or cash flow information (financial ratios for 14 firms). Based on the data provided, lenders had to make a solvency prediction for the company. The results show that lenders using cash flow information make statistically a significantly more accurate decision than lenders using accrual data. Yap (1997) investigated Australian financial industry workers and found that cash flow data was used for both solvency and liquidity assessment. Jooste (2019) proposes a model for linking the firm life-cycle model to cash flows for performance analysis and liquidity valuation.

2.4 Format: direct vs indirect method

The key number in the cash flow statement is cash from operations (CFO). There are two methods of reporting CFO in the cash flow statement: the indirect method and direct method. Under the indirect method, cash flows from operations are derived by adjusting net profit for non-cash revenues, expenses, and non-operating gains and losses. Under the direct method, cash flows from operations are derived by adding individual categories of operating inflows and subtracting individual categories of operating outflows.

Even though the FASB and the IASB allow both methods and suggest the direct method, the majority of reports are still preparing it using the indirect method. Back in 2004, Broome reported that in more than 90% of the cash flow statements prepared by corporations the indirect method was being used. By now, the direct method is practically extinct in the United States. Trout (2019) refers to a review of the cash flow statements from S&P 500 prepared by Johnson (2017), which revealed that only 1 company (0.2%) used the direct method in 2016 (Trout, 2019).

The advantages and disadvantages of the indirect method. The principle advantage of the indirect method is that it outlines the difference between net profit and net cash flow from operations and allows users to identify leads and lags between profit and net cash flow. For example, it can be seen how increases and decreases in operating receivables and payables affect cash flow from operations. The analysis of the difference between net profit and net cash flow from operations is extensively used in the evaluation of the quality of earnings. The quality of earnings is defined as (1) extent to which net income represents CFO as opposed to accruals and deferrals (Bernstein, 1993), (2) degree of conservatism in a company's reported earnings (White et al., 2003) and (3) extent to which current earnings are a good predictor of future earnings (Penman, 2007). Sloan (1996) examined the information content of accruals and cash flow in earnings and suggested that the difference between net profit and CFO under the direct method does allow to detect earnings management, which is reporting either more or less of profit than should be reported. Earnings management could be achieved in two ways: real earnings management and accounting earnings management (Ewert and Wagenhofer, 2005). Real earnings management covers the management ability to restructure transactions to speed up or to slow down the recognition of revenues and/or expenses (i.e. expenditure on staff training or research and development). Accounting earnings management covers the management ability to use the flexibility of accounting standards to speed up or to slow down recognition of revenues and/or expenses (Mulford and Comiskey, 2002). Because income is used as a performance measure, the management can try to manage earnings to mislead shareholders about some economic performance of the company. Dechow and Skinner (2000), Healy and Whalen (1999), Mulford and Comiskey (2002) note that managers seek to manipulate earnings to keep up with loan covenants, meets or exceed financial analysts' forecasts, to increase the company stock price, to increase management compensation. Financial statement users can use the cash flow statement to detect real earnings management by looking at reconciliations made from net profit to CFO. For example, a significant decrease in accounts receivable or accounts payable could reflect speeding up collections from customers or slowing down payments to suppliers. Accounting earnings management could also be detected in a similar way. For example, a significant increase in inventory may show a slow moving of inventory due to obsolescence or value change, changes which have not been duly accrued for due to the flexibility of accounting rules. Such information, however, is not provided in the cash flow statement prepared under the direct method.

The principal disadvantage of the indirect method is that it does not report actual operating inflows and outflows of cash, but reports only a summary or net figure – net cash

flow from operations. Some authors (Smith & Freeman, 1996) criticize this format for simply reporting information, which is already present in the income statement and balance sheet.

An important fact to consider, which is sometimes ignored by investors, is that additions and subtractions under the indirect method show cash flow versus the accrual components of net profit, but they are only technical adjustments, they are not themselves actual cash flows. However, literature shows (Brigham & Gapenski, 1993, Weston & Copeland, 1992) that even analysts sometimes incorrectly describe those additions and subtractions as operating cash inflows and outflows. While actually, cash inflows are collections from customers and cash outflows are payments for goods and services. Operating receivables are results of credit sales; increases in receivables are subtractions in reconciliation, but they are not operating cash outflows to customers and or suppliers. Similarly, inventories are the result of purchase or manufacture of goods, and while decreases in inventory are additions in reconciliation, they are not actual cash inflows from operations (Smith & Freeman, 1996).

Another important issue with the indirect method of operating cash flows is the absence of an external benchmark for comparison. As a result, changes in certain balance sheet accounts are added or subtracted to net profit to calculate net operating cash flow, but the resulting amount is not subject to validation.

For example, adding an entire increase in accounts payable to net profit, including an increase in payables to suppliers of equipment, causes the resulting operating cash flow to be overstated by the investing activities for equipment. The direct method overcomes this problem by reporting gross operating inflows and outflows, which are actual numbers and subject to validation. To avoid such misstatements in the cash flows reported in the indirect method, it is required to carry out an extensive after-the-fact analysis of all significant non-operating transactions that are included in operating assets and liabilities. For example, merchandising and manufacturing companies should analyse accounts payable to exclude any change in amounts due to equipment suppliers, as opposed to inventory suppliers, as otherwise the change in accounts payable will not equal the difference between purchases of inventory and payments for inventory during the period. However, those adjustments create inconsistencies between the cash flow statement in the indirect method and the comparative balance sheets, as the change in accounts payable is reported as one amount in the cash flow statement and another in the comparative balance sheet.

Another issue could be the treatment of provision for uncollectible accounts. It is usually added back in the reconciliation of net profit to net operating cash flow, and increases/decreases in operating receivables are before the provision, but in most cases it is described as simply an increase/decrease in receivables. As a result, the increase/decrease in receivables reported in the cash flow statement does not equal the difference in net receivables reported in the comparative balance sheets. As noted by Nurnberg (1989), for domestic companies without business acquisitions or dispositions, the increase (decrease) in operating receivables before provisions for uncollectible accounts, in reality reflects the difference between customer collections and customer invoicing, and it would be beneficial for statement users if those changes would be simply called “excess of billing over collections” or “access of collections over billing”. In the same manner, decreases (increases) in inventory and increases (decreases) in operating payables should be combined in a single adjustment and described as “excess of operating expenses over operating payments” or “excess of operating payments over operating expenses”. Similarly, reconciliations in operating receivables and payables, inventories and prepaid expenses should exclude the effects on these accounts from business acquisitions and dispositions, and for multinational companies, the effects on these accounts from foreign currency exchange rate fluctuations.

An illustrative example of the preparation of cash flow from operations under the direct and indirect method is provided in Table 2.1.

Table 2.1. Illustrative example of the cash flow statement prepared using the indirect and direct method (in dollars)

Balance sheet	**2009**	**2008**
Cash	19,000	3,000
Accounts receivable	22,000	23,000
Inventories	34,000	31,000
Prepaid expenses	1,000	3,000
Equipment (net)	90,000	79,000
Intangible assets	9,000	9,000
TOTAL ASSETS	**175,000**	**148,000**
Accounts payable	14,000	9,000
Accrued liabilities	16,000	19,000
Income tax payable	14,000	12,000
Long-term note payable	45,000	50,000
Common stock	31,000	20,000
Retained Earnings	64,000	40,000
Treasury stock	(9,000)	(2,000)
TOTAL LIABILITIES AND EQUITY	**175,000**	**148,000**
Income statement		**2009**
Sales		190,000
Gain on sale of plant and equipment		6,000
Cost of goods sold		85,000
Depreciation expense		19,000
Other operating expenses		36,000
Income tax expense		18,000
Net profit		**38,000**
Additional data:		
Equipment was sold with the book value of 15,000		
10,000 of long-term note payable was repaid		
Cash flows from operating activities – indirect method		
Net profit	38,000	
Depreciation	19,000	
Gain on sale of plant and equipment	(6,000)	
Decrease in accounts receivable	1,000	
Increase in inventory	(3,000)	
Decrease in prepaid expenses	2,000	
Increase in accounts payable	5,000	
Decrease in accrued liabilities	(3,000)	
Increase in tax payable	2,000	
Net Cash flow from operating activities	**55,000**	
Cash flows from operating activities – direct method		
Cash Receipts:		
Collections from customers	191,000	
Cash payments:		
To suppliers	(120,000)	
For income tax	(16,000)	
Net Cash flow from operating activities	**55,000**	

Source: compiled by the author from Horngren & Harrison, 2007.

The requirements for this extensive after-the-fact analysis to identify and exclude the effects of non-operating transactions, business acquisitions and dispositions, and foreign currency rate fluctuations from the changes in the balance sheet accounts included in cash flow statements under the indirect method lead to the conclusion that the much discussed ease of applying the indirect method and the difficulty of applying direct method are not really the case, if done properly (Bahnson et al., 1996). Moreover, in the recent years academics have been observing the trend that the reconciliation items are sometimes rather arcane and difficult to understand even for educated users. Trout (2019) provides the following extracts from the annual reports for 2017 (see Table 2.2).

Table 2.2. Illustrative extracts from financial reports

Reconciling Item	Company (year)
Customer Financing valuation cost/(benefit)	Boeing (2017)
Net (gains) losses of consolidated investment entities	Ameriprise Financial (2017)
Accretion related to purchase accounting	Tomkins Financial Corporation (2017)
Unrealized foreign exchange (gains) losses	Synnex Corporation (2017)
AFS securities losses (gains), net	CIBC (2017)
Client Incentives	Visa Inc. (2017)
Excess tax benefit from stock-based compensation	Hormel Foods Corporation (2017)
Right to recover for covered losses recorded in equity	Hormel Foods Corporation (2017)

Source: Trout, 2019.

The advantages and disadvantages of the direct method: The principal advantage of the direct method is that it reports actual receipts and payments of cash. The direct method with reconciliation provides all the information provided under the indirect method plus information on operating cash inflows and outflows. Therefore, educated users can transform direct cash flow into cash flow under the indirect method easily, which cannot be done vice versa. Krishnan and Largay (2000) provide empirical evidence that cash flows under the direct method are more relevant than information about net flows under the indirect method to predict future cash flows. Past cash flow data are also more useful than past earnings in predicting future cash flows. The authors outline the following additional advantages of information on cash receipts and payments:

1) Ability to compare similar types of cash receipts and payments across companies (Richardson, 1991).
2) Better representation of company's cash cycle for credit providers and more user-friendly format for managers not possessing substantial accounting knowledge (O'Leary, 1988).
3) Helpful in cash flow variance analysis as the cash budget can be compared to the cash flow statement, therefore identifying any problems (Trout et al., 1993).
4) Facilitation of sensitivity analysis of cash flows to volume changes as gross cash receipts and payments can respond differently to changes in activity levels (Cornell & Apostolou, 1992).

The direct method of preparation of the cash flow statement is also perceived as more understandable (Knuston, 1993, Smith and Freeman, 1996). The multiple adjustments to net profit to obtain CFO can be challenging to understand, while individual categories of cash collections and disbursements under the direct method are more understandable even to the users with little training in financial accounting.

The main disadvantage of the direct method is that it requires more work to be prepared, as in addition to the statement the preparers are required to provide the reconciliation schedule of net profit to CFO. Additionally, some accountants caution that the cash flow statement in the direct method duplicates information provided in the income statement, that it is in essence an income statement prepared on the cash basis, and undermines the usefulness of accrual basis of income measurement (Mahoney, et al., 1988).

In the efficient market, it should not matter where information is disclosed, and if financial statement users can estimate direct cash flows from the income statement, the balance sheet and notes, there should be no issue in which format the cash flow statement is presented. Empirical results are varied.

Klammer and Reed (1990) carried out an experiment with bank analysts to investigate comparative advantages and disadvantages of the cash flows statement formats, in which analysts were asked to study a set of financial statements, evaluate cash flows of the entity and make a loan decision. The result showed that there was less variability in the size of loans

granted when the direct method of cash flow statement was presented. Kwok (2002), on the other hand, finds that loan officers do not use much information from the cash flow statement, relying instead on accounting information provided by accrual-based reports. Austin and Bradburry (1995) show that mechanical procedures for estimating cash flow data provide poor estimates for reported cash flow numbers, with an average error of 5% for cash collections from customers (but ranging from 0% to 71%). Bahnson et al. (1996) had 9,757 financial statements in the United States and concluded that articulation problems led to unexplained differences between estimated and reported cash flows, and that the mandatory use of the direct method for preparing the cash flow statement could help. Clinch et al. (2002) used a sample of Australian firms to investigate the ability of disclosed operating cash flow and indirect accruals to explain annual returns. The authors find significant explanatory power for disclosed operating cash flow components and significant predictive power for future operating cash flows, which supports the hypothesis that direct cash flow disclosures provide more information for the users. Cheng and Hollie (2008) find that various direct cash flow components are differently persistent in predicting future cash flows that is cash flows related to sales, cost of goods sold and operating expense are better predictors of future cash flows than cash flows from interests, taxes and other expenses. The authors also point out the data obtained from cash flow statements in the indirect method suffer from estimation and articulation errors. Orpurt and Zang (2009) provide evidence that market participants utilize direct method disclosures for better forecast of future operating performance. The authors demonstrate that the users of financial statements cannot correctly derive direct method components, such as cash receipts from customers, from statements in the indirect method, resulting in numerous errors in predictions. While direct method components, when used in prediction models, significantly improve forecasts of future cash flows and earnings and therefore, support standard setters' preference for the direct method statement of cash flow presentation. Donleavy et al. (2018) carry out a study on 68 students from 9 countries on 5 continents to investigate what effects using the direct or indirect format for operating cash flows has on loan decisions and on ratings of various attributes of the cash flow statement. They find that the format has only a minor effect on the loan decision itself, but much more favourable comments on "user friendliness" were received for the direct format.

Ding et al. (2006), however, report that the indirect method can have a significantly greater predictive ability than the direct one when the company's business is volatile, while under stable conditions, there is no predominant method. The authors caution, though, that these findings are based on Chinese companies' sample.

Based on the above discussion, it could be noted that both the direct and indirect methods provide useful information. The direct method is favoured by both, researchers and standard setters, as the direct method of the cash flow statement with supplementary reconciliation of net profit to net cash flow from operations, reap the benefits of both methods and still focus on actual cash flows. Moreover, the direct method is also more understandable (Kutson, 1993, Smith & Freeman, 1996).

However, because of the supposed difficulty and costliness of the use of direct method (Badbury, 2011), standard setters (the FASB and the IASB), permit the use of either direct or indirect method in statement preparation. At the same time, IAS 7 specifically notes that "the direct method provides information which may be useful in estimating future cash flows and which is not available under the indirect method"; while the FASB is more detailed in preference for the direct method by stating that the principle advantage of the direct method is that it shows operating cash receipts and payments. Knowledge of the specific source of operating cash receipts and the purposes for which operating cash payments were made in past periods may be useful in estimating future operating cash flows. The relative amounts

of major classes of revenues and expenses and their relationship to other items in financial statements are presumed to be more useful than information only about their arithmetic sum – net profit – in assessing an enterprise's performance. Likewise, amounts of major classes of operating cash receipts and payments presumably would be more useful than information only about their arithmetic sum – net cash flow from operating activities – in assessing an enterprise's ability to generate sufficient cash from operating activities to pay its debt, to reinvest in its operations, and to make distribution to its owners. Brahmasrene et al. (2004) find in their survey that 82% of CEOs, CFOs and managers prefer the indirect method, as do 70.3% of their sampled investors and analysts. However, they do note that the results could be influenced by the similarity with the method.

Generally, firms prefer the indirect method since pre-recording it takes a lot of time to prepare and adjustments to both cash inflows and outflows are required. Also, the indirect method is less accurate. In the direct method of the cash flow statement, the time for its preparation is less when compared to the indirect method. However, since cash transactions need to be separated from non-cash transactions it will take a relatively large amount of time for bigger companies, which have thousands of transactions on a daily basis. The major disadvantage of the direct method is the consumption of time and difficulty it takes to list all the disbursements and receipts of cash and it is more cumbersome for large companies, which have a large number of transactions almost on a daily basis. Moreover, most companies follow the accrual method of accounting and prepare the balance sheet and income statement on the same basis. Hence, it makes sense preparing the cash flow statement using the indirect method, which uses the accrual method of accounting. Another issue with the direct method is that in the US GAAP, there is a requirement of disclosing the reconciliation of net profit to net cash provided and used in cash flow from operations that needs to be disclosed if the direct method is used to prepare the cash flow statement. Due to this added task that needs to be done, it makes sense for companies to use the indirect method rather than using the direct method. The direct method of composing the cash flow statement is one of the ways in which actual cash flow information is retrieved from the segments of the company's operations and used instead of the accrual accounting values. Although the direct method of composing the cash flow statement has its advantages such as it is more reliable and takes less time to prepare, companies predominantly use the indirect method due to compliance requirements of accounting standards and the consumption of time and difficulty it takes to list all the disbursements and receipts of cash in the direct method. Donleavy et al. (2018) point out that the indirect method also discloses fewer items of commercial sensitivity than the direct method, but it is not an explicitly declared reason.

2.5 Definition and classification issues

2.5.1 Definition issues

Cash flow from operating activities. The key number of the cash flow statement is the net cash from operating activities (NCFOA) or CFO. Reporting cash flows involves classification of cash flows, which enhances the information content of the cash flow statement. According to standard setters, the first objective the cash flow statement is to provide information to help users in assessing the ability of a firm to generate positive cash flows to meet its obligations and to pay dividends. This objective implies distinction in cash flows relating to business activities and cash flows relating to the financing of business activities (debt and equity), which is in line with the financial economics concept. However, a distinction between operating and investing activities is not so clear.

Reported cash flow from CFO is a very important figure, as it is used as a measure of corporate performance. Dechow (1994) notes that external financial report users have difficulty in assessing the reliability of accrual accounting figures produced by management. Even though cash flow figures can be influenced by timing of cash receipts and payments, they are still perceived as something, which can be objectively measured (Dechow, 1994). Cheng et al. (1997) add that the flexibility of accounting principles enables mangers to opportunistically manipulate income, while cash flow operations is less subjective to manipulation, thus it is more reliable. Cash flow from operations is thus extensively used as a performance metric.

Cash flow from operations is also used in financial analysis, and it is part of several financial ratios (Stickney et al., 2007, Stickney, 1997). Stickney (1993) states that the CFO interest coverage ratio is more useful than the traditional profit interest coverage ratio at least in three situations: 1) when a company experiences rapid growth; 2) when a company issues zero-coupon bonds; and 3) when a company has a significant timing difference between pre-tax income and taxable income.

Cash, cash equivalents and overdrafts. Even though cash is often perceived as one of the definite and actual figures on the financial statement, in reality it is often not the case. In legal sense, cash is the money in the pocket or safe, in the form of bank notes and coins. Economists define cash as anything that combines the attributes of a medium of exchange, a store of value and unit of account. Business defines cash much broader. As noted by Wallace and Collier (1991), the business and accounting definition of cash can include:

1) Narrow cash – money available for ordinary use, such as coins and notes.
2) Broad cash – includes also negotiable instruments such as money orders, checks, sight draft, overdraft balances and time deposits.
3) Near cash or cash equivalents – they fulfil the store of value function as defined by economists by being readily convertible into cash but are not cash themselves. For example, they can be marketable securities, cash surrender values of life insurance and treasury bills.

Under the US GAAP, SFAS 95 defines cash as “not only currency on hand but demand deposits with banks and other financial institutions, cash also includes other kinds of accounts that have the general characteristics of demand deposits in that customer can deposit additional funds and may withdraw funds at any time without prior notice of penalty”. Cash equivalents are defined as short-term, highly liquid investments that are both: a) readily convertible into known amounts of cash and b) are so near their maturity that they present insignificant risk of changes in value due to changes in interest rates, and have maturity of three months or less.

The Canadian Institute of Chartered Accountants (CICA) defines cash as cash and cash equivalents, which include highly liquid investments net of short-term borrowings.

The Australian Accounting Standards Board (AASB) defines cash as

a) cash and cash equivalents which are highly liquid investments which are readily convertible to cash on hand at the investors’ option and which a company uses in its cash management function on a daily basis
b) and borrowings which are integral to cash management function and which are not subject to term “facility”.

UK FRS 1 provided the narrowest definition of cash. Originally it included the term “cash equivalents”, but due to confusion, has later separated transaction pertaining to cash equivalents into the new heading “management of liquid resources”.

IAS 7 states that cash comprises cash on hand and deposits with banks. Cash equivalents are defined as short-term highly liquid investments which are readily convertible to known amounts of cash and which are subject to insignificant risk of change in value. In addition,

they are held for the purpose of meeting short-term cash commitments, rather than for investment or other purposes.

As can be seen from the definition only, it gives flexibility for management in terms of cash equivalent definition. There is subjectivity present when classifying short-term investments into cash equivalents or not. For example, some foreign currency denominated cash equivalents might be subject to risk not only from interest rate changes, but from the currency rate change as well. Does it qualify as a cash equivalent then?

Even in a simple situation, companies could be reporting different cash positions. For example, consider a company, which has cash of 200 units, cash equivalents of 2,500 units, a bank overdraft of 500 units and other short-term borrowings of 300 units (see Table 2.3).

Table 2.3. Possible cash positions

Cash items	**Possible cash positions**		
Variants	1	2	3
Cash	200	200	200
Cash equivalents	2,500	2,500	2,500
Bank overdraft	-	(500)	(500)
Short-term borrowings	-	-	(300)
Reportable cash	2,700	2,200	1,900

Source: Wallace &Collier, 1991.

Position 1 is more of the FASB approach, while 2 and 3 were used by the UK, Canada and New Zealand, and have found some way into the IAS 7.

Another issue with cash specific for multinationals is the repatriation rules of subsidiary countries (Wallace and Collier, 1991). If cash remittance from the country is restricted, it by definition might violate the concept of not only of cash but also of cash equivalents, as it is not readily available for use. Alderman and Minyard (1991) note correlation in variations of bank overdraft classification in the cash flow statement depending on the balance sheet treatment. The changes in overdrafts are classified as cash flow from operating activities, if their balance sheet classification is being netted against deposits, and are classified as cash flow from financing activities, if they are reported as borrowing on the balance sheet.

As summed up by Donleavy (1992) while commenting on national differences on cash definition, “the narrower the definition of cash, the sharper focus on liquidity” (pp. 161).

Overdrafts. An increase (decrease) in bank overdrafts represent an increase (decrease) in bank borrowing and should be classified as a financing inflow (outflow) under the direct method of the cash flow statement. Because it is borrowing, overdrafts are also a financing activity from the finance perspective. For bookkeeping convenience, however, some companies record an increase (decrease) in bank overdrafts as an increase (decrease) in accounts payable, and then adjust net profit by the change in accounts payable while deriving NCFOA under the indirect method. Mulford and Comiskey (2005) provide numerous examples of companies using it to improve NCFOA. Alderman and Minyard (1991) note variations in overdraft classification in the cash flow statement, depending on their balance sheet treatment. Changes in overdrafts are included in operating activities, if overdrafts are netted against deposit accounts with positive balances, but are included in financing activities, if overdrafts are treated as borrowings.

Treatment of overdrafts is different at the standard setting level. The US ASC 230 requires to classify it as a financing cash flow, while IAS 7 allows classifying an overdraft as a cash equivalent, if it is repayable on demand and constitutes the company’s cash management.

2.5.2 Classification issues

Operating activities. One of the issues still facing the IASB in the efforts to converge global accounting standards is the possibility of alternative presentation, recognition, measurement and disclosure practices. While flexibility in accounting practices does allow companies to represent events and transactions more faithfully, it also affects the comparability of the information presented. According to IAS 7, the cash flow statement helps to increase the comparability of business performance by decreasing the use of different accounting treatments for the same transactions and events. Moreover, as one of the main advantages of the statement is stated to be increased comparability among different companies in terms of presentation of the operating performance of plant assets.

Reporting of cash flows requires their classification, because it enhances the information content of the cash flow statement. According to both IAS 7 and SFAS 95 activities for the cash flow statement are classified as follows:

Operating activities are the main revenue producing activities of the entity, and include cash received from customers and cash paid to suppliers and employees (IASB, 2016). According to SFAS 95, operating activities are defined similarly as all transactions and events other than investing and financing activities.

Investing activities are the acquisition and disposal of long-term assets and other investments that are not considered to be cash equivalents (IASB, 2016). According to SFAS 95, investing activities include acquiring and disposing of plant and other productive assets and financial investments, and making and collecting loans to other enterprises.

Financing activities are activities that alter the equity capital and borrowing structure of the entity (IASB, 2016). According to SFAS 95, financing activities include obtaining resources from owners and providing for them with a return on their investment, borrowing money and repaying the amounts borrowed, and obtaining and paying for other resources from creditors in the long-term.

The rationale for this three-way classification was originally proposed in the FASB's ED in 1981, which stated that investors and creditors consider the relationships among certain components of cash flow to be important to the analysis of financial performance. It has attempted to link related cash flows. Actually, each cash inflow and outflow can be also classified according to its nature, and this is where some inconsistencies arise. For example, management might decide to sell property when its value is high and use proceeds to repay debt. Under SFAS 95 and IAS 7, cash inflow from sale of property is investing inflow, even if the proceeds are specifically intended for debt repayment, whereas debt repayment is financing outflow. It must also be noted that cash flows may be related to more than one category of activities, in which case the predominant source of cash should determine classification, leaving room for management interpretation. For example, a company purchases equipment which either is used by it or is rented out, and such investment should be recorded under investing activities. However, if the same equipment is purchased with the intention to use it, rent it and later sell it, then it should be reported under cash flows from operating activities. The concept of the predominant source of cash flow as a basis for classification, in such case, becomes arbitrary.

The major problem with the above classification is its arbitrariness, as noted from the original discussions on inception of the idea of the cash flow statement. From the finance perspective, purchases of inventory and plant assets are fundamentally alike, yet payments are classified as operating and investing cash outflows. Likewise, from the finance perspective, payments to suppliers and creditors are fundamentally alike, yet classified as operating and financing activities. The reason for different treatment was the frequency of transactions and their effect on the capital structure of the company: payment of accounts payable is a short-term decision, while loans are usually long-term and have an effect on

capital structure (Heath, 1978). However, this view is based on the assumption that purchase of merchandise always involves a current liability. In addition, it assumes that report users are interested only in the capital structure of the company, which excludes current liabilities. Nevertheless, what about the situations when purchases of merchandise result in a long-term liability or users who look at the capital structure including all liabilities? The issue of classification between investing and financing activities is to some extent defined by the requirement to classify transactions as to causes. Consequently, a cash receipt from the sale of an asset is an investing inflow, even if the proceeds are fully used to repay debt. Similarly, cash receipts from borrowing are a financing inflow, even if they are entirely used to purchase plant assets.

It should also be noted that subtitles such as NCFOA, Net Cash from Investing Activities (NCFIA) and Net Cash from Financing Activities (NCFA) ignore the substitutability of cash, because in THE economic sense cash is completely interchangeable. Cash collected from customers is completely interchangeable with cash collected from selling a plant or issuing bonds. In the same way, operating activities might be financed by cash generated from investing or financing activities, or outflows for investing and financing activities might be financed by cash generated by operations. For a meaningful analysis, both inflows and outflows should be clearly defined.

Pinto et al. (2018) argue that the options of classification allowed under IAS 7 hinder comparability among companies and affect the relevance of accounting information and decision-making. Their empirical study is based on 354 listed Brazilian companies and using H-index, the authors find a high level of comparability for the classification of interest income, moderate for dividends paid, and low for interest expenses, tax expenses and dividends received.

Interest classification. The US GAAP requires classification of interests paid and interests received as part of operating cash flows. IAS 7, on the other hand, gives account preparers more flexibility and allows to classify interests paid and received as either operating, investing or financing activity, provided they are classified consistently from period to period (IASB, 2016). The standard provides alternatives that interests and dividends paid may be classified as operating or financing cash flows and interests and dividends received may be classified as operating or investing flows. IAS 7 also recognizes the difference between financing and non-financing companies and requires that interest payments by financial companies be classified as either operating or financing outflows, while non-financial companies have the flexibility of classifying them over any of cash flow statement activities: operating, investing or financing.

Interests paid. Finance literature lays emphasis on the similarity of dividend and interest payments for non-financial companies – they are both payments for financing, interests for debt, while dividends for equity capital. Interest payments are consequently a result of a financing decision, thus by nature are a financial outflow from the company perspective (Nurnberg, 1993; Nurnberg & Largay, 1998). On other hand, interest payments for working capital can be viewed from a different perspective. If debt is used for short-term activities, such as outflows for wages, inventory, rent, its interest cost is actually an operating activity. From the financial accounting perspective, cash outflows to wages, inventories, rent, and plant assets are made to generate future economic benefits. Usually, benefits from outflows for wages, inventories and rent occur in the short term, while benefits from plant assets occur over several accounting periods (of course, with some exceptions, for example benefits from low turnover inventories can occur over several accounting periods, why benefits from a short-lived plant asset can result in one period). The issue in income reporting for those outflows is whether they are expensed or capitalized, while in cash flow reporting the issue is whether they are classified as operating or investing activities (Nurnberg, 1993).

The position of the FASB has been that "operating cash flows should, insofar as possible, include items whose effects are included in determining net income to facilitate an understanding of the reasons for the difference between net income and net cash flow from operating activities" (Nurnberg &d Largay, 1998) and because of the inclusion concept as interest income and expenses are part of the income statement in the determination of net income, they should be classified as operating cash flows.

SFAS 95 allows classifying uncapitalized interest as an operating activity, while the capitalized one as investing outflows, even though both those interest outflows are a result of the company's decision to finance with debt. According to Nurnberg and Largay (1998) this only leads to further confusion for statement users, as it makes it impossible to comprehend the actual amount of interests paid by the company. Munter and Moores (1992) show that two companies with identical lease payments can report different amounts of CFO if one capitalizes interests or lease payments, and the other does not.

Nurnberg and Largay (1998) point out that SFAS 95 provision or classifying capitalized interest as an investing outflow is rather vague, as it does not provide specific guidance for measuring operating and investing activities. They provide the following example (see Table 2.4) to illustrate the flexibility present under such treatment.

Table 2.4. Possible interest payment classifications under current standards

Situation: Interest cost of 30,000, including 3,000 of accrued interest or discount amortization and 27,000 interest payments. Of the 30,000 2/3 are expensed and 1/3 is capitalized as plant assets.			
	Operating CF	**Investing CF**	**Total**
Method 1. Proportional allocation	18,000	9,000	27,000
Method 2. Minimize operating cash flow	17,000	10,000	27,000
Method 3. Maximize operating cash flow	20,000	7,000	27,000

Source: Nurnberg & Largay, 1998.

Nurnberg and Largay (1998) note that companies seem to favour method 2, reporting all capitalized interest as investing outflow, as it allows to minimize the negative effect on operating cash flows, but also note that very few companies provide sufficient disclosures in their annual reports to confirm the method used and the actual reconciliation calculations. In order to enhance comparability across companies, there should be either only one method allowed or more detailed disclosure requirements, so that to reduce opportunistic behaviour by management to manipulate NCFOA by allocating interest payments between operating and investing activities.

Conceptually, interest capitalization is an asset valuation concept and relates to income reporting, not cash flow reporting. Moreover, by allowing flexibility to include some of the interest in NCFOA and some in NCFIA undermines the very essence of distinction between operating, investing and financing activities. This can be well seen in resulting in four alternative methods to repot cash flows from bonds issued at a discount or premium, which is discussed in detail in section 1.7.16.

Interest payments sometimes have material significance on the reported CFO and CFI, thus they should be noted by users of financial reports (Nurnberg and Largay, 1998). The authors have called for full disclosure reporting for interests paid, which would disclose (1) the amount of interest cost incurred, (2) the amount expensed, (3) the amount capitalized, (4) the amount paid, and the proportions of the amount pair reported as (5) operating and (6) investing outflows. IAS 7 addresses this issue partially, by requiring a separate disclosure line in the cash flow statement – interests paid. Due to this full disclosure requirement, NCFOA and NCFFA can be indeed adjusted for comparison between different firms. Munter and Moores (1992) noted several variations in classification of interest payments in the cash

flow statement when total interest costs differs from total interests paid and some interest cost is capitalized.

Interests received. SFAS 95 classifies interests received and dividends received as operating inflows. The IASB on the other hand, makes a distinction between financial and non-financial companies in the classification of interest and dividend inflow. Financial firms must classify them as an operating inflow, while non-financial ones can classify them as either operating or investing inflows. Under both SFAS 95 and IAS 7, companies themselves decide between trading and non-trading activities, depending how each company is managing its security holdings. Consequently, different companies can establish different boundaries for identical transactions, based on different management policies and intentions. Thus, identical cash flows from the purchase or sales of identical securities can be classified differently by companies in their cash flow statements, which in its turn reduces comparability.

It could be argued that varying treatment provides more precise reporting for each company. From financial reporting perspective, since companies obtain debt and equity securities with the intent to resell them at a profit in the short term, and such securities are trading securities, thus their purchase and sale are operating activities, not investing. From the finance perspective, such a purchase of trading securities is similar to the purchase and sale of inventory. Accordingly, they are operating activities, and outflows for purchase and proceeds from sale, interest and dividend collection should be reported under cash flows from operating activities. It is so under SFAS 95, but not IAS 7.

Other companies acquire debt and equity securities with the intent to hold them for the intermediate or long-term and benefit from a positive net present value, dividend and interest income. Those securities are non-trading, and their purchase and sale are reflected in investing activities, not operating. Therefore, outflows and inflows relating to those transactions should be reported under investing activities, not operating. IAS 7 allows this flexibility, though it does not prescribe this specific logic. SFAS 95, on the other hand, requires classification of interest and dividend income as an operating cash inflow. The logical reasoning provided is that such investments are similar to investments in plant assets, where outflows are reported as investing outflows, proceeds from sale are reported as investing inflows and inflow from their use – as operating inflows. For example, rental property: purchase of property is investing outflow, sale of the property is an investing inflow, while rental income is an operating inflow. Weiss and Yang (2007) also note that although the accounting profession talks about the importance of comparability of financial information, the fact that interest flows are treated as an operating activity and dividends paid as a financing activity, makes it impossible to compare companies with different financing choices. As a result, the analysts have resorted to their own measures, such as EBITDA for comparisons. See Table 2.5 for interest classification.

Table 2.5. Interest classification

Classification	Operating activity	Investing Activity	Financing Activity
Interest Received			
US GAAP	X		
IAS 7	X	X	
Interest Paid			
US GAAP	X		
IAS 7	X		X

Source: compiled by the author from ASC 320 and IAS 7.

Dividend classification. Under SFAS 95, classification of dividends in the cash flow statement does not make a distinction between financial and non-financial companies. The US GAAP requires classification of dividends received as part of operating cash flows and dividends paid as financing outflows. Standard setters' argument is that dividend payments are made for the use of equity capital, thus they are financing outflows because they are direct consequences of a decision to finance with equity capital.

IAS 7, on the other hand, gives account preparers more flexibility and allows to classify dividends received and paid as either operating, investing or financing activity, provided they are classified consistently from period to period (IASB, 2016). Here standard setters' reasoning was that dividend payments can be classified as financing outflows because they are made to obtain financial resources, or they can be classified as operating outflows in order to help the users to estimate the company's ability to cover dividend payments from operating cash flows. In accordance with the full disclosure concept, IAS 7 requires separate disclosure of interests and dividends paid as a separate line, so that users can readjust cash flows. Nurnberg (1993) argues that such treatment lacks theoretical justification and moves classification from the field of financial reporting into financial analysis. From the finance theory perspective, dividend payments are indeed financial outflows and must be classified accordingly (Nurnberg, 1996).

SFAS 95 classifies interests received and dividends received as operating inflows. However, from the financial perspective, dividends are returns ***of*** investment, not returns ***on*** investment, thus should be classified as investing inflows, not operating (Nurnberg, 1993). The IASB on the other hand, makes a distinction between financial and non-financial companies in the classification of interest and dividend inflow. Financial firms must classify them as an operating inflow, while non-financial ones can classify them as either operating or investing inflows. Weiss and Yang (2007) note that the treatment of dividends received can cause significant distortions in operating cash flows if they are classified as operating rather than investing flows. When significant investments are made in an affiliate, the parent company has a power of manipulating its own cash flows by increasing dividends received from subsidiaries and classifying them as operating cash inflows. Moreover, dividend income originates from an investment, so if dividends received are in the operating section while investment is in the investing, a financial statement user might not be able to understand the overall investment strategy and returns (see Table 2.6).

Table 2.6. Dividend classification

Classification	Operating activity	Investing Activity	Financing Activity
Dividends Received			
US GAAP	X		
IAS 7	X	X	
Dividends Paid			
US GAAP	X		
IAS 7	X		X

Source: compiled by the author from ASC 320 and IAS 7.

Income taxes. SFAS 95 requires income tax payments to be classified as an operating cash outflow, regardless of the fact where those taxes originate. Some of the income tax is pertaining to regular operations, resulting in taxable profit, while some can be relating to gains and losses on investing and financing activities, such as a disposal of a plant asset or early debt retirement.

Nurnberg (2003) and Weiss and Yang (2007) propose that exclusion of income tax effects relating to non-operating activities from cash flow from the operations section would allow for more precise cash flow calculation. Consistent with the matching principle, Nurnberg

(2003) claims that allocating income taxes in the cash flow statement would result in reporting NCFOA, which is not contaminated by tax effects of non-operating transactions, as tax effects of those transactions, would be reported in the same section of the cash flow statement as the transactions themselves.

Despite the regulation, some companies in the United States make voluntary disclosures in their annual report. For example, Sinclair Broadcast Group, Inc. explains in the management discussion and analysis section that 69.1 million USD reported NCFO for year 2000 is after the deduction of 115,000,000 USD of income tax payments on the sale of its radio assets, the proceeds from which were recorded in the investing section of cash flows (Nurnberg, 2003). Moreover, some companies violate the prohibition of income tax allocation and do allocate income tax according to its economic effects. For example, in the year 2000, Dusquesne Light Company reported 1,547 million USD income from sales of assets net of federal income tax under the investment section (Nurnberg, 2003). What is misleading to the analyists is the fact there is no separate disclose about the fact, and only the term "net" should indicate that cash flows are after tax. Such disclosure allows report users to evaluate non-operating tax effects on NCFO, but as with the majority of voluntary disclosures, there is a risk of selective application: namely, the management would choose to report the tax effects of non-operating gains, but not losses.

In contrast to the US GAAP, IAS 7 allows the possibility of allocating tax payments or recoveries as investing and financing activities. However, the setters also recognize possible practical difficulties in tracing them, because while tax expenses might be identifiable with investing or financing activities, the relating cash flow might occur in different accounting periods or be netted with other transactions for the period. Therefore, even though it sounds good in theory, in practice such tracing might be challenging. However, if gains and losses from investing and financing activities are significant and are not traced, the resulting cash flow from operations is not a sustainable and useful figure for decision-making.

At a more conceptual level, intra-period tax allocation on the cash flow statement ignores the fundamental difference between the income statement and cash flow statement. The purpose of the income statement is to report periodic net profit consistent with the transaction approach and matching concept. Periodic net profit equals revenues and gains minus expenses and losses, measured in accordance with the accrual basis accounting. However, the purpose of the cash flow statement is to report actual inflows and outflows for the period on a cash basis, and to classify actual cash flows into three categories, it should provide feedback of actual cash flows, which allocated tax is not. According to Kirschenheiter (2004), reporting hypothetical cash flows that would or would not have occurred if related transactions would have or have not occurred, is a departure from the basic objective of the cash flow statement of reporting actual cash flows. Nurnberg (2003) also notes that there is no explicit guidance for reporting tax refunds, and as a result, income tax payments may be reported as either gross or net of income tax refunds. According to Mulford and Cosmiskey (2005) this distinction is important for report users, as income tax payments are recurring if taxable income is recurring, whereas income tax refunds are non-recurring items. Accordingly, income tax refunds are more temporary and gross disclosure of income tax refunds separately from income tax payments is more informative than the net figure.

2.6 Recording/presentation options

Acquisitions and dispositions. Cash flow from operations might increase or decrease as a result of business acquisitions and dispositions, even though they are investing activities. There is some evidence (Amihud & Lev, 1981, Morck et al. 1988) that management structures transactions, including business acquisitions and dispositions, to benefit itself rather than corporations. Such structuring is difficult to document due to lack of data (Nurnberg, 2006). Maremont (2002) provides evidence on how Tyco Company has directed acquired companies to prepay operating expenses to lower earnings and cash flow before the closing dates of acquisitions in order to improve combined earnings and cash flow from operations after acquisitions. In addition, there is an extensive evidence from prosecutions, that some investment banks have devised and marketed complex financial derivative transactions to boost client net profit and CFO (Nurnberg, 2006).

Acquisitions. For cash acquisitions, classification rules in the cash flow statement require a company to report investing outflow for the amount of cash paid to purchase a business, including the portion of payment attributable to operating receivables and inventories acquired, less operating liabilities assumed. The following example (see Table 2.7) would be used to explain the effect of such a transaction on the cash flow statement.

According to SFAS 95 and IAS 7, the acquisition should be presented as a single line item among the investing activities of Company M cash flow statement, as: Payment for purchase of Company S, net of $25 cash acquired ($925).

According to SFAS 95 and IAS 7, post-acquisition CFO increase due to acquisition when the acquired operating assets exceed the assumed liabilities. The cash payments for acquisitions are investing outflows, while cash inflows from the acquired receivables and cash payments for the assumed liabilities are later recorded as operating cash flows. Such treatment is also not in parallel with the income reporting rules after acquisition (Nurnberg, 2006).

Dispositions/discontinued operations. According to SEC, three approaches are allowed for the treatment of discontinued operations in the cash flow statement: 1) combine cash flows from a discontinued operation into each of the three categories, 2) separate cash flows from a discontinued operation into each of the three categories, 3) display cash flows from a discontinued operation below the three ordinary categories, just before the line of net increase/decrease (Vito, 2013). Hollie et al. (2011) showed that firms which used the opportunity for the re-statement waive in February 2006, had an average of 50.3% decrease in cash flows from operating activities, 22.3% increase in investing activities and only 2.55% decrease in financing cash flows. The results showed that companies were overstating operating cash flows and understating investment cash flows. Most of the corrections were in the treatment of discontinued operations and dealer floor plan financing arrangements, while insurance claim proceeds and securitized loans warranted fewer restatements.

Table 2.7. Classification of acquisitions under current standards

Company M purchases all the shares of Company S for $950, followed by the merger of company S into company M.		
Net assets of acquisition/disposition	***Acquisition***	***Disposition***
Cash	25	25
Accounts receivable	155	155
Inventory	350	350
Property, plant and equipment	900	900
Patents	80	80
Fair value of identifiable assets acquired	1,510	1,510
Accounts payable and accrued expenses	(255)	(255)
Other accrued costs		(375)
Long-term note payable	(375)	
Fair value of liabilities assumed	(630)	(630)
Fair value of net identifiable assets acquired	***880***	***880***
Cost	950	
Proceeds from sale		750
Goodwill on acquisition	70	
Loss on disposition		130
Effect on CFO for buyer/seller net current assets (excluding cash) of acquisition/disposition		
Accounts receivable	155	155
Inventory	350	350
Accounts payable and accrued expenses	(255)	(255)
Other accrued costs		(375)
Net inflow due to acquisitions	250	
Net outflow due to disposition		(125)

Source: Nurnberg, 2006.

Discontinued operations could be reported separately from continuing operations under the section of cash flows from operations. SFAS 95 discourages distinguishing between continued and discontinued operations in the cash flow statement. Ernst & Whiney (1988) have also advocated a similar treatment of acquisitions and dispositions in the cash flow statement. It should be noted that by reporting a business disposition as a single investing cash inflow, the operating cash flow increases due to transferring operating liabilities relating to the disposition, rather than paying for them. By transferring those operating liabilities to the buyer, the seller avoids payment for them that would be classified as operating outflows.

Nurnberg (2006) suggest that more detailed disclosure requirements for the book value of total assets sold and total liabilities transferred could provide a solution and help financial report users evaluate effects of material acquisitions/dispositions on net operating cash flow.

Non-cash transactions. Bad debt provisions. Bad debt provisions are an accrual transaction to reflect the economic risk of non-collection of sales money, as estimated by the management. The transaction increases the expense amount and a contra asset account. As it is a non-cash transaction, its treatment in the cash flow statement is not very clear, especially under the indirect method. Similarly to depreciation, as it is a non-cash expense, it should be added back to net profit under the operating section. However, this adding back is rather confusing, as corrected accounts receivable do not equal the same change in the Balance Sheet (Nurnberg, 1996).

Nurnberg (1996) has suggested three possible alternatives for reporting, depending on conceptual views on provisions. If provisions are treated as revenue deductions, like sales discounts, returns and allowances, rather than a non-cash expense, a simple change in net accounts receivable would be reported in the cash flow statement. Under such a method,

bad debt provisions are an integral part of accounts receivable. Under the second alternative, Nurnberg (1996) proposes using more detailed approach and recording changes in both gross accounts receivable and changes in bad debt allowance as separate lines in the cash flow statement. Such treatment would provide more information content for professional investors but might be rather confusing for investors with no accounting background. A third alternative would be to adjust net profit for bad debt provision and changes in accounts receivable. However, as noted by Nurnberg (1996) this is potentially the most confusing option. Table 2.8 illustrates those three proposed scenarios.

Table 2.8. Bad debts in reconciliation of net income to cash flows from operations (in dollars)

Balance Sheet	**12-31-x1**		**12-31-x2**
Accounts receivable	50,000		30,000
Allowance for uncollectible accounts	(10,000)		(5,000)
Inventories	85,000		90,000
Accounts payable	50,000		40,000
Accrued expenses payable	17,000		15,000
Income Statement			**19x2**
Sales			370,000
Gain on sale of plant and equipment			15,000
Cost of goods sold			165,000
Depreciation expense			25,000
Bad debt expense			20,000
Other expenses			145,000
Bad Debts in Reconciliation of Net Profit to Net Cash Flows from Operations			
	Alternative A	**Alternative B**	**Alternative C**
Net Profit	30,000	30,000	30,000
Add non-cash expenses:			
Depreciation expense	25,000	25,000	25,000
Bad debt expense			20,000
Deduct non-operating gains:			
Gain on sale of plant and equipment	(15,000)	(15,000)	(15,000)
Add (deduct) changes in non-cash operating working capital:			
Increase in accounts receivable – **net**	(15,000)		
Increase in accounts receivable – **gross**		(20,000)	
Increase in accounts receivable			(35,000)
Increase in allowance for uncollectible accounts		5,000	
Decrease in inventories	5,000	5,000	5,000
Increase in accounts payable	10,000	10,000	10,000
Increase in accrued expenses payable	2,000	2,000	2,000
Net cash inflows from operating activities	**42,000**	**42,000**	**42,000**

Source: Nurnberg, 1996.

Depreciation. Nurnberg (1998) has examined the issue of the treatment of depreciation in the cash flow statement, with a special focus on manufacturing companies. Specifically, should depreciation adjustment contain the amount of depreciation incurred or the amount of depreciation expensed? For manufacturing companies, depreciation of plant and equipment is capitalized at the time of production as part of the cost of work-in-progress and finished goods inventory, and is expensed as part of goods sold at the time of sale. The issue is especially significant in capital-intensive industries, such as chemicals, oil refineries, gas, petrol manufacturers. Drtina and Largay (1985) have provided a simple and clear example of the effects of depreciation treatment (see Table 2.9).

Table 2.9. Depreciation treatment under current standards (in dollars)

Assumptions		
1. Schedule of changes in finished goods inventory, units		
Beginning balance	1,000	
Produced	5,000	
Available	6,000	
Sold	(4,000)	
Ending balance	2,000	
2. Cost of goods manufactured, per unit		
Variable cost – direct materials, direct labour, variable overhead		2.00
Fixed costs – all depreciation (5,000 / 5,000 units)		1.00
Total unit cost		3.00
3. Work in process: no change		
Calculations		
Cash flows from operations – direct method		
Cash receipts: Sales (all cash) 4,000 units × 5.00		20,000
Cash payments: (5,000 units produced × 2.00 manufacturing variable cost)		(10,000)
Net cash flow from operations:		**10,000**
Cash flow from operations – indirect method		
Sales revenue (4,000 unit × 5.00)	20,000	
Cost of sales (4,000 units × 3.00)	12,000	
Net profit	8,000	
Net profit		8,000
Add depreciation expense (4,000 units × 1.00)		4,000
Less increase in inventory (1,000 units × 3.00 unit cost)		(3,000)
Net cash flow from operations		**9,000**

Source: Drtina &Largay, 1985.

As can been from the above example, under the direct and indirect method different amount of depreciation is used, as under the indirect method the depreciation expense is added back, while capitalized depreciation remains in the inventory account.

From the practical point of view, investors would hardly be able to recalculate those amounts, as the change in the value of inventory including capitalized depreciation is available in the balance sheet, while the one without is not. As an alternative solution, Nurnberg (1989) proposes including a disclosure requirement specifying whether adjustment for depreciation in the cash flow statement is for the amount incurred or the amount expensed.

Effects of capitalization. The capitalization process under accrual accounting is meant to spread the cost of resources over their useful life, costs are written off gradually. When an expense is capitalized, an asset is recorded and later it is expensed through depreciation. At the time of recording, there is a negative effect on cash flows, but they are recorded under investing activities, not operating while the subsequent write-off is increasing operating activities via depreciation added back.

Certain types of expenditure, like purchases of manufacturing equipment, do warrant capitalization because they are an investing activity. However, capitalization becomes questionable if expenses are regular production expenses, and consequently should be reflected in the operating cash flows of the company. When regular expenses are capitalized, they are recorded not as production expenses in the income statement, but as negative cash flows from investing activities. Which in its turn overstates the net operating cash flow, as those deductions are missing. Broome (2004) reports that Adlephia Corportion and WorldCom have used aggressive capitalization of labour expenses incurred for installing cables, totalling 40 million, and treating them as investment outflows.

Financing of receivables. Treatment of financing receivables is another potential distortion for cash flows from operations. At the inception of the cash flow statement, receivables were financed through borrowing, with receivables pledged as collateral and the money received was classified as financing activities. In recent years, however, there has been a big trend for off-balance sheet financing, meaning sale of receivables with recourse or without recourse. Economically, the transaction is still the same, but under the accounting rules it can be now classified as an operating activity due to a decrease in receivables. The dual benefit for companies comes from the fact that such transactions allow to keep borrowing off balance sheet and boost cash flow from operations.

Reclassification of current assets. A problem might arise when assets are reclassified from long-term into short-term, based on their maturity date. The reclassification is reflected in the balance sheet, but there would not be a change in cash flows. If only a mathematical approach for adding/subtracting a change in receivables used, the reported CFO would be incorrect, if reclassification is present. Drtina and Largay (1985) illustrate it with the following example. A two-year trade note receivable is dated July 1, 19X4 and is due on June 30, 19X6. Sales revenue relating to this receivable is recorded in 19X4. On 31st December 19X4, this receivable would be classified as long-term, but on 31st December 19X5, it would be reclassified as current, as it is maturing within one year. By using the indirect method for the presentation of the cash flow statement, there would be an increase in receivables, which will be subtracted from operating cash flows. The general understanding would be that sales in 19X5 were not collected, but actually, the sales were recorded already in 19X4, and as the note receivable was long-term, it was not included in the income adjustment to cash flow. As a result, reports for both 19X4 and 19X5 reports would be incorrect (Drtina & Largay, 1985, p. 325)

Long-term debts: long-term bonded debt. SFAS 95 states that repayments of amounts borrowed are financing outflows, while payments to lenders and other creditors for interest are operating outflows. Over the life of a bond, this provision results in different total inflows and outflows from financing activities, if bonds are issued at a discount or premium, with offsetting differences between total interest expense and total interest outflows.

Vent et al. (1995) in their study have identified four different interpretations of SFAS 95 when classifying cash flow from long-term debt, which lead to rather different cash flows. Stewart et al. (1988), Nurnberg and Largay (1998) also note that although they could be treated as elements of operating cash flows, premiums and discounts on bonds should be classified as cash flows from investing and financing activities respectively. The illustrative example was a $10,000 bond, 10% stated interest rate, issued on 1 Jan 1993 with a maturity of 4 years. Each method was demonstrated with a bond issue at a $2,000 premium and $2,000 discount.

Alternative 1: no allocation to individual cash flows. Under this method, proceeds of $8,000 are reported for discounted bond cash inflow under financing activities, and $10,000 maturity value outflow as a financing activity. The main advantage of this method is its simplicity, which makes it the most popular (Vent et al., 1995). It is the only method where operating interest flows are based on nominal interest payments. In the long run, this method allows companies with a discounted bond to report higher operating cash flows (see Table 2.10).

Table 2.10. Alternative 1 of long-term debt treatment (in dollars)

4-year, 10,000 bond, 10% rate, issued at discount, proceeds 8,000					
Time period	**Interest expense in income statement**	**Indirect method adjustment to net profit**	**Operating cash flows**	**Financing cash flows**	**Actual total cash flows**
01/93	0	0	0	8,000	8,000
12/93	(1,500)	500	(1,000)	0	(1,000)
12/94	(1,500)	500	(1,000)	0	(1,000)
12/95	(1,500)	500	(1,000)	0	(1,000)
12/96	(1,500)	500	(1,000)	0	(1,000)
12/96	0	0	0	(10,000)	(10,000)
Total:	**(6,000)**	**2,000**	**(4,000)**	**(2,000)**	**(6,000)**
	Interest expense		**Cash interest**		**Net cash flow**

4-year, 10,000 bond, 10% rate, issued at premium, proceeds 12,000					
Time period	**Interest expense in income statement**	**Indirect method adjustment to net profit**	**Operating cash flows**	**Financing cash flows**	**Actual total cash flows**
01/93	0	0	0	12,000	12,000
12/93	(500)	(500)	(1,000)	0	(1,000)
12/94	(500)	(500)	(1,000)	0	(1,000)
12/95	(500)	(500)	(1,000)	0	(1,000)
12/96	(500)	(500)	(1,000)	0	(1,000)
12/96	0	0	0	(10,000)	(10,000)
Total:	**(2,000)**	**(2,000)**	**(4,000)**	**(2,000)**	**(2,000)**
	Interest expense		**Cash interest**		**Net cash flow**

Source: Nurnberg and Largay, 1998.

Alternative 2: allocation of the maturity payment. Under this method, instead of considering full maturity payment as a financing cash outflow, the final payment is divided between financing activity flows equal to the issue value and the difference going into operating cash flows. This method has also been supported by Nurnberg (1993). Under this method, the effective interest rate is reported in the operating cash flows, and also favours discounted bond issuers as it allows to report higher operating cash flow (see Table 2.11).

Table 2.11. Alternative 2 of long-term debt treatment (in dollars)

4-year, 10,000 bond, 10% rate, issued at discount, proceeds 8,000					
Time period	**Interest expense in income statement**	**Indirect method adjustment to net profit**	**Operating cash flows**	**Financing cash flows**	**Actual total cash flows**
01/93	0	0	0	8,000	8,000
12/93	(1,500)	500	(1,000)	0	(1,000)
12/94	(1,500)	500	(1,000)	0	(1,000)
12/95	(1,500)	500	(1,000)	0	(1,000)
12/96	(1,500)	500	(1,000)	0	(1,000)
12/96	0	(2,000)	(2,000)	(8,000)	(10,000)
Total:	**(6,000)**	**0**	**(6,000)**	**0**	**(6,000)**
	Interest expense		**Cash interest**		**Net Cash flow**

4-year, 10,000 bond, 10% rate, issued at premium, proceeds 12,000					
Time period	**Interest expense in income statement**	**Indirect method adjustment to net profit**	**Operating cash flows**	**Financing cash flows**	**Actual total cash flows**
01/93	0	0	0	12,000	12,000
12/93	(500)	(500)	(1,000)	0	(1,000)
12/94	(500)	(500)	(1,000)	0	(1,000)
12/95	(500)	(500)	(1,000)	0	(1,000)
12/96	(500)	(500)	(1,000)	0	(1,000)
12/96	0	2,000	2,000	12,000	(10,000)
Total:	**(2,000)**	**0**	**(2,000)**	**0**	**(2,000)**
	Interest expense		**Cash interest**		**Net Cash flow**

Source: Nurnberg & Largay, 1998.

Alternative 3: Allocation of interest payments. Under this method, the proceeds and maturity payments are fully recorded as financing flows, while interest payments are allocated between the operating and financing sections. Similar to Alternative 2, operating cash flows reflect the effective interest rate. Stewart et al. (1988) advocate this method as the one most consistent with SFAS 95, as it reports smooth interest. Moreover, it considers the conceptual approach that the original issue price is the principal amount on which interest accrues, and while periodic interest payments either exceed or are smaller than interest expenses, the difference is adjusted into financing outflows (see Table 2.12).

Table 2.12. Alternative 3 of long-term debt treatment (in dollars)

4-year, 10,000 bond, 10% rate, issued at discount, proceeds 8,000					
Time period	**Interest expense in income statement**	**Indirect method adjustment to net profit**	**Operating cash flows**	**Financing cash flows**	**Actual total cash flows**
01/93	0	0	0	8,000	8,000
12/93	(1,500)	0	(1,500)	500	(1,000)
12/94	(1,500)	0	(1,500)	500	(1,000)
12/95	(1,500)	0	(1,500)	500	(1,000)
12/96	(1,500)	0	(1,500)	500	(1,000)
12/96	0	0		(10,000)	(10,000)
Total:	**(6,000)**	**0**	**(6,000)**	**0**	**(6,000)**
	Interest expense		**Cash interest**		**Net Cash flow**

4-year, 10,000 bond, 10% rate, issued at premium, proceeds 12,000					
Time period	**Interest expense in income statement**	**Indirect method adjustment to net profit**	**Operating cash flows**	**Financing cash flows**	**Actual total cash flows**
01/93	0	0	0	12,000	12,000
12/93	(500)	0	(500)	(500)	(1,000)
12/94	(500)	0	(500)	(500)	(1,000)
12/95	(500)	0	(500)	(500)	(1,000)
12/96	(500)	0	(500)	(500)	(1,000)
12/96	0	0	0	(10,000)	(10,000)
Total:	**(2,000)**	**(2,000)**	**(2,000)**	**0**	**(2,000)**
	Interest expense		**Cash interest**		**Net Cash flow**

Source: Nurnberg & Largay, 1998.

Alternative 4: Allocation of proceeds. Under this method, the proceeds of the issue are allocated between the financing activities for the face value and operating activities for the discount or premium. Similar to Alternative 2, interest in the cash flow statement is treated in the same way as in the income statement. Under this approach, the discount is viewed as prepayment of interest, so it should be reported under the operating cash outflow. While the premium is the opposite, it can be treated as prepaid interest received and has to be reported as an operating cash inflow (see Table 2.13).

Table 2.13. Alternative 4 of long-term debt treatment (in dollars)

4-year, 10,000 bond, 10% rate, issued at discount, proceeds 8,000					
Time period	**Interest expense in income statement**	**Indirect method adjustment to net profit**	**Operating cash flows**	**Financing cash flows**	**Actual total cash flows**
01/93	0	(2,000)	(2,000)	10,000	8,000
12/93	(1,500)	500	(1,000)	0	(1,000)
12/94	(1,500)	500	(1,000)	0	(1,000)
12/95	(1,500)	500	(1,000)	0	(1,000)
12/96	(1,500)	500	(1,000)	0	(1,000)
12/96	0	0	0	(10,000)	(10,000)
Total:	**(6,000)**	**0**	**(6,000)**	**0**	**(6,000)**
	Interest expense		**Cash interest**		**Net Cash flow**

4-year, 10,000 bond, 10% rate, issued at premium, proceeds – 12,000					
Time period	**Interest expense in income statement**	**Indirect method adjustment to net profit**	**Operating cash flows**	**Financing cash flows**	**Actual total cash flows**
01/93	0	0	2,000	10,000	12,000
12/93	(500)	0	(1,000)	0	(1,000)
12/94	(500)	0	(1,000)	0	(1,000)
12/95	(500)	0	(1,000)	0	(1,000)
12/96	(500)	0	(1,000)	0	(1,000)
12/96	0	0	0	(10,000)	(10,000)
Total:	**(2,000)**	**(2,000)**	**(2,000)**	**0**	**(2,000)**
	Interest expense		**Cash interest**		**Net Cash flow**

Source: Nurnberg & Largay, 1998.

All four alternatives are acceptable under accounting laws and have their own advantages and disadvantages and have been found in practice (Vent et al., 1995). The problem for the statement users, though, is that companies usually disclose the bond principal amount, but not the original discount or premium, and do not disclose clearly which method they are using.

In terms of comparability of financial reports, it can be seen that under different alternatives, interest cash flows would actually be reflected in other than operating cash flows, which goes against the SFAS 95 regulation.

Debt issue costs. Another topic relating to long-term debt is the issue of classification of debt issuance cost, as practice by companies varies by reporting them in either operating cash flows or financing cash flows. As sometimes those costs can be rather significant compared to cash flows, this is an issue which financial statement users should pay attention to. Whether deducted from the issuance proceeds or paid directly by the borrower, debt issuing costs are deferred and amortized over the life of the related loan. As it is reflected in future income calculation, there should be a precise recommendation by standard setters for the classification of debt issue cost consistently with interest costs.

As noted by the FASB Emerging Issues Task Force after reviewing 75 companies reporting debt issuance costs in their cash flow statements, the findings were that seven companies classified them under operating activities, and 68 under financing activities, either as a separate line or as an offset to debt issuance proceeds (Nurnberg & Largay, 1998).

The section shows that there are inconsistencies in classification in the cash flow statement. Sometimes, it is required to go beyond primary statements into notes to financial statements to be able to make adjustments for those inconsistencies.

Instalment sales and purchases: inventory. SFAS 95 recognizes issues of classification ambiguity in recording instalment sales and purchases of inventory, when cash flows occur over a several years. The FASB suggest that instalment sales could be treated as having the aspects of both an operating transaction for the selling activity and an investing transaction for the long-term credit extended to the customer. Similarly, instalment purchase transaction would then have both aspects as well: operating for the purchasing activity and financing for the long-term credit received from the seller. The original idea to address the issue was by requiring to record only cash flows occurring "soon before or after" the time of sale or purchase as operating inflows or outflows. Subsequent collections or payments are investing inflows or financing outflows correspondingly. Under this dual approach, for companies mainly selling on instalment, there is a negative influence on NCFOA. Therefore, in the final version of SFAS 95 it is required that all cash collection received from customers or cash payments made to suppliers should be classified as operating cash flows, regardless when cash is collected or paid. This is consistent with the notion that NCFOA generally includes items that are included in net profit. It is also consistent with the primary objective of the cash flow statement of recording actual cash flows. Mulford and Comiskey (2005) note that there is still a conceptual issue, because classifying principal collections on customer instalment receivables as operating inflows goes against classifying principal collections from investment in debt securities as investing inflows, and classifying principal payments on supplier instalment payments as an operating outflow is inconsistent with classifying principal payments on other debt as financing outflows and provide examples of multiple US corporations using this inconsistency to their advantage.

Academics note that from the finance perspective, when instalment sales are routine, a non-financial company becomes in essence a non-financial company with a financial component of lending to its customers. Accordingly, within the stated objective of the cash flow statement of reporting only actual cash flows, the issue of classification for a non-financial company is whether routine instalment sales should be viewed as both an operating transaction for the down payment and an investing transaction for the loan to the customer; and whether routine instalment purchase transactions should be viewed as an operating transaction for the down payment and a financing transaction for the loan from supplier. In such an approach, the distinction between NCFOA and NCFIA is impaired, and NCFOA actually becomes meaningless for companies with predominantly instalment sales. It hinders comparability and the possibility of an analysis of reports.

Instalment purchases or sales of plant assets. Under SFAS 95, for instalment purchases of plant assets, only early payments of the principal, such as advance payments and down payments are classified as investing cash flows, while subsequent payments of the principal are classified as financing outflows. The FASB relied on the assumption that it would have been too burdensome to separate the instalment payments to sellers of plant assets, which would be investing outflows, from the instalment payments to other creditors, which are financing outflows. Thus, both types of instalment payments are classified as financing outflows.

However, such treatment results in incomplete reporting of investing activities for such purchases. Also, it is inconsistent with SFAS 95 requirements for instalment sales of plant assets, where all receipts for the principal, not just early receipts, are classified as investing inflows, thus resulting in a complete reporting of investing inflows from such sales. Such inconsistency has not been given much consideration or opposition, as the net result is positive on FCF figures.

On the whole, the argument of burdensomeness in separation of cash outflows is rather outdated with current computerized accounting systems. On the basis of the accounting theory, it is a poor justification for incomplete cash flow reporting of instalment purchases of plant assets and inconsistent reporting for instalment sales and purchases of plant assets. From the analytical point of view, the incomplete reporting of investing outflows by classifying the instalment payments as financing outflows undermines the representational faithfulness and comparability of NCFOA and NCFIA, when instalment purchases of plant assets are significant.

Rental assets. Treatment of rental assets poses an issue of classification in the cash flow statement, as the related cash flows may not be clearly derived from either operating or investing activities. Purchases and sales of productive assets are investing activities. However, sometimes productive assets are obtained for the purpose of renting them for some time and subsequent sales, for example car rental companies. Because rental assets can be viewed as either inventory or plant assets, similar rental companies may classify payments for rental assets as operating or investing cash flows, without disclosing the reason for the chosen classification. According to the current regulations under SFAS 95, classification should be determined by the predominant source of cash flow from the item. Nurnberg and Largay (1996) state that classification in the cash flow statement should be consistent with the balance sheet classification of related assets and the activity that is likely to be the predominant source of cash flows. Such treatment would allow for consistency across financial statements, but not across reporting entities. When productive assets are a direct source of revenue, such as inventory-like assets rented for a short-term period and then sold, the acquisition and subsequent sale are operating activities, not investing activities. However, sometimes the predominant source of cash flow as the primary activity is not clear. For example, a car rental company has the primary activity of renting automobiles, not buying and selling them, even though cash inflows from selling a car might significantly exceed those from renting, which might lead to a different classification. If the predominant source of cash is from rentals, rental asset acquisitions and sales are classified as investing activities and if predominant source of cash is from buying and selling, such activities should be classified as operating. Because circumstances change over time, this approach allows flexibility for management to adjust cash flows from operations via classification. Mulford and Comiskey (2005) note that there is little difference between merchandise held for sale and merchandise available for instalment sale, as in essence, rent-to-own agreements can be viewed as instalment sales. However, they draw attention to the variation in classification in the cash flow statement by companies in the rent-to-own industry. Additional disclosures to the cash flow statement could help statement users to understand whether a rental company is a dealer (operating activity) or non-dealer (investing activity).

2.7 Manipulation of the cash flow statement

Earnings management could be achieved in two ways: real earnings management and accounting earnings management (Ewert and Wagenhofer, 2005). Real earnings management covers management ability to restructure transactions to speed up/to slow down recognition of revenues and/or expenses (i.e. expenditure on staff training or research and development). Accounting earnings management covers management ability to use the flexibility of accounting standards to speed up to slow down recognition of revenues and/or expenses (Mulford & Comiskey, 2002). Because income is used as a performance measure, the management can try to manage earnings to mislead shareholders about some economic performance of the company. Dechow and Skinner (2000), Healy and Whalen (1999), Mulford and Comiskey (2002) note that managers seek to manipulate earnings to keep up with loan

covenants, to meet or exceed financial analysts' forecasts, to increase company stock price, to increase management compensation. Financial statement users can use the cash flow statement to detect real earnings management by looking at reconciliations made from net profit to CFO. For example, a significant decrease in accounts receivable or accounts payable could reflect speeding up collections from customers or slowing down payments to suppliers. Accounting earnings management could also be detected in a similar way. For example, a significant increase in inventory may show a slow moving of inventory due to obsolescence or value change, changes which have not been duly accrued for due to the flexibility of accounting rules. Such information, however, is not provided in the cash flow statement prepared under the direct method.

Investors' increased focus on the cash flow statement is beneficial, as in most cases in provides a check on the quality of a company's earnings (Siegel, 2006). However, because cash flow from operations is often used as a performance measure, management might seek to manage reported earnings and cash flows. According to Healy and Wahlen (1999), Dechow and Skinner (2000) the main managerial motivations for earnings management are to reduce the likelihood of loan requirement violations, to meet and exceed analysts' forecasts, to increase company share price, to increase management incentive compensation, and so on. As some loan covenants specify the levels of operating cash flow to maintain, management could be motivated to manipulate it. Healy and Palepu (2003) note that performance-based compensation and stock-based rewards are frequently based on short-term performance measures, such as income or operating cash flow, and as a result may motivate management to use the flexibility inherent in accounting standards to manage cash flows. Lee (2012) argues that managers inflate reported operating cash flows when analysts issue cash flow forecasts for the firms. They do so by either altering the classification of cash flows within the cash flow statement or delaying payments to suppliers from the fourth quarter of one year to the first quarter of the following year. Roychwdhury (2006) finds that managers take real activity manipulation in order to improve cash flow from operations. Such activities as reducing advertising or research and development may yield short-term improvements in the cash position but may also reduce the firm's value and have a negative impact on cash flow in the long term. Mulford and Comiskey (2005) refer to Enron Corporation's manipulation of the cash flow statement with classification: the company had purchased treasury securities with loans and classified them as "trading" securities, later resold those securities and repaid the loans. There was no impact on financing and total cash flows, operating cash flows increased, as sale of treasury securities were classified as operating cash inflows.

Ayers et al. (2018) find that profitable firms report higher operating cash flows following analysts' forecasts. Managing earnings often involves no actual costs, as they are purely accrual manipulations. In contrast, CFO management requires the actual cost of a structuring transaction. Some of the costs are nominal, and not necessarily reflected in accounts, such as speeding up collections from customers by increasing discount or delaying payments to suppliers by foregoing purchase discounts. These are opportunity costs, not recorded in financial statements. Some of the costs, for example structuring of acquisitions or disposition transactions, could be rather substantial and have to be borne by shareholders eventually.

Real activities manipulation. The simplest thing that companies can do to improve reported operating cash flow is to slow down the rate of payment to suppliers, which boosts cash flow operations. Such an increase, however, should not be expected to continue in the future. Analysts or investors can identify this manipulation by monitoring day's sales in payables ratio (Siegel, 2006).

A more complicated version of stretching out payables is the financing of payables. This happens when a company uses a third-party financial institution to pay the supplier in

the current period, with the company then paying the bank in a subsequent period, which allows to change the timings of operating cash flows.

2.8 Summary and conclusions

This chapter has presented and discussed decision usefulness of the cash flow statement for the users in three categories. First, the usefulness of cash flow to company management for cash management and budgeting activities. Second, the usefulness of cash flow to investors for prediction of future cash flows. Third, the usefulness of cash flow to creditors for assessment of liquidity and solvency of the company. Moreover, it has provided a comparison of informational content in the cash flow statement, the income statement and the balance sheet.

With respect to usefulness of cash flow to company management, literature shows that cash flow forecasting is the key element of companies' financial management. Short-term forecasts are prerequisite for liquidity management and hedging of financial risks, while long-term forecasts are the basis for investment and financing decisions. With a rise of research and development intensive industries, cash flow became the single most important factor in companies' success or failure.

With respect to usefulness of cash flow to investors, literature reports that cash flow information is more valuable than earnings for future cash flow prediction, whether those are cash inflows to the firm or outflows to investors via dividends or increased share value. The same holds even for estimated cash flows, as compared to the earnings figures.

With respect to usefulness of cash flow to creditors, literature reports that from the 1970s there was an increasing belief that operating cash flow coverage, rather than asset liquidation value, is the main element of solvency analysis. Lenders have started using cash-flow based ratios in the assessment of company liquidity and solvency.

The chapter also presented an overview of studies relating to information content in the cash flow statement, the income statement and balance sheet. The cash flow statement is increasingly used to evaluate the relationship between profits reported in the income statement and cash flows, termed "quality of earnings" (Wittington, 1974; Jones, 1975, Ijiri, 1978). Researchers have also tried to find empirical evidence for the link between cash flows and dividends. However, it is worth noting that a body of literature still provide empirical support that financial statement users are perceiving the balance sheet and the income statement as the primary financial statements. On the other hand, there is also empirical evidence that the use of cash flow data is gaining in popularity. Siegel (2006) notes that accrual-based figures have decreased in reliability after the scandals of Enron, WorldCom and others since the early 2000s, and many analysts have shifted towards the cash flow statement for company valuation. Price (2013) notes that the cash flow statement has become increasingly popular, due to the perception that it is less subject to manipulation. Vito (2013) stresses the significance of the cash flow statement in the financial reporting package as it serves as a link between the statement of operations and the statement of financial position, effectively converting the accrual basis reports into cash basis.

Problems with comparability appear even on a standard setting basis. Even though flexibility in accounting choice is supposed to allow companies to represent events and transactions more faithfully, it unfortunately affects the comparability of information disclosed (Pinto et al., 2017). As seen from the analysis in this chapter, at the standard setting level the approach to the cash flow statement is similar in separating activities into operating, investing and financing as well as permission to use both the direct and indirect format for the presentation of operating activities. The major differences between the standards are in

the treatment of bank overdrafts and classification of interests received and interests paid and dividends received and dividends paid.

Baksaas and Stenheim (2019) provide a summary of regulatory examples for cash flow statements (see Table 2.14), which are inconsistent already at the standard level in terms of presentation. Consequently, in the author of this thesis states that the actual reports prepared using those rules cannot be comparable.

Table 2.14. Model IFRS cash flow statements in 2015 and 2018

Cash Flow Statement	**BDO**	**Deloitte**	**EY**	**Grant Thornton**	**KPMG**	**PwC**
Number of examples	One	Two	One	One	One	One
Operating activities:						
Direct method	No	Yes (alt. 2)	No	No	No	No
Indirect method	Yes	Yes (alt. 1)	Yes	Yes	Yes	Yes (note)
Indirect method, first line item	Profit for the year	Profit for the year	Profit before tax, specified on continuing and discontinued operations	Profit before tax	Profit for the year	Not specified in the statement
Number of lines:						
Indirect method: profit to cash flow	13	18	14	2	13	Not specified
Investing activities	9	12	8	10	12	14
Financing activities	8	10	8	5	13	11
Classification:						
Interest income and dividends	Investing	Investing	Operating	Investing	Investing	Investing and operating
Interests paid	Financing	Operating	Operating	Financing	Operating	Operating
Tax (OA, after "cash generated from operations"	Yes	Yes	Yes	Both operating and investing	Yes	Yes
Discontinued operations:	Not specified	Not specified	Not specified	Separate line after CFOA	Not specified	Not specified
Subtotals:						
Operating cash flows before movements in working capital	Yes, number only	Yes	No	No	Yes, number only	No
Cash generated from operations	Yes	Yes	Yes, number only	No	Yes	Yes
Net cash from continuing operations	No	No	No	Yes	No	No

Source: Baksaas & Stenheim, 2019.

The above examples for the preparation of the statement clearly show that there is still no conceptual consensus for the statement. In addition, literature review points to the fact that theoretical discussion on the conceptualization of the statement stopped in the early 2000s, and consequent research has been only addressing specific issues.

The above roadmaps to the preparation of the cash flow statement serve as guiding tools for both preparers and auditors but are conceptually false. For example, BDO proposes to start with profit for the year (consistent with ASC 230), but then proposes to classify interest income as an investing activity and interest paid as a financing activity (inconsistent with ASC 230). Moreover, as interest received and paid is included in the determination of profit for the year in the income statement, placing it in investing and financing activities conceptually breaks the connection between profit and cash flows from operations (decision usefulness criteria are not met).

3 Comparability and harmonization of cash flow statements under the IFRSs

Accounting comparability is perceived as a key factor of informative financial reporting and a necessary condition for achieving a common market in the European Union. It leads to benefit report users through improving information quality and quantity, as well as lowering the cost of obtaining information. It also contributes to more efficient allocation of resources of the capital market and more effective performance evaluation by managers (De Franco et al., 2011). The importance of financial statement comparability across companies is underscored in valuation techniques, such as price multiples, which are extensively used by investment banks and institutional investors. Consequently, standard setters position comparability as a central feature of the financial reporting system. The IASB and the FASB both listed it as one of the most important characteristics of accounting information. Unlike the other qualitative characteristics, comparability does not relate to a single item. A comparison requires at least two items. Standard setters also note that comparability is not uniformity. For information to be comparable, like things must look alike and different things must look different. The comparability of financial information is not enhanced by making unlike things look alike any more than it is enhanced by making like things look different. In addition, consistency, although related to comparability, is not the same. Consistency refers to the use of the same methods for the same items, either from period to period within a reporting entity or in a single period across entities (IASB, 2018).

The study was carried out by testing the cash flow statements of companies listed on the Baltic Nasdaq and a comparative analysis of Estonian, Latvian and Lithuanian financial statement preparers' classification decisions under IAS 7 was done. To the author's knowledge, all previous researchers have focused on the "old EU" states and no such analysis has been carried out for the Baltic countries. The aim of the study was to investigate whether a single set of rules for a specific financial statement guarantees similar treatment of items. Empirical results show that it is not the case and also points out that with a widespread adoption of the IFRSs there is a risk that investors are misled into believing that there is more uniformity in reporting than there actually is in practice (Ball, 2006).

3.1 Concept of harmonization and IFRSs

The adoption of the IFRSs in the European Union (the EU) in 2005, following the Regulation No. 1606/2002 (also called "IAS-Regulation") aimed to increase the comparability of publicly traded companies' annual reports and is said to have marked the new phase of international harmonization (Baker & Barbu, 2007). However, the IFRSs still provide flexibility to financial statement preparers when applying the standards due to explicit options, discretion in interpretation and the need for estimates (Wehrfritz & Haller, 2014). Therefore, differences can still be found in the IFRSs application from one company to another as well as from country to country. This led to a discussion whether the IFRSs are applied consistently and whether *"de-jure* standardization of accounting rules of group accounts of publicly-traded companies in the EU has also let to *de-facto* harmony" (Wehrfritz & Haller, 2014, p. 196). Taplin (2011) argues that quantifying the extent to which company statements are comparable is valuable even without a formal theoretical framework. The comparability in accounting methods used increases, as companies concentrate more on one alternative method, and Herfindahl or H-Index (Roberts et al., 2008) can measure this concentration. Nobes (2006, 2013) argues that country specific factors, such as the legal system, the national financing system, the national accounting regime and national culture, may still be relevant in the IFRSs reporting, as it influences accountants and their judgements on how the rules

are applied. In the recent years, the issues of comparability are of increasing interest to accounting researchers, practitioners and regulators, because of a widespread adoption of the IFRSs, the main goal of which is increased quality and comparability of financial reports.

Over the past decades there were numerous efforts made by legislators and accounting standard setters to reduce the number of different accounting treatments used to account for a particular transaction. To some extent, it has been caused by the perceived needs of capital markets and was intended to facilitate comparison of financial statements of different companies within a country and between countries. To evaluate the success of those harmonization efforts a number of indicators have been devised.

It is important to distinguish the two terms used in international accounting research: "harmonization" and "standardization". The terms tend to be used loosely in accounting literature (Tay and Parker, 1990), when referring to the efforts required to ensure that similar transactions and events are accounted in a uniform way wherever they took place of were reported. Harmonization is a process by which accounting moves away from diversity in practice, with the ending result of a state of harmony when all companies use only one of the available methods of accounting, or a very limited number of methods. The proponents of this system argue that harmonization can be achieved through natural processes of changes in culture, economic growth, international trade, etc., which causes national accounting regulators to imitate each other's practices. Some authors refer to *de facto* or material harmonization, which entails increase in comparability and *de jure* or formal harmonization, which covers harmonization of regulations. Formal harmonization could lead to material harmonization but could also cause dis-harmonization, if the new standards allow for more options (Canibano & Mora, 2000; Tay & Parker, 1990). Standardization is the process by which all companies agree to follow the same or very similar accounting practice, resulting in a state of uniformity. This process, as opposed to harmonization, is more formal and requires regulatory involvement to ensure compliance (Roberts et al., 2008).

The main benefits of harmonization include an increasing comparability of financial reports prepared in different countries and providing international investors with decision-useful information, removing barriers for international capital flows by reducing differences in financial reporting requirements for international capital market participants, and reducing financial reporting costs for multinational companies. The notion of harmony, under this view is that the process will lead to a situation of maximum harmony with respect to a particular financial statement item when all companies in all countries use the same accounting method. Consequently, harmonization studies are concerned with the similarity of accounting practices of companies.

Harmonization indices are commonly calculated to report the level of harmony of accounting practices. Aisbitt (2001) refers to multiple authors (e.g. Nair and Frank, 1981; Doupnik and Taylor, 1985; McKinnon and Janell, 1984) and states that early attempts to measure harmonization used descriptive statistics and variance analysis to evaluate the success of standards (Aisbitt, 2001). Research that is more recent has developed from the work of van der Tas (1988) who suggested quantifying the degree of harmony of financial reporting practices with the Herfindahl index (H-index) of industrial concentration. H-index is calculated by weighting the relative frequencies of the alternative options against each other. Thus, high relative frequencies have higher weighting and H-index raises when the methods companies are choosing concentrate more on one or a limited number of alternatives. H-index can fluctuate between 0 (no harmony, infinite number of alternatives with the same frequency) and 1 (all companies use the same method). (van der Tas, 1988)

Since the indices do not allow for complete comparability of financial reporting practices, van der Tas has created a comparability index (C-index). An expanded version of the C-index even allows considering situations where information published in footnotes is reprocessed

and appears in financial reports. Archer et al. (1995, 1996) propose that international harmony means that all companies would select, all other things being equal, a given accounting method. They explore the mathematics of the C-index and show how it can be decomposed into within-country and between-country comparability indices. The C-index has been considered the most reliable way of measuring the extent of harmonization but criticisms have been raised as well. Tay and Parker (1990) draw attention to the limiting factors in index interpretation, as when several values of indices are calculated under different circumstances, it is not clear whether the observed differences are due to different degrees of harmony or due to sampling variation. Baker and Barbu (2009) quote Krisement (1997) who argues that a number of observations affect the C-index and criticizes the decomposed index of Archer et al., because the sum of within-country and between-country indices did no equal the overall global C-index (Baker and Barbu, 2007).

Prior research by Barth et al. (2008), Barth et al. (2012), Ball (2006), and Nobes (2006) has evaluated the feasibility of convergence to the IFRSs, namely potential advantages of producing more accurate, timely and complete financial information, removing international differences in accounting standards and eliminating information impediments for global capital markets. The mandatory adoption of the IFRSs for all listed companies in the EU has provided researchers with the possibility of analysing the influence of the IFRSs on the domestic standards. The proponents of the IFRSs argue that a shared set of standards would make it easier to compare the financial performance of companies across different countries, and should lead to *de jure* harmonization. The argument suggesting that the mandatory adoption of the IFRSs is beneficial for stakeholders comes from the premise that the IFRSs reporting increases transparency and improves comparability of financial reports. It is reflected in the European Commission's justification for mandatory adoption of the IFRSs:

1) The establishment of a single set of internationally accepted high quality financial reporting standards (as compared to many different local standards in force), especially for the companies listed on the financial markets.
2) To contribute to the efficient and cost-effective functioning of the capital market. The Commission's goal is to protect investors, by maintaining confidence in the financial markets, which would then reduce the cost of capital for firms in the EU.
3) To increase the overall global competitiveness of companies within the EU and thereby improve the EU economy (Jeanjean & Stolowy, 2008).

On the other hand, there is evidence that accounting standards play only a limited role in determining the quality of financial reporting. Because the application of accounting standards involves considerable judgement and the use of private information, which allows management to have substantial discretion (Jeanjean & Stolowy, 2008). Lang et al. (2010) compared 21 countries where IFRSs are mandatory and concluded that the comparability of earnings does not improve for the IFRSs adopters as compared to non-adopters. Barth et al. (2008) argue that the IFRSs might even reduce the quality of accounting for two reasons: first, the IFRSs would eliminate accounting alternatives that are most appropriate for a specific company and second, because the IFRSs are principles-based and lack detailed implementation guidance, they afford management with greater flexibility (Ahmed et al., 2013).

Therefore, the key question is whether the adoption of IFRSs leads to harmonization and better comparability of financial reports is still open. The comparability issue is one of the major arguments for the IFRSs, and is founded on belief that IFRSs reporting makes it less costly for investors to compare companies across markets and countries (Armstrong et al., 2010). Barth et al. (2008) suggest that the cost of a country's investors becoming accounting experts for another country is reduced when GAAPs of the two countries become more similar, which is further supported by Horton et al. (2013), stating that analysts' forecast

accuracy improves after the mandatory IFRSs adoption for analysts covering companies reporting under multiple standards earlier. The ultimate goal of the adoption of the IFRSs and the harmonization of accounting systems is to provide financial markets with high quality information, improving their efficiency, lowering the cost of capital, and increasing the opportunities for capital access to companies.

Empirical studies of harmonization. Numerous studies deal with harmonization. Tay and Parker (1990) have distinguished between de jure and de facto harmonization, defining the former as the harmonization of rules and standards, the latter as the harmonization of actual practice. Van der Tas (1998) defined de jure harmonization as formal harmonization and de facto harmonization as material harmonization. The harmonization in financial reports can refer to the degree of disclosure or to the accounting method applied, which is referred to as measurement harmonization. Formal harmonization would normally lead to material harmonization (Canibano and Mora, 2000). *De facto* harmonization in prior studies is measured using H-index, C-index (Van Der Tas, 1988), C-index (Archer et al, 1995). Many studies have examined similarities and differences in international financial reporting, with focus on harmonization of accounting practices (Archer et al, 1995; Tay and Parker, 1990; Van Der Tas, 1988) and have concluded there was a lack of harmonization in either measurement or disclosure practices within and among countries studies. Aisbitt (2001), Hoarau (1995), Roberts et al. (2008) documented the development of *de jure* harmonization via EU directives and identified a shift towards convergence with the IFRSs. Canibano and Mora (2002) focus on accounting practices of European "global players" using the C-index and find evidence of "spontaneous harmonization" during the 1990s, but conclude that formal harmonization associated with Directives was not sufficient. Aisbitt (2001) uses the C-index and finds evidence of harmonization between Nordic countries in the 1990s, but also identifies instances of de-harmonization.

Extensive research has been done on the results of the adoption of the IFRSs globally. The mandatory adoption of the IFRSs for the EU listed companies from 2005 has further accelerated such research, as it has provided a unique setting, due to the economic integration of countries within the EU into a single market. Nobes (2006) summarizes the pre-IFRSs national accounting differences and raises a question whether these differences will survive after the transition to the IFRSs. Ball (2006) calls for caution when assuming uniformity in the IFRSs based financial reports, because incentives for the preparers (managers) and enforcers (auditors, courts, regulators, politicians, analysts, rating agencies) still remain local. Barth et al. (2006) provide evidence that the adoption of the IFRSs has improved the quality of accounting. Lang et al. (2010), using the methodology of De Franco et al. (2011) have documented increases in the similarity of earnings but not accounting comparability after the adoption of the IFRSs. They even argue that a greater uniformity of the adoption of the IFRSs may have a negative effect on the usefulness of accounting information, as it prohibits from taking into consideration the specifics of the company, industry and country. Li (2010) documents a lower cost of capital for the EU companies after the mandatory adoption of the IFRSs and argues that both increased disclosure requirements and improvement in comparability contribute to her findings. Armstrong et al. (2010) argue that uniform accounting standards are likely to improve the comparability of information across companies, which in turn should reduce the cost of equity capital. Armstrong et al. propose also that investors react positively to the adoption of the IFRSs as they expect "positive cash flow effects" (Armstrong et al., 2010, 40), which result from a lower cost of obtaining information and reduced possibilities for management manipulation due to better transparency. On the other hand, there is a fear that investors might react negatively, as they can perceive the uniform adoption of the IFRSs as a failure to accommodate adequately regional economic, political and accounting issues (Armstrong, et al., 2010). Yip and Young

(2012) address the issue above by investigating 17 EU countries using three proxies for the comparability of information (similarity of accounting functions, degree of information transfer and similarity of information content of earnings) and conclude that improvement of comparability is more likely across firms from similar institutional environments. Barth et al. (2012) used three dimensions of accounting quality (smoothing earnings, accrual quality and timeliness of earnings) to evaluate the comparability of the IFRSs based and the US GAAP based figures and have concluded that the adoption of the IFRSs has indeed led to greater comparability. Danske et al. (2008) provide support for the adoption of the IFRSs through the positive reaction of capital markets to the voluntary adoption of the IFRSs. Ahmed et al. (2013) measured the effects of the adoption of the IFRSs on three groups of metrics of accounting quality: smoothing profit, aggressiveness of reporting, and earnings management to meet targets, and found a significant increase in the aggressive reporting of accruals and no reduction in the earnings management following the adoption of the IFRSs. Horton, et al. (2013) have investigated whether the increase in the forecast accuracy after the adoption of the IFRSs was attributable to the higher-quality information and comparability or to the fact that the IFRSs give managers greater opportunities to manipulate their earnings and thus meet the forecast, and found that it is mainly due to the earnings manipulation.

The cash flow statement and harmonization. The CFOA is interpreted as the ability of the company to maintain its current operations while funding future growth. Cash flows and particularly the CFOA is used as a basis for business valuation, contracting, and financial analysis (Gordon et al., 2017). Literature focuses extensively on the classification of shifting in the income statement and the balance sheet, while less focus has been on classification shifting in the cash flow statement, prior to the IFRSs (Lee, 2012; Gordon et al., 2017). The US GAAP requires the classification of interests paid, interests received, dividends paid, and dividends received as part of the operating cash flows. The IFRSs, on the other hand, give preparers of financial statements more flexibility and allow to classify interests paid and received and dividends received and paid as either operating, investing or financing activity, provided they are classified consistently from period to period (IASB 2008, para. 31). Prior research indicates that the format of the cash flow statement is important for regulators, auditors and other users of financial statements (Hollie et al., 2011). Therefore, the effects of flexibility in the classification of cash flows matter as both the IASB and the FASB promote that the financial information should enable users of financial statements to assess the entity's liquidity and solvency, compare performance and make predictions (Gordon et al., 2017). Several authors (Jones et al., 1995, Mills & Yamamura, 1998) suggest that the figures of the cash flow statement are more important than the figures shown in the other financial statements. Nurnberg (2006) also suggests that the CFOA is important not only because it is used in the fundamental analysis, but also because it is used as a measure of the corporate performance that can be superior to the net profit.

The importance of the cash flow statement has significantly increased since accounting scandals in the early 21st century. Cash flows from operating activities are considered the most important for investors and creditors, as they come from the main revenue producing activities and are more sustainable than the cash flows from investing and financing activities (Baik et al., 2016). Atwood et al. (2011) have investigated the relationship between the adoption of the IFRSs and the reliability of the future cash flows. Their findings indicate that if the flexibility of the IFRSs is used to disclose more private information, the earnings reported under the IFRSs are "more persistent and more closely associated with the future cash flows than earnings reported under the US GAAP" (Altwood et al., 2011, 107). Gordon et al. (2017) examined the managerial incentives to inflate the CFOA and conclude that interest paid is commonly used as the item increasing the CFOA.

Considering prior research, it can be concluded that the net effect of adopting the IFRSs for accounting harmonization is still uncertain. The arguments for transparency and comparability suggest that the quality of financial reports should be improved. On the other hand, other influencing factors, such as incentives of management and institutional factors show that it is not necessarily the case.

3.2 Harmonization and cash flow statements: evidence from the Baltic States

As the IFRSs are principles-based standards, IAS 7 gives financial statement preparers flexibility and allows to classify interests received, interests paid, dividends received and dividends paid as either operating, investing or financing activity, provided they are classified consistently from period to period.

3.2.1 Harmonization measurement

Nobes (2006) has summarized numerous reasons for national versions of the implementation practice of the IFRSs and has provided a theoretical framework for analysis. His framework has been used in numerous empirical testing of the effects of the IFRSs adoption effect both in Europe (Wehrfritz et al. (2012) on Germany vs UK, Kvaal & Nobes (2010) on Australia, France, Germany, Spain and UK) and other countries (Zeff & Nobes (2010) on Australia, Baik et al. (2016) on Korea). As Baltic countries were not included in such research previously. Nobes (2006) identifies the following major causes for lack of harmonization under the IFRSs: (1) Different versions of the IFRSs due to different endorsement, (2) different translations of the IFRSs, (3) Gaps in the IFRSs, (4) Explicit options in the IFRSs, (5) Covert options in the IFRSs, (6) transition or first-time adoption of the IFRSs and (8) imperfect enforcement of the IFRSs. In case of Estonia, Latvia and Lithuania, public companies are traded on the joint stock exchange, thus information requirements from capital markets are the same. All three countries are member states of the European Union, thus the same directives concerning the IFRSs have been adopted. As of 2003, the IFRSs have been permitted to be used by almost all business entities in Estonia. From January 1, 2005, the IFRSs have been mandatory for all listed companies, credit and financial institutions, insurance companies (Alver & Alver, 2017). Lithuania and Latvia have the mandatory IFRSs for listed companies from 2005. The similarity of countries is further supported by Borker IFRSs orientation index. Borker (2015) has developed the IFRSs orientation index, based on Hofstede's Four Dimensions and Gray Accounting values. According to his findings Estonia, Latvia and Lithuania are rather similar, with Estonia and Latvia scoring 67 points, while Lithuania 64, which places the countries along Sweden, Finland and Germany (Borker, 2015). To quantify the degree of uniformity of practices adopted by companies, the C-index proposed by van der Tas (1988) has been applied. The use of the index implies that maximum harmony is reached when all the companies in the sample select the same alternative. For the purposes of this study a sample of is 100% of listed companies on the Baltic Nasdaq is used, which eliminates the bias of the sample over population (Taplin, 2011). These are companies with very similar characteristics as they operate in the international context and the characteristics of users of their financial statements are similar independently of their national context. For this purpose, the C-index is considered as the most suitable for the measurement of harmony level. Following Archer et al. (1995, 1996) the C-index is broken down to within-country and between-country indices.

The population of the research consisted of 33 public companies. The sample contains all companies that are listed on the Nasdaq Baltic market, which includes stock exchanges in Tallinn, Riga and Vilnius. For each observation in the sample, financial statements of the

company are retrieved from NASDAQ website (www.nasdaqbaltic.com) for years 2010–2017. The period allows to eliminate the extraordinary classification due to the mandatory first time adoption of the IFRSs and also allows to observe consistency in the classification of the cash flow statement items. The data was sourced from secondary sources: annual consolidated financial statements of companies, namely cash flow statements, with the Estonian sample of 15 companies, the Latvian sample of 5 companies and the Lithuanian sample of 13 companies, all comprising 100% of listed companies. As IAS 7 provides specific direction for the classification for financial companies, two financial institutions, LHV Group in Estonia and Šiaulių Bankas in Lithuania have been excluded from the sample, leaving 31 observations.

The accounting issues selected for harmonization measurement were the format of cash flow statements, the classification of interests paid and received, dividends paid and received. The reason for selecting these specific issues is largely due to the fact that they are considered among the most controversial in terms of comparability of cash flow statements (Atwood et al., 2011; Baik et al., 2016; Barth et al., 2012; Bradbury, 2011; Gordon et al., 2017; Hollie et al., 2011).

One way to compare financial statements is to measure the extent of similarities of differences between them, which would allow drawing conclusions which statements are most alike and which are most different. The comparability in accounting methods used increases, as companies concentrate more on one alternative method, and Herfindahl or H-Index (Roberts et al., 2008) can measure this concentration.

H-Index is:

$$\sum_{i=1}^{n} p_i^2 ,$$

where: p_i – the proportion of companies using accounting method i;
n – the maximum number of possible methods that can be used.

The H-Index can vary from low 1/n when companies use various methods, to a high of 1.00 when all companies use the same method. The downside of the H-Index is that is does not provide information on one-to-one relationship between popularity of alternative methods, thus interpretation could be ambiguous. The C-Index, developed by developed by van der Tas in 1992 and adjusted by Archer et al. in 1995, considers proportion of companies that use each accounting method and thus looks at a number of financial statements that are compatible with each other (Roberts et al., 2008).

C-Index is:

$$\frac{\sum(n_i \times (n_i - 1))}{N \times (N - 1)},$$

where: n_i – number of companies using method i;
N – the total number of companies.

The basic C-index measures the direct comparability of reported accounting numbers which are treated as comparable only if the same accounting method is used by any two companies and does not take into account supplementary information which may assist the user to make adjustments to achieve comparability (Archer et al., 1995).

Both the H-Index and C-Index are popular measures of comparability, or harmony, of financial reports. The C-index can be used to measure international harmony, defined as comparability of financial reports regardless of the country of origin (called “between-country” harmonization). It provides answers to questions regarding the level of

harmonization in one country as well as to what extent financial reports are compatible from one county to another.

3.2.2 Empirical finding and discussion

Format of the cash flow statement. Cash flows from the operating activity section can be prepared using either the direct method (showing cash inflows and outflows) or the indirect method (methodologically reversing the effects of accruals from the net profit, using information from the income statement and the balance sheet). Both the IASB and the FASB consider the direct method as preferred and while most jurisdictions allow the option of either the direct or indirect method, the majority of companies choose the indirect method of presentation (Bradbury, 2011).

Table 3.1. Format of cash flow statements

Country	Direct method		Indirect method	
	No of companies	%	No of companies	%
Estonia	3	21	11	79
Latvia	0	0	5	100
Lithuania	0	0	12	100
C-Index				
Overall	0.81			
Within-country	0.81			
Between-country	0.77			

Source: compiled by the author from companies' annual reports.

The format chosen for the cash flow statement is given in the Table 3.1. As can be seen, 100% of companies of companies in Lithuania and Latvia use the indirect method, while in Estonia 21% use the direct method and 79% the indirect method. C-index is rather high, with the majority of companies preferring the indirect method.

Classification issues. Based on the data about the classification of interests received (IntR), interests paid (IntP), dividends received (DivR), and dividends paid (DivP) among operating, investing and financing activities by Baltic listed companies, the H-Index for harmonization was calculated (see Table 3.2).

Table 3.2. H-Index for Baltic countries

Country/H-Index	IntR	IntP	DivR	DivP
Estonia	0.76	0.50	0.72	1.00
Latvia	0.52	0.52	1.00	1.00
Lithuania	0.72	0.50	1.00	1.00

Source: compiled by the author from companies' annul reports.

Table 3.2 provides levels of country specific harmonization measured with the H-Index for each category. As it can be seen, there is a high level of country wise harmonization in the treatment of dividends, while it is not so in the classification of interests. To understand whether such a classification pattern could be influenced by national standards, Table 3.3 provides national standard requirements (pre-IFRSs) for the classification of interests and dividends in each of the countries for cash flows from operating activities (CFOA), cash flows from investing activities (CFIA) and cash flows from financing activities (CFFA).

Table 3.3. National requirements for classification on cash flow statements

Country	CFOA	CFIA	CFFA
Estonia	Interests paid	Interests received Dividends received	Dividends paid
Latvia	Interests paid	Interests received Dividends received	Dividends paid
Lithuania		Interests received Dividends received	Dividends paid Interests paid

Source: compiled by the author.

The classification results show partial correlation with the pre-IFRSs requirements for listed companies. Estonia and Latvia have permitted interests paid to be recorded only in CFOA, while currently 57% and 40% of companies choose this option. In Lithuania, on the other hand, national standards have required interested paid to be classified as CFFA only. Currently, only 42% of companies are using this option, while 58% of companies have shifted their classification to CFOA. It shows a major shift of classification with the adoption the IFRSs. All three countries have required classifying interests and dividends received as CFIA. The results in show significant shifts in classification of interests received in all countries, especially Latvia (with 40% using CFOA option). Dividends received, continue to be mostly classified as CFIA, resulting in a high H-index and following historical treatment. Under national standards, dividends paid could be classified only as CFFA and companies continue to use this option, in perfect harmony with 1.0 H-index. Therefore, it can be concluded that IFRSs based financial statements of Baltic listed companies do not follow historical traditions for the classification of interests paid and received, while dividends received and paid are classified more persistently over time. The following sections will provide a more detailed analysis of classification issues and harmony measurement using the C-Index for both within-country and between-country harmonization level.

Classification of interests received. As can be seen in Table 3.4, the classification of interests received varies in each country, with Estonian and Lithuanian companies heavily leaning towards classifying interests received to CFIA (80% and 75% respectively) and CFOA (33% and 25%) while in Latvia it is dispersed more evenly, with CFOA classification by 40% and CFIA classification by 60%. This distribution also shows that Lithuanian companies are far more likely to allocate interests received over different cash flow categories, as 7 companies out of 12 have interests received in both operating and investing cash flows. In Estonia, only 3 out of 14 companies use this approach, while in Latvia, 1 out of 5. None of the companies in the sample has have classified interests received as part of financing activities. Different approaches used are reflected in the C-index, with within-country harmony being rather high, but dropping significantly at between-country level. Companies in Estonia, Latvia and Lithuania are using different treatment for the classification of interests received in cash flow statements and the harmony index is low.

Table 3.4. Classification of interests received

Country	Operating Activities		Investing Activities		Financing Activities	
	No of companies	%	No of companies	%	No of companies	%
Estonia	3	21	11	79	0	0
Latvia	2	40	3	60	0	0
Lithuania	3	25	9	75	0	0
C-Index						
Overall	0.68					
Within-country	0.70					
Between-country	0.44					

Source: compiled by the author.

Classification of interests paid. Table 3.5 shows that in reference to the classification of interests paid, companies lean towards classifying it as either CFOA or CFFA, while none allocate it to investing activities. In this section Estonian and Lithuanian companies show similar trends, with 57–58% allocating it to CFOA and 43–42% to CFFA, resulting in an average within-country C-index of 0.46. While in Latvia, proportions are reversed, with more companies allocating interests paid to CFFA. This is reflected by a significantly lower between-country C-index of 0.25. Companies in Estonia, Latvia and Lithuania are using different treatment for the classification of interests paid in cash the flow statement and the between-country harmony index is low.

Table 3.5. Classification of interests paid

Country	Operating Activities		Investing Activities		Financing Activities	
	No of companies	%	No of companies	%	No of companies	%
Estonia	8	57	0	0	6	43
Latvia	2	40	0	0	3	60
Lithuania	7	58	0	0	5	42
C-Index						
Overall	0.48					
Within-country	0.46					
Between-country	0.25					

Source: compiled by the author.

Classification of dividends received. Table 3.6 provides summary of the classification of dividends received. Before looking at the differences in the classification of dividends received, it should be noted that the frequency of such income is rather different across countries; in the Estonian sample 36% of companies (5 out of 14) had dividend income, in Latvia – none, in Lithuania – 75% (9 out of 12 companies). Therefore, if to restate the figures to the companies having actual dividend income, in Estonia 80% (4 out of 5) classify dividends received as CFIA and 20% as CFFA (1 out of 5), none use CFOA option. While in the Lithuanian sample all 100% classify dividends received as CFIA. The resulting C-index supports that harmonization is achieved as to the classification of dividends received. Companies in Estonia, Latvia and Lithuania are using different treatment for the classification of dividends received in the cash flow statement, but with most companies clustering in investing activities. Thus, the level of harmonization is high.

Table 3.6. Classification of dividends received

Country	Operating Activities		Investing Activities		Financing Activities	
	No of companies	%	No of companies	%	No of companies	%
Estonia	0	0	4	29	1	7
Latvia	0	0	1	20	0	0
Lithuania	0	0	9	75	0	0
C-Index						
Overall	0.88					
Within-country	0.90					
Between-country	0.83					

Source: compiled by the author.

Classification of dividends paid. Dividends paid is the only homogenous area of classification by Baltic listed companies – all companies classified dividends paid as CFFA (see Table 3.7). Thus, the C-index is a perfect 1.00 at both within- and between-country level.

Table 3.7. Classification of dividends paid

Country	Operating Activities		Investing Activities		Financing Activities	
	No of companies	%	No of companies	%	No of companies	%
Estonia	0	0	0	0	14	100
Latvia	0	0	0	0	5	100
Lithuania	0	0	0	0	12	100
C-Index						
Overall	1.00					
Within-country	1.00					
Between-country	1.00					

Source: compiled by the author.

As noted in previous sections, CF stresses that consistency, although related to comparability, is not the same. Consistency refers to the use of the same methods for the same items, either from period to period within a reporting entity or in a single period across entities (CF, 2018). The results of the empirical study show that there is a longitudinal consistency of classification by observed companies for all items under analysis: the format of the cash flow statement, interests received, interests paid, dividends received and dividends paid. During the period of observation, some companies have changed their classification for some items, but have thereafter been consistent. For example, AB Lietuvos Energijos Gamyba has reclassified dividends received from CFFA to CFIA in 2012; AS Tallinna Vesi has reclassified interests paid from CFOA to CFFA in 2012. An interesting shift has occurred in AS Merko Ehitus, company, which has shifted interests received classification from CFIA and now classifies it over two activities: CFOA and CFIA. Both dividends received and dividends paid classification have achieved a high level of harmony intended by the IFRSs. However, the treatment of interests paid and interests received despite *de jure* harmonization of the standard, has not resulted in *de facto* harmonization.

The flexibility of IAS 7 in choices for classification is a two-sided issue: on one hand, it should allow for higher quality financial reporting as managers can incorporate for company specific factors; on the other hand, it reduces the comparability of reports across the companies. Further research could focus on the actual effects of such classification flexibility for the cash flow ratios. Users of financial statements find the cash flow statement

to be useful, especially in getting information how cash, a vital resource to a business entity, comes into company and how it is utilized (Petty & Rose, 2009). The results of the current study show that harmonization has been achieved only for some issues under investigation, like the format of the cash flow statement, dividends paid and dividends received while the classification of interests paid and interests received has not been harmonized yet. Thus, users of financial reports should not assume full comparability of cash flow statements for Estonian, Latvian and Lithuanian companies, despite a single stock exchange, cultural and economic similarities of countries (Kiaupaite-Grušniene & Alver, 2019).

3.3 Summary and conclusions

This chapter has presented findings that it is evident that the adoption of the IFRSs reporting does not result in full harmonization in financial reporting, though it does appear to have made improvements in cross-firm and cross-country comparability. Accounting comparability is perceived as a key factor of informative financial reporting and a necessary condition for achieving a common market in the EU, it leads to benefits for report users through improvements in information quality and quantity, as well as lower costs of obtaining information. Unlike the other qualitative characteristics, comparability does not relate to a single item. Standard setters also note that comparability is not uniformity; for information to be comparable, like things must look alike and different things must look different. As the IFRSs are principles-based standards, IAS 7 gives financial statement preparers flexibility and allows to classify interests received, interests paid, dividends received and dividends paid as either operating, investing or financing activity, provided they are classified consistently from period to period.

The study was carried out testing the cash flow statements of companies listed on the Baltic Nasdaq and comparative results for Estonia, Latvia and Lithuania in financial statement preparers' classification judgement under the IFRSs have been shown. To the author's knowledge, all previous researchers have focused on the "old EU" states and no such analysis has been done for the Baltic countries. The aim of the study was to investigate whether a single set of rules for a specific financial statement guarantees similar treatment of items. The empirical results show that it is not the case and also point out that with a widespread of adoption the IFRSs there is a risk that investors are misled into believing that there is more uniformity in reporting, than there actually is in practice (Ball, 2006, Nobes, 2013). Thus, users of financial reports should not assume full comparability of the cash flow statements for Estonian, Latvian and Lithuanian companies, despite a single stock exchange, cultural and economic similarities of the countries.

4 Cash flow statement: need for change

4.1 Comparability and information quality as criteria for proposed changes

Littleton (1953, p. 132) explains that accounting "theory states the reason why accounting action is what it is, why it is not otherwise, or why it might well be otherwise". Dichev (p. 617, 2017) states that conceptual foundations matter because they "organize and drive the more specific rules that govern financial reporting". Focusing on cash flows provides the following advantages:

1) Cash flow is the bedrock of business performance and is the only truly verifiable fact, as compared to accruals;
2) Cash flow is a reality of the accrual accounting system;
3) Cash flow provides a natural connection to the primary goal of financial reporting: "to provide information about an entity's future net cash inflows". (Dichev, 2017)

Evans (p. 237, 2003) notes that in the past, cash and cash flows have been perceived as "primitive concepts when compared to the more sophisticated accrual concepts". However, the view has been changing as both, users of financial reports and standard setters recognize cash inflows and outflows as the most fundamental events in the company that are essential for a company's survival. The primary reason for bankruptcy is not the absence of profit, but the absence of cash, Grant Company being the classical example used in accounting literature. This need for cash flow information has raised cash and cash flow concepts into new prominence with standard setters as well.

Starting from the 1960s, academic research in the field of accounting became more quantitative and analytical. The new paradigms have increased understanding of how financial information affects the decisions of investors and managers (Granof & Zeff, 2008), but have failed in other areas like contribution to the establishment of new practices and standards. Young (2006) notes that the emphasis on decision usefulness of financial reports is quite recent and lacks knowledge of information needs and decision processes of the actual users of financial statements. It should be noted, that the original intention of the cash flow statement, according to the FASB, was to support other accrual-based statements. The statement has been designed to provide confirmation that accrual-based earnings are ultimately resulting in cash flow and to provide information about the sources and uses of those cash flows. It was not designed to be a predictor of cash flows, it should have aided in explaining to investors and creditors why earnings are not resulting in cash flows (Mulford & Comiskey, 2002). It was in accordance with that period's definition by the FASB that the primary focus of financial reporting is information about a company's performance provided by measures of earnings and its components. As over the years, the primary focus of financial reporting, according to both the IASB and the FASB, has shifted to the presentation of financial information about the reporting entity that is useful for the users of financial statements in assessing the prospects of future cash inflows to the company and in assessing management's stewardship of the resources, the income statement and the balance sheet have undergone changes in both format and definitions. In case of the cash flow statement, it has not done it, and it is evident that some changes are required for the statement to gain a prominent position in financial reporting.

The demand for uniformity and comparability of financial reports rose in the 1950s, when patterns of equity investment in the United States began changing and investor focus shifted from dividend yields to capital gains. At the same time, more small investors entered the market and financial advising business was booming. It all led to an increased scrutiny of corporate reports (Young, 2006). On the academic side, the science of decision entered the business world (Gore, 1959) with a focus on the clarity of goals and affected accounting by

initiating discussions on such topics as selection of accounting methods and reduction in accounting diversity. Decision usefulness criteria in accounting information are defended by Baker and Schaltegger (2015) using a pragmatic view. They argue that the "true value of the statement depends on how useful it is, and the more useful it is, the better it can help users engage with the world" (Elkhashen & Ntim, 2018). On the other hand, Williams and Ravenscroft (2015) argue that given the complexity and unpredictability of the global economy, it is very difficult to determine which items of accounting data have more value than the others, especially because the feature of decision usefulness is not inherent in any accounting data. Bay (2018) even states that financial reports prepared under current standards are not providing accounting outputs in interpretable ways for their users.

Because corporate financial reports are the primary source of information for report users, the information has to be readily accessible and in a useful form, as investors require timeliness, transparency, comparability and consistency. As noted by Howell (2002) financial reporting has reached the point where accrual-based earnings are almost meaningless, because reported earnings are driven as much by "earnings expectations as they are by real business performance" (Howell, 2002, p. 1). Even though manufacturing and merchandising companies still dominate the corporate world, recent development has seen a growing importance of service business, especially the financial sector as well as mingling of production and finance, as many manufacturers and merchandisers have added financial services to their products. More and more companies are driven by the creation and use of intangible assets, which calls for improvement in their reporting. The current format of financial reports fails to reflect the major value drivers of companies, such as research, process and software development that are the core of high technology companies or the brand value of the leading consumer product companies. The benefits that users gain from financial statements depend on the concise and clear presentation of the underlying economic events in the company, with focus on understandability and comparability. Therefore, it is rather strange that the IFRSs carefully regulate the recognition and measurement of accounting items but fail to regulate precisely how these items should be presented in the financial statements (Baksaas and Stenheim, 2019). A growing body of literature show that comparable financial statements allow investors to process information at a lower cost (De Franco et al., 2011, Choi et al., 2019). Analysts tend to focus on producing market/industry-level information rather than firm-specific information because of lack of access to inside information, thus comparability of reports affects "stock-price informativeness" (Choi et al., 2019, p. 391). As defined by the FASB, "a user's decisions involve choosing between alternatives, for example selling or holding an investment, or investing in one reporting entity or another" (FASB, 2010, p. 19). Consequently, comparability helps investors to understand firm-specific information when they evaluate alternative investments. De Franco el al. (2011) also note that financial analysts' forecasts are more accurate and less dispersed for firms with financial statements which are more comparable with those of industry peers. Kim et al. (2013) and Fang et al. (2015) report that comparability provides benefits in public debt markets and private loan markets. Kiaupaite-Grušniene and Alver (2019) report that harmonized accounting standards do not lead to harmonized accounting outcomes, if preparers have a flexibility in application. Therefore, report users should experience caution when using financial data in their decision models.

To fulfil the requirement of decision useful information, financial statements should provide such information that can help the users to make better and more informed decisions. Financial statements must serve the needs of all the users, whether equity investors, creditors or other suppliers of capital to the company. To achieve this goal, financial statements must display cohesion and must clearly separate activities do to with the company's operations and activities to do with financing of the company. Disaggregation in

financial statements must be made with the objective of enhancing information about future cash flows. Clear financial statement presentation requires less explanatory footnote disclosure, so it would reduce "information overload". Comparability of financial statements is the key characteristic of useful accounting information. As noted by the CFA Institute (2007) the ability of financial information users to make "high-quality, independent, objective, and reliable investments decisions" depends not only on their expertise in the use of analytical techniques, but also on the quality of information available for collection, analysis and incorporation into valuation models (p. 1). The basic issues of recognitions and measurement, better disclosure, and increased transparency have not changed much over time. Users of financial information want to understand the processes by which a company generates wealth. The ultimate wealth-generation process is to generate cash. Thus, it is critically important for users of financial statements to understand how companies generate cash and how they manage their cash receipts and payments. It could be understood only if the company-reporting model is clear and complete. Graham and Leary (2018) report that an average cash-to-assets ratio for US public companies has significantly increased (nearly tripled) in the last decades due to new public firms with large cash holdings (relative to their assets and sales). It is mainly companies in health and high-tech industries that are characterized by low or no profits, low sales, lows current assets, low debt, high growth and high volatility.

Despite the already relative longstanding requirement for the cash flow statement, debates continue on the usefulness and information content of this statement (Barton et al., 2010; Kumar & Krishnan, 2008; Laswad & Baskerville, 2007; Subramanyam & Venkatachalam, 2007; Ni et al., 2019). The guiding idea behind the cash flow statement is that for a given company and period of time it provides a summary reconciliation of all cash flows. However, the current format of the cash flow statement still falls short of its full potential and analysts are using the income statement as an input for cash flow models, as they perceive it to be offering greater insight into both completed and accrued transactions (PwC, 2007).

The author of the thesis poses that the weaknesses in the cash flow statement could be broadly classified into the following sections:

1) Lack of business model and business activity definition.
2) Resulting classification problems (operating activities, investing activities, financing activities).
3) Presentation format (with focus on presenting information useful for forecasting cash flows):
   a) Direct vs indirect;
   b) Starting point for reconciliation;
   c) Conceptual outcome of cash flows.

Such an approach is supported by Barth et al. (2012) who discuss four factors that affect comparability of financial statements in general, which could be specified for the cash flow statement in particular.

1) The first factor is whether companies in comparison use the same set of financial reporting standards, as recognition and disclosures are governed by accounting rules (i.e. ASC 230 vs IAS 7);
2) The second factor is the company's business model, as different models could lead companies to use the same assets in a different way (i.e. definition of business model/activity);
3) The third factor is the accounting choice, which is known as managerial discretion. Companies which make different accounting choices from those of their peers are likely to have lower financial statement similarity (i.e. classification, treatment, disclosures);

4) The fourth factor is the unknown managerial discretion in applying the GAAP or IFRSs – not disclosed (i.e. what is included in cash and cash equivalents, capitalized interest costs, etc.).

Enhanced conceptual clarity is likely to have effects not only on the foundations of accounting practice but also on more detailed and specific applications. Even though the users of financial statements could include investors, creditors, suppliers, regulators, employees, media, etc., under current financial accounting regulation, investors and creditors are the primary users of financial statements (FASB, 2010; IASB, 2018). It should be taken into consideration that even investors and creditors are a rather diverse interest group, where the information needs of institutional investors could be rather different from individual investors. Dichev (2017) notes that even though the investing community has a strong interest in earnings information, it follows the cash view of the world. Cash flow techniques like projecting and discounting cash flows prevail in the practice of investment professionals. On the other hand, standard setters and the accounting profession sometimes still state that cash accounting is inadequate and accrual accounting is a better alternative for tracking and understanding the performance of the company, which is reflected in thousands of pages of accounting standards. However, as practice and research shows, in the end, the users of financial reports spend considerable time on trying to unravel the accruals from financial reports and get to the basis of the underlying cash flows. Therefore, the cash flow statement, with some changes proposed by the author of this thesis could serve as a tool for clearer understanding about the link between cash flows and accruals.

The author of this thesis proposes a model for a reoriented cash flow statement, which follows the same conceptual foundations as other financial reports and provides a link between cash flow and accrual accounting. As financial reporting is directed towards serving the needs of investors, and since the ultimate benefit of equity ownership are the cash flows received, it is logical that cash flows to equity holders should be the focus of the cash flow statement. Young (2006) points out that currently "accounting methods are justified based on accounting activities, including recording, classifying, and interpreting or upon its conventions such as matching or conservatism rather than in terms of how the method may or may not produce information useful to particular types of users" (p. 582). The cash flow statement under current standards is not readily related to value creation. Derived from the income statement and the balance sheet, it is actually a reconciliation statement for the change in the balance of the cash account, without a clear conceptual background. The proposed changes to the cash flow statement would directly relate it to value creation by the company and would also align it with other financial reports: the income statement reports net profit, which is net periodic benefit from equity investment in accrual terms; the balance sheet reports shareholder's equity, which is claim on equity at a given point in time. The author of the thesis believes that the proposed mode of the statement better serves the needs of investors, who are using cash flow data as the primary metric in building models for company valuation. The new format starts with the shareholder perspective (proprietary theory) and reconstructs the cash flow statement to clearly provide information about cash flows that business operations are generating, how those cash flows are being used, along with financing cash flows provided by creditors and investors. The usability of cash flow statement necessitates that attention is paid to current gaps. Several recommendations, including a possible model are made for the improvement of the statement in this section.

This chapter proceeds according to the following reasoning (see Figure 4.1).

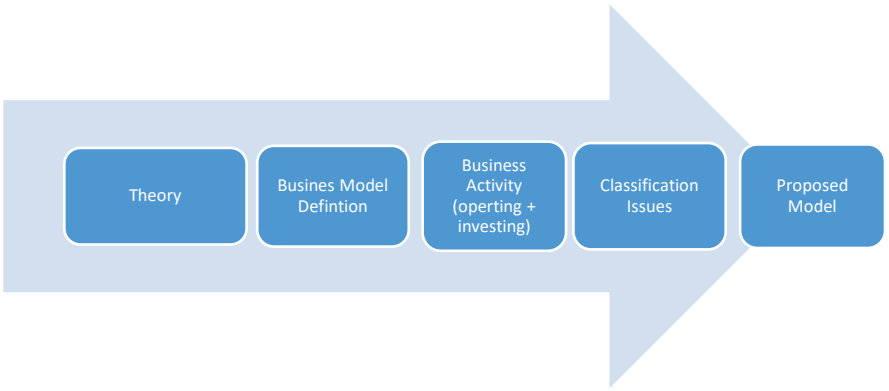

Figure 4.1. Structure of proposed model development
Source: compiled by the author.

4.2 Proprietary theory

The objective of a business is to increase real shareholder value. Investors get returns from dividends and realized market appreciation of their investment. Both investments and returns are measured in cash terms, and investors invest their cash in companies with the objective of realizing returns that meet their criteria. From the managerial point of view, the objective of increasing shareholder value is increasing the net present value of future cash flows, so it is also measured in cash terms. Howell (2002, p. 2) points out that the focus is cash, not profit, as cash is real and profit is "anything, within reason, that management wants it to be". For example, if revenues are recognized early and expenses are deferred, the resulting earnings would show a nice trend but would not reflect the actual economic performance. Thus, managers and investors should focus on the cash earnings and reinvestments in the company to sustain the current operating base and to expand it, the net amount of which represent the company's "FCFs". With negative cash flows, which is common for start-ups and high-growth companies, a company must raise capital in form of debt or equity. Only when cash flows become positive, the value creation for shareholders begins, as positive FCFs provide resources to pay interest and to repay debt, and consequently distribute dividends to shareholders.

According to the IASB, the main objective of financial reporting is the presentation of financial information about the reporting entity that is useful for the users of financial statements in assessing the prospects of future cash inflows to the company and in assessing management's stewardship of the resources. This principle is followed in the balance sheet and the income statement, as the residual lines in both statements pertain to resources available to common shareholders. Ohlson et al. (2010) propose that a clear identification of property rights of common shareholders could allow for simplified calculation of earnings per share. In accordance with the proprietary theory, contingent equity securities (warrants, compensation options, convertible bonds, put options) could be treated as liabilities and income or expenses. Thus, the proprietary theory provides a more coherent perspective than the entity theory (Ohlson et al., 2010). The author of this thesis poses that the cash flow statement should follow the proprietary theory approach as well.

The current format of the cash flow statement distinguishes between operating, investing and financing cash flows and has a bottom line of "change in cash and cash equivalents". The operating section includes the results of selling activities, investing in working capital, and interest expense, which is part of financing activity. Investing cash flows include capital expenditures, purchase and sale of fixed assets. Financing activities relate to borrowing and

raising capital from shareholders. The bottom line of "change in cash and cash equivalents" in itself is a useless number, other than to show that thwe beginning and ending cash balances from the balance sheet are reconciled. If a company wants a positive change in cash, it can simply borrow more. Therefore, the current format of the cash flow statement puts it into a conceptual disbalance from other reports, which in turn hinders its analysis and quality of information.

The author of this thesis proposes that similarly with the accrual-based income statement, the cash flow statement should be defined from the shareholder perspective. Income from continuing operations is considered to be income available to shareholders, after claims by lenders, in the form of interest, are deducted, while dividends are not shown in the income statement. In a similar logical approach, cash flows from operations should report cash available to shareholders before interest claims of debtors are deducted. Dividends should not be included in the determination of cash flows from operations, as they are residual claims of shareholders. Consequently, the bottom line of the cash flow statement should be free cash available to shareholders for distribution or reinvestments. However, the current trichotomy of classification for activities does not allow it and changes should be made.

4.3 Definition of business model

There is no universally defined meaning for the term "business model", but usually it is referred to as the value creation process of the company, for example, how the company generates cash flows (EFRAG, 2015). Initially the term has been used in the e-business context, but in recent decades has extended to all industries in accounting research (Mechelli et al., 2017). Investors' primary concern is to understand and model the companies' operating activities, in order to derive company value. The debate around the elements that describe the business of a company is still open. The CF (2018) presumes that the users of financial reports need information that helps them to assess the prospects of future cash inflows to the company. It also presumes that information about reporting a company's financial performance helps users to understand the return that the company has produced on its economic resources, and that information about a company's past financial performance and how its management has performed its duties helps to predict the company's future returns (ASBJ, 2015). The purpose of financial reports is not to show the value of the company but provide enough information for the users to estimate that value (Barker & Teixeira, 2018).

In order for the users to understand and evaluate a company's past performance, it is critical to properly distinguish its business activities. The nature of the business activity is likely to influence the measurement, the unit of accounting, the distinction between profit and loss and other comprehensive income, and presentation and disclosure (ASBJ, 2015). Bezold (2009) refers to Edwards and Bell who made a distinction between two types of "purposive profit-making activities": those that yield profit by combining or transforming factors of production into products, or those that yield gain because the prices of assets rise while they are in possession of the company (p. 5). In the former case, the profit is caused by using the factors while in the latter by holding the factors of production. Therefore, a business activity could be described as "consisting of combining different resources according to an economic logic to generate net cash inflows" (Bezold, 2009, p. 7). The purpose of a company's business activities is to invest cash into non-cash resources to generate net cash inflow. Thus, the value of a business activity is determined by the expectations of net cash inflows in future periods. Even though value changes in non-cash resources at the measurement date can affect future cash inflows, they are not automatic and would depend on future decisions and actions. The European Financial Reporting Advisory Group (EFRAG, 2015) has extended the

categorization of business models according to the activities of the business, cash flow generation and value creation, configuration of assets, and customers of products and services. Therefore, financial reporting must portray the business model in order to faithfully represent the economic reality of the reporting company, since it "focuses on the actual past and current transactions and events" (EFRAG, 2015, p. 6). Only once the business model is identified, the accounting treatment related to the business model should be derived (EFRAG, 2013, EFRAG, 2015). EFRAG (2015) has proposed the following groups of business models (full definitions are presented in Appendix 1).

Table 4.1. Business model groups

Business Model	Implications
Price Change	These are companies trading in the same market as their recurring operations. Fair value measurement gives useful information.
Transformation	These are 'value-added' businesses, which produce goods and services via inputs or commodities bought in the market and sold in another market. Examples are manufacturing entities and retailers. Cost-model measurement would give useful information.
Long-term investment	These companies perform management with focus on the cash flows from assets. Examples would be real estate companies. Fair value measurement gives useful information.
Liability driven	Companies with this business model take long-term obligations. It is similar to a business model for the banking and finance industry, and needs the treatment of the presentation of special information.

Source: EFRAG, 2015.

Eventually, the IASB has decided not to define a business model in the IFRS CF and uses the concept "business activities" (IASB, 2018). The author of the thesis proposes that the EFRAG definitions of business models could serve as a starting point for restructuring the cash flow statement.

Information about a company's regular business activities is important when assessing management performance (accounting information for control purposes) and when making forecasts of future economic performance (accounting information for valuation purposes) (Edward, 1989; Penman, 2011; Baksaas & Stenheim, 2019). Leisenring et al. (2012) state that business model focus can be effectively used to present management's intent for the use, disposition, settlement of items, linking those intents to recognition, initial and subsequent measurement, and presentation, including classification and disclosure. According to them, business model accounting provides the most relevant information, because it determines how the value (cash flows) will be realized from an item. Standard setters have taken initial steps in applying this approach by requiring disclosing business model in annual report commentaries, but have not extended it to the actual regulations for financial statement preparation. The business model also influences the cash flow forecast, as for example in agriculture cash flows depend on agrarian cycles, in pharmaceuticals and consumer health they depend on R&D, intangible assets, discount, etc. (Glaum et al., 2018). Dichev (2017) points out that the focus of a profit earning entity is that it invests cash in a business model and proposes the use of income-based approach. Therefore, it is important to the users to see presentation of ordinary business activities and their contribution to profit or loss, to working capital, and to other investments necessary for financing business activities, and cash flow contributions from these activities. The current standards do not ensure this, as activities in the cash flow statement (operating, investing and financing) are not following the format of either the income statement or the balance sheet, and re intermingled with various sections (i.e. investing cash flows could appear on both current and non-current section of the balance sheet).

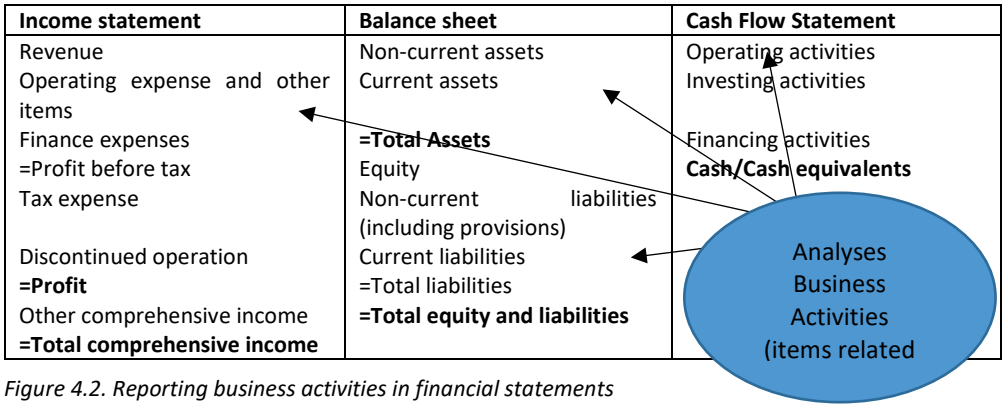

Figure 4.2. Reporting business activities in financial statements

Source: Baksaas & Stenheim, 2019.

A business model in the context of financial statements is understood as an accounting item that represents primary operational activities of the company and the items most important for the income-generating business (see Figure 4.2.). It in turn affects classification and measurement (fair value or historical cost) issues. Focus on cash flows also allows to evaluate some aspects of a business, which are not readily available in financial reports, like intangibles. According to Dichev (2010), if a company has any hidden intangibles, they will be reflected in the observable cash flow; "we may not know the nature of Google's intangibles, but the presence of bountiful cash flows is enough to alert us that the company is doing well" (Dichev, p. 625).

Following the IASB and the FASB declaration that the presentation of financial information about the reporting entity that is useful for the users of financial statements in assessing the prospects of future cash inflows to the company is of primary importance, Linsmeier (2016) has proposed that the income statement could divided into recurring and nonrecurring activities. It would improve the information content of the income statement and would allow financial statement users to better forecast future earnings, due to disaggregation. Table 4.2 provides an illustrative example of the proposed format for the income statement.

To overcome the same problem in the cash flow statement, the author proposes to follow Linsmeier's (2016) approach developed for the income statement of defining operating activities as those, which result in the company's productive activities. Within the operating section, the operating/finance subjection could be introduced, which would allow to follow the financing of operating activities by the company. As in order to forecast future cash flows, financial statement users require to know which amounts will reoccur in the future, the recurring and non-recurring distinction should be introduced.

Table 4.2. Illustrative example of the statement of financial performance

Statement of operating income	
Recurring operating income	
Sales revenues	XX
Cost of goods sold	(XX)
Gross profit	XX
Selling expenses	(XX)
Administrative expenses	(XX)
Research and development expenses	(XX)
Amortization of intangibles	(XX)
Other expenses	(XX)
Recurring operating income	**XX**
Nonrecurring operating income	
Gains (losses) from sales of PPE	XX
Restructuring charges	(XX)
Discontinued operations	XX
Derivative gains (losses) on cash flow hedges	(XX)
Impairment losses	(XX)
Litigation losses	(XX)
Nonrecurring operating income	**XX**
Operating income before taxes	XX
Income tax expense	(XX)
Operating income	**XX**
Statement of comprehensive income	
Operating income	XX
Recurring non-operating income	
Interest income	XX
Interest expense	(XX)
Dividend income	XX
Earnings in subsidiaries	XX
Other income	XX
Expected return on pension assets	XX
Recurring non-operating income	**XX**
Non-recurring non-operating income	
Gains (losses) on financial assets	XX
Gains (losses) on extinguishment of debt	XX
Unrealized gains (losses) on average for sale securities	XX
Foreign currency translation gains (losses)	XX
Non-recurring non-operating income	**XX**
Non-operating income before taxes	XX
Income tax expense	(XX)
Non-operating income	**XX**
Comprehensive income	**XX**

Source: Linsmeier, 2016.

The author of the thesis claims that a proper definition of the business model (following proposal by EFRAG) would solve the issue classification for operating cash flows by focusing on the sources of generation and not the actual amounts. The substance over form concept would be followed and information presented would be of more value. For example, a car rental company like AVIS has two sources of cash generation related to automobiles: car rentals (primary business) and car sales, when they are not rented anymore (essentially, this is a transaction of upgrading assets for being able to rent them further). Currently, the options for the company are as shown in Table 4.3.

Table 4.3. Optional treatment of cash flows under current regulation

Action	***Operating cash flows***	***Investing cash flows***
Purchase of an automobile for renting for two years		Outflow
Rental revenues	Inflows	
Sales of amortized automobile	Inflow	Inflow
Sales proceeds could currently be classified as either operating or investing cash flows: 1) Operating – if to apply the concept of the major source of cash flow from the asset; 2) Investing – if to apply the concept that it is a long-term asset transaction, thus an investing activity. Major problem for users: 1) Comparison – how are competitors treating such a transaction. 2) Projection – is this discontinued operation (the sold cars are nor replaced) or continuing (amortized long-term assets used in revenue generation are replaced with new ones). 3) Investing outflows for purchase – how much is for the regular replacement of the operating base and how much is for expansion of the operating base (forecasting of cash flows).		

Source: compiled by the author.

Under the proposed model, if Avis defines its business model as a car rental service, the primary business activity would be cash inflows from rentals. Applying an extended definition of the business activity, proposed by the author of thesis (more detailed analysis in Section 4.3) would fully solve the issue of classification for cash proceeds from sale of fixed asset as well.

Operating cash flows are usually used as a metric to measure a company's ability to generate cash flows internally and they help investors gain important insights into the company's core business. When certain cash flows are not generated by the company's continuous and core operations, or are subject to management discretion in treatment, they would behave differently from operating cash flows in terms of future recurrence. As noted by Mulford and Comiskey (2002) various problems with the current standards and flexibility allowed for management in reporting operating cash flows could lead to inclusion of cash flows with doubtful recurrence in the operating section and could generate misleading signals about the company's cash generation power. The following section shows how the definition of a business model would be used for addressing the problem areas in activity the classification of activities and improving the quality of information in the cash flow statement.

4.4 Business activity and classification issues

Under the current regulation, the cash flow statement classifies activities into operating, investing and financing. As not all cash flow situations are addressed in the standards, it leads to diversity in reporting classifications of certain common cash flows. Standard setters have paid attention to those issues in the recent years and have started discussions. For example, the FASB issued ASU 2016-2015, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments,* which addressed eight specific issues of classification: debt prepayment and debt extinguishment costs, settlement of zero coupon bonds, contingent consideration payments made after business combinations, proceeds from settlement of insurance claims, proceeds from settlement of corporate-owned life insurance policies, distribution received from equity method investees, beneficial interests in securitization transactions and separately identifiable cash flows and application of the predominance principle (Schmutte & Duncan, 2019). The IASB has followed with the Discussion Paper *Improving the Statement of Cash Flows* in 2017, the purpose of which was to stimulate debate

on how to make the statement more useful. It has raised the following topics for discussion: the usefulness of information about cash flows, the classification of cash flows, cash equivalents and management of liquid resources, reconciliation of operating activities, and the direct or indirect method (FRC, 2017).

In the academic literature the issue of classification in the cash flow statement has been mainly approached with empirical testing of classification shifting in the statement for manipulation purposes (DeFong & Hung, 2003, 2007; Zhang, 2007; DeFong et al., 2011) and comparability issues (Hollie et al., 2011; Alfonso et al., 2018; Ayers et al., 2018; Gordon et al., 2017; Kiaupaite-Grušniene & Alver, 2019; Jeanjean & Stolowy, 2008; Weiss & Yang, 2007). Operating cash flows are usually perceived by financial statement users as sustainable, thus they have valuation consequences for investors (Mulford & Comiskey, 2002). There is also a general perception that operating cash flows are not subject to manipulation as much as accrual-based earnings. However, that is not always the case. As noted by Mulford and Comiskey (2002) reporting cash flows does allow a certain level of flexibility, especially in the area of classification between operating, investing and financing activities. For example, a company can shift cash flows from investing to operating activities or from financing to operating, while the total change in cash would remain constant. Charitou et al. (2017) note that unlike earnings management that entails elements on improper manipulation and changes in measurement, the classification choice allowed by the IFRSs cannot hold the manager liable for misreporting. Because operating cash flows are the core-stone of assessing a company's performance, report preparers might show improvement in their apparent operating performance to gain market rewards.

The author of the thesis states that the issue of classification has been addressed too narrowly and too empirically in the previous research. The conceptualization of the classification decision and the level of firm theory would be the first step, as shown in the previous section. Williams et al. (2006) provide compelling evidence of the decline in status of behavioural research in accounting and the dominance of the neoclassical economics research paradigm. They note that while behavioural research previously stood as a counter-balance to the economics based agenda, such research has now been largely marginalized in the academy. As a classification decision is reflecting management's behaviour, it should be rooted in a theoretical concept. The author proposes that classification should be addressed in the following structure:

1) Theory of the firm: proprietary.
2) Definition of the business model.
3) Redefinition of activities:
    a. Business activity (operating and investing).
    b. Financing activity (debt/creditor and equity/shareholder).

The author of the thesis proposes to use the proprietary theory, as it would link the cash flow statement conceptually to other financial reports (a more detailed discussion is provided in Section 4.6, outlining the proposed changes in the cash flow statement).

The classification should start with identifying what is the main business, which in turn allows to determine the boundaries for operating, investing and financing activities. It is proposed that business activities could encompass operating and investing activities. This broader definition takes into consideration that operating the business also involves investing in plant, property, equipment in order to continue to operate. Moreover, the operating and investing sections do not separate assets at fair value from other assets, for investment in a trading portfolio could be central to the business, as can be an investment in available-for-sale equity securities that are part of the strategic objective (i.e. to invest in firms with related or complementary technology). In addition, the current classification of interest-bearing securities under the investing section is not correct, as for most non-financial

firms these are financial assets and should be reported under financing activities along with interest. The following section will deal with the major problem areas in each group of activities currently used and provide justification for the proposed changes, with the criteria of information content improvement for the financial statement users.

4.4.1 Business model and business activities

Barker (2010a, 2010b) addresses the lack of conceptualization in accounting standards for separate reporting of flows arising from provision of finance to a company (financing activity) and other activities (operating activities). IAS 7 provides some guidance, but not with clarity. It states that financing activities are the ones that "result in changes in the size and composition of the contributed equity and borrowings" but does not define the term "borrowing". The distinction between operating and investing activities is also particularly important, as for some entities direct investments are not part of the main business. The reason for such investments could be excess liquidity, favourable market conditions, or other reasons and such investment would have a return profile different from that of the main business (Baksaas and Steinheim, 2019). Investing companies, on the other hand, would have investing activities as their main business. Consequently, as definitions are not clear, classification is not consistent. IAS 7 states that interests paid and received are "usually classified as operating cash flows for a financial institution" but there is "no consensus on the classification of these cash flows for other entities" (Barker, 2010b, p. 393). As there is no financing section of the balance sheet, there is no articulation of those activities on all financial statements. Therefore, interest expense classified as financing expense in the income statement could be classified as an operating cash flow in the cash flow statement. Even more, interest expense on a zero-coupon bond could be included in financing cash outflows, while cash payments for interest expense would be reported under the operating section. Nurnberg (2006), when analysing SFAS 95 has noted that the definitions of operating, investing and financing activities in the cash flow statement parallel those of operating, investing and financing decisions in finance literature. Such distinctions are made in finance literature because it is often useful to separate investing decisions from financing decisions or separate both from operating decisions. However, it is recognized that such decisions are often interlinked.

Because the objective of financial reporting is to provide information that is useful in credit and investment decisions, the cash flow statement should provide information needed for credit and investment decision models. Many of those models are specified in finance literature and use cash flows in financial ratios. Weston and Copeland (1992) and Stickney et al. (2007) suggest usage of financial ratios, which use operating cash flows in either the numerator or denominator. Palepu et al. (2004) and Penman (2003) suggest usage of various measures of FCF to assess the firm's value. The usefulness of those ratios and cash flow information in general should be enhanced when the cash flow statement classifications are consistent with the ways cash flows are used in credit and investment decision models in the finance literature. Finance literature notes that investing and financing decisions are interrelated, and that both are related to operating decisions as well, but that for many purposes it is useful to distinguish them. Importantly, finance literature typically presumes a non-financial company, when distinguishing among operating, investing and financing decisions. Additionally, finance literature considers income tax effects to be part of these decisions (Nurnberg, 2006).

According to finance literature:

1) Operating decisions address questions such as which goods and services to sell, which goods and services to purchase, which employees to hire and at what compensation levels, which facilities to rent, and so on. Accordingly, operating decisions deal with

the acquisition of short-term assets and the incurrence of short-term liabilities. Often, in finance literature, a reference is made to working capital management, when discussing operating decisions. The identification of operating activities is a declaration, of what business the firm is in, how it "makes money". Therefore, while interest-bearing debt assets and liabilities might be financing activities for a manufacturing firm, they would be an operating activity for a bank that makes money from lending.

2) Investing decisions address the question as to when and where to spend cash, for example how much a company should invest and what specific assets a company should invest in. Such expenditure is motivated by the desire to maximize shareholder and company value and, as a result, is only made when the expected net present value is positive. From the finance perspective, all decisions to acquire assets used in the business are investing decisions and are fundamentally alike, whether involving long-term assets such as plant and equipment, or short-term assets such as inventories and trade receivables. Accordingly, from the finance perspective, investing decisions include operating ones. For analytical purposes, decisions on the acquisition of long-term assets are often viewed as investing decisions, whereas decisions on the acquisition of short-term assets are viewed as working capital management decisions.
3) Financing decisions deal with the volume and structure of a company's financing, for example raising cash from investors and disposing of cash. Financing decisions address whether the cash required for investment should be generated by debt or equity securities, how excess cash balances are to be stored temporarily and, if distributed to the owners, whether as dividends or by reacquiring own shares. From the finance perspective, financing decisions deal with raising cash from investors for business activities and returning cash to debt and equity claimants, not the acquisition of goods and services themselves, which are operating and investing decisions. From the finance perspective, a basic distinction is drawn between financing activities with investors versus operating and investing activities with customers and suppliers. A company raises cash from bondholders and shareholders to finance the business and makes interests and dividend payments to them. A company receives cash from customers and pays cash to suppliers of services and goods, including inventories and plant assets. Typically, value is created and profits are earned by trading with customers and suppliers, not investors. Such distinctions are based on Modigliani and Miller (1958), which is a foundational principle in finance (Nurnberg, 2006). Additionally, from the finance perspective, all borrowing decisions are fundamentally alike, whether involving long-term liabilities such as mortgage or bonded debt, or short-term liabilities, such as bank loans or trade payables. For analytical purposes, long-term borrowing decisions are viewed as financing decisions, whereas short-term borrowing decisions are often viewed as working capital management decisions.

According to the current regulations for the cash flow statement, it is apparent that trichotomy differs from finance literature (Nurnberg, 2006). As a result, often similar cash flows are reported differently while different cash flows similarly, thus the quality of comparability, as defined by the IFRSs, is violated. For example, cash outflows on equipment may be classified as operating or investing outflows, depending on whether selling or renting equipment is the predominant source of cash. In addition, for non-financing companies, operating cash flows are contaminated with interest payments and interest and dividend collections, income tax effects of investing and financing activities, and so on. Therefore, a very clear explanation from the management as to how it designates activities must be

provided to financial statement users, in order for them to understand the company's business model.

Because cash flows from operating, investing and financing activities are often interrelated, their arbitrary classification in the cash flow statement may impede rather than enhance the analysis of cash flows by report users. Analysis and usefulness of the cash flow statement is further impeded by the fact that the classification in the cash flow statement does not parallel the trichotomy of finance literature. Penman (2003) notes that currently prevails a confusion in the classification of investment in the business with investment of cash from the business in financing activities. A company generates free cash (cash left after investing in the business) and uses that cash flow (in financing activities) for distribution to shareholders (dividends or share repurchase), payment of interest or redemption of debt, or purchase of financial assets to use this excess cash. Therefore, treating investment in financial assets as investment in the company operations, overstates investment in the company, and later the treatment of liquidation of the financial asset as the liquidation of a business operation understates investments. Currently the investment section of the cash flow statement contains only that investment which is recorded in the balance sheet, namely capital expenditures (property, plant and equipment) and cash acquisitions. Investment in other assets, such as R & D, brand building, investment in supply and distribution chains, investment in employees, incentives to maintain customer loyalty, start-up costs, etc., are included in cash outflows from operations, rather than investments, as they are expensed in the income statement. Accordingly, cash flows from operations are not really cash from operations, but they also include investments. Analysts usually treat cash flows from operations as the cash which businesses generate, separate from accruals, but in reality, it is based on the accrual concept defining which investments are placed in the balance sheet and which ones are expensed immediately.

Classification in the cash flow statement for the underlying transaction has to be consistent with its classification in the balance sheet and the income statement. The balance sheet and income statement standards are more extensive than the one for cash flow reporting. Additionally, consistent classification of transactions across a company's financial statements enhances financial statement articulation and understandability (Nurnberg & Largay, 1996). In addition, as inter-entity comparability is a desirable qualitative characteristic of accounting information (SFAC – II, 1980), similar cash flows must be reported consistently across entities. Standard setters have sought, so far without success, to precisely define activities, which are to be classified as operating, and to distinguish them from the non-operating ones, like investing and financing. It is especially ambiguous to draw a line between operating and investing activities for financial institutions and manufacturing companies that provide long-term financing to their customers.

The author of this thesis believes that financing from such sources as suppliers and banks is in essence linked to the operational level of the company (usually for the short term and for main products) while the third-party financing, such as long-term bonds or mortgage loans, is of a more general nature and more related to investing activities.

As the issue of classification has been addressed too narrowly, the author proposes the following solution. At first, the conceptual issue is to identify the firm theory to be used: entity or proprietary. The critical difference in those theories lies in the perception of equity: under the entity theory, owner's equity is perceived as an obligation of the company to its owners while under the proprietary approach, it is viewed as property of the owner and any payment to the outsider necessary to conduct the business is cost or expense (Chow, 1942). The IASB has noted the importance of equity theories on the distinctive determination and treatment of equity and liabilities (Maglio et al., 2017), but has not taken them into consideration even for this particular issue. However, as those theories postulate how balance

sheet elements are related and have implications for the definition of liabilities and equity, they also have consequential influence on the income statement and the cash flow statement. For example, a decision of classifying a financial instrument as a liability, instead of equity, will have an impact on reported earnings as dividends on financial instruments classified as liabilities will appear in income statement along with interest expenses. Secondly, the definition of a specific business model would lead to a predictable and comparable classification decisions for specific transactions. The issue of distinction between operating and financial-type assets and liabilities has been identified in literature (Dichev, 2017; Nissim & Penman, 2007). Operating assets like PPE are acquired to be primarily used in company operations, where selling them in the open market is infrequent. Therefore, their primary value to the company is value-in-use. Financial type asses, like marketable securities have value, which is mostly independent from the company's operations. Their primary value is value-from-exchange, eventually realized in an external market. Since operating and finance-type assets have different business functions, their accounting and classification should be different as well.

4.4.2 Operating cash flows

Operating activities represent daily operations of a company and are the most important activities of the company. Consequently, cash flows from operations are the most important sources of cash. The largest inflows in this category should logically be collections from customers from cash sales or collection of receivables. Operating cash flows, under current regulations, consist of cash effects of transactions, which are determining net income, such as collections from sales, payments to suppliers and employees, other operating expenses. Generally, cash provided from operations, is a cash flow version of the accrual-based income statement. Mulford and Comiskey (2002) draw attention to important exceptions. For example, gains and losses from sale on investments or fixed assets are included in the accrual-based operating profit in the income statement, but cash proceeds from their sale are reported under investing activities in the cash flow statement. Taxes paid are another example of misstatement, as in the cash flow statement they are reported under operating expenses, while in the income statement income taxes on such items as gains and losses on discontinued operations, extraordinary items, or cumulative effects of changes in accounting principles are reported with their respective items and are excluded from profit from continuing operations. Gains and losses pertaining to extraordinary items are also excluded from profit from continuing operations. While reporting of cash proceeds from those operations depends on the nature of the underlying transaction; for example cash proceeds from disposal of fixed assets would be classified as investing activities, while cash proceeds from retirement of debt would we classified as a financing activity. This allows income statement users to understand which earnings would be recurring and which not. Currently, the cash flow statement does not provide this information.

Although accounting practitioners and academics talk about comparability of financial statements, the fact that interest paid could be treated as an operating activity while dividends paid is treated as a financing activity makes it difficult to compare the performance of companies that make different financing choices. Wamper et al. (2009) note that if a company uses debt financing, it can classify interest paid as an operating activity, while a company which uses equity as a financing source, reports dividends under the financing activity section. This makes reports incomparable.

Another significant issue in operating activities is treatment of financing of receivables. Originally, receivables were financed through borrowing, with receivables pledged as collateral. Money received was appropriately classified as a financing activity. However, the recent trend of keeping debt off balance sheet has led to increasingly selling receivables

with or without recourse. Economically, these activities still represent a financing activity, but the current regulation permits their classification as an operating activity. Such treatment is attractive for companies, as it both keeps the borrowings off balance sheet and inflates cash provided by operations. Thus, this treatment is inconsistent.

Another distortion to operating cash flows comes from the classification of dividend income as an operating activity (SFAS 95) or operating, investing or financing activity (IAS 7), rather than an investing activity. There is a possibility of inflating operating cash flows, if the company has significant investments in affiliated companies. Inconsistency also comes from the fact that dividend income is generated from investments. If dividend income is shown in operating activities, and investment is shown in investing activities, the user of financial statements would not be able to see the whole picture of the investment strategy of the company. Similarly, treatment of income tax as an operating activity, while the gain being taxed is included in the investing activity, creates distortion within the statement. For example, a company has a low operating profit but has a large gain on sale of investments: a large part of pre-tax income is from the investment gain, thus a large part of income tax expense is related to an investing activity. In the cash flow statement, however, the gain is deducted from operating activities and is included under investing activities, while the income tax expense on the gain remains in the operating section, generating negative cash flows from operations (Weiss & Yang, 2007). Because cash flows arise from operating, investing and financing activities, tax-related cash flows should be reported in those specific areas as well, so that payments and savings are included in each of them (Miller & Bahnson, 2012). Deferred employee compensation, which is paid in form of stock options that are off the balance sheet when issued, also distorts operating cash flows. When the company later redeems the options by paying cash, the transaction is treated as a financing activity, when in reality it is not any different from salary payment, and as such, should be treated as an operating activity. SFAS-95 requires trading securities to be treated as an operating activity, rather than investing, which allows companies to easily shift cash flows between years by switching securities between the parts of "trading securities" and "cash equivalents".

Arthur et al. (2010) and Arthur and Chuang (2008) have raised the idea that operating cash flows could be separated into two groups:

1) *Core cash flows* – receipts from customers and payments to suppliers and employees, which are derived directly from the company's income generating (operating) activities and are usually the largest component.
2) Non-core cash flows – interest related flows, tax payments and dividends received, which are more related to financing and investing activities, rather than derived from the main operating activities.

Their empirical testing shows that non- core cash flows persist less significantly into the firm's future performance, compared with core CFO components, because they are usually made according to a present schedule, providing little incremental information with respect to future profitability (Dechow et al., 2008; Cheng & Hollie, 2008). The relevance of this distinction is a bit taken into consideration by IAS 7 (Illustrative Examples section, p. 779), where cash flows from operating activities in the direct method are partitioned into two sections: the first section includes Cash receipts from customers and Cash paid to suppliers and employees, and the overall subtotal is referred to as Cash generated from operations. The second section includes non-core components – in the IAS 7 example these are Interests paid and Income taxes paid. Taxes paid commonly relate to the taxable income of the firm in the previous accounting period. Dividends received from associated companies are not included as part of the income of the group (IAS 128, para 11), but are instead deducted from the carrying amount of the investment. According to the current regulation, operating cash flows presented on the cash flow statement consist of cash provided by all operating

activities, both continuing and discontinued. The proposed rearrangement of the cash flow statement requires clear separation of such activities, as it directly influences users' forecasting of future cash flows.

Cash flow from purchase and sale of trading securities. In most cases, such transactions are reported in the investing section of the cash flow statement. For example, debt and equity investments into securities classified as available-for-sale securities held till maturity would be reported in the investing section. Cash inflows from those investments, in form of interests or dividends, would be reported in the operating section. On the other hand, debt and equity investments in securities classified as trading securities, would be reported in the operating section: both inflows from interests and dividends and cash flows from the purchase and sale of the investment itself. Because such a purchase can make significant amounts, especially relating to operating cash flows, they could potentially distort this measure. The proposed model solves this problem by requiring any transactions not related to value created by a business model to be reported as "other activities". Only for financial institutions is such trading in securities a primary operation. While for non-financial companies, these activities are essentially a simple cash management technique and do not occur regularly (invest excess cash not in operation expansion, but in securities and trade them: it is a form of gain, not revenue generation). Moreover, such transactions allow a leeway for management to manipulate operating cash flows just by timing purchases or sales of trading securities. Also, sales and purchases of trading securities could be perceived as non-recurring cash flows. As noted by Mulford and Comiskey (2002), such transactions do not have the same recurring quality and operating cash flows generated by providing goods or services.

Capitalized expenditures/cash expenses relating to investing activities. Already pointed out by Mulford and Comiskey (2002), the effects of capitalized expenditure on net income could be significant, and a lot of literature deals with identifying the effects of those transactions. However, it should be noted that those transactions affect operating cash flows as well. Cost capitalization increases the asset and earnings and the subsequent depreciation of the asset reduces earnings in the future time periods. The net effect on earnings is the difference between the amount capitalized and the amount amortized. In terms of cash flow statement, under the current format, capitalized costs are classified as investing activities. As the reason for capitalization is the expectation of future benefits, which follows the definition of fixed asset recognition, operating cash flows are not affected by a capitalization transaction. Moreover, because depreciation is a non-cash expense, it does not reduce operating cash flows in the future periods, either. Thus, unlike earnings, where capitalization increases them and the subsequent depreciation reduces them, capitalized costs never reduce operating cash flows. From the view of operating cash flows, capitalized costs never occur.

Two major investment costs with flexible treatment are research and development costs and cash expenses related to restructuring changes. Luo (2004) notes that expensing research and development mismatches costs and related future benefits, as the purpose of R&D is generation of future value. In addition, restructuring charges are typically investments made to streamline the company's operations for providing future profitability. Both of those actions typically involve substantial cash outflows from operating cash flows, and could skew the reported results downwards. Some high-growth firms may not generate positive operating cash flows in the current period because of heavy investment, but could have excellent cash inflows when investments turn out to be successful. Therefore, the ability of such investment-type cash outflows to indicate future cash flow probability is different from periodic operating cash flows, which typically do not bring future benefits.

The model proposed in this thesis, solves this issue by joining operating and investing activities into a business activity, which incorporates both costs expensed in the income statement and costs capitalized via the balance sheet as both categories are used either to maintain the current operating base or to expand it. Another issue with capitalized cost is that there are major differences in how companies treat them, thus reduction in the comparability of reports; as some companies capitalize most of certain expenses while other very little or none at all. Again, the model proposed would allow seeing this issue more clearly. As capitalized expenses are mostly used for maintaining the operational base or expansion (for example R&D and software development), their disclosure would allow financial statement users to identify those expenses and compare them with companies in the same industry. Any significant difference would warrant additional attention and explanation, for example whether companies treat those expenses differently or one simply does not have investments in R&D, which would increase the quality of information.

Recurring and non-recurring cash flows. Literature and standard setters focus a lot on the need to adjust net income for recurring and non-recurring items in order to have a sustainable measure of earnings (Mulford & Comiskey, 2002). A similar approach should be used in the cash flow statement, and cash flows from operations should clearly identify recurring and non-recurring cash flows. Most non-recurring cash flows are related to sales of assets and the effects are on investing and operating cash flows (via gains or losses on such a transaction), while those cash flows cannot be expected to continue in the future, thus have to be removed from projections. Restructuring changes, which include asset write-downs and provisions for severance compensation, are also examples of non-recurring cash flows, which might have little cash outflow at the inception. However, while asset write-downs might result in future cash inflows from the sale of the asset and would be reported in investing activities, changes in current accruals would affect operating cash flows for the current period.

The effects of those unusual or infrequent transactions contain less predictive ability for future cash flows compared to regular core activities (for example, cash flows from discontinued operations). If such activities are pronounced by reporting companies as non-recurring, they should be irrelevant in forecasting future cash flows. Gu and Chen (2003) find that analysts recognize that to some extent and decide to keep or remove some of the "non-recurring" items from their forecasts. Again, to obtain sustainable and forecastable operating cash flows, the users have to be able to identify those transactions, which could be done with the proposed model. Burgstahler et al. (2002) and Doyle et al. (2003) find that the market does not fully incorporate the valuation implications of special items. Gu and Chen (2004) report that individual nonrecurring items inherently and qualitatively differ from each other and state that no accounting item is absolutely recurring or non-recurring and in practice, the appropriate treatment of potentially transitory components of earnings is a matter of practice. They identify four most frequent nonrecurring items: restructuring charge (22.13%), acquisition expense (13.59%), gain on asset sale (10.90%) and realized investment gain (7.89%). Financial analysts exclude the majority of these expenses from calculations of earnings. The model proposed by the author of this thesis allows to apply the same principle in the cash flow statement by introducing the subdivision of recurring and non-recurring activities under current business activities.

Manipulating operating cash flows through operations-related assets and liabilities. Even though it is perceived that the cash flow statement is least subject to manipulation, managers still have some freedom in manipulating it. One option is the timing of transactions relating to operating assets and liabilities. For example, inventories could be reduced by simply postponing replacement or accounts payable could be increased by postponing payments to suppliers, as both those actions boost cash flows from operations. However,

neither of them provides sustainable cash flows. If the amounts are significant, the financial health of the company could be distorted. The solution for this could only be usage of various analytical ratios and comparisons across companies to identify significant variances. Luo (2004) finds that the cash effects of selling accounts receivable that are subject to managerial discretion tend to be stable and have the same likelihood of recurrence as other operating cash flows. In addition, they are part of core operations, as receivables sold are generated from continuous operating activities. Moreover, the issue of factorization of accounts receivable could be treated differently. For example, if a company sells accounts receivable (without or with recourse), the proceeds are reported in the operating section. If a company borrows money and uses those receivables as collateral, proceeds are reported in the financing section. However, in the economic sense, from the business model point of view, both those transactions have the same purpose – short-term financing, thus should be reported similarly under the comparability concept. Charitou et al. (2017) note that unlike earnings management, that entails elements on improper manipulation and changes in measurement, the choise of classification allowed by the IFRSs cannot hold the manager liable for misreporting.

4.4.3 Investing cash flows

Research in the finance area provides wide evidence on the effects of corporate investments and divestments on future performance. The purpose of the investing section of the cash flow statement is to describe how management deploys cash to buy plant assets and equipment that generate operating income and cash inflows. In spite of this, information on the investments carried out by the firm during the year is not always readily available in the financial statements prepared under the current accounting standards. Currently, investing activities consist of changes in cash from making and collecting loans, purchase and sale of fixed assets, purchase and sale of investments (except for trading securities). Purchase and sale of securities that are held for trading purposes are reported in the operating section. Therefore, while cash used to invest in assets is classified as an investing activity, any income generated from the investment is reported in the operating section. For example, investment in shares would be reported as a cash outflow in investing activities, while dividend received could be reported as operating cash inflows; the sale of this investment at a gain would require the subtraction of the gain from the operating section while calculating cash flows from operating activities. Secondly, the investing section of the cash flow statement provides information only on those investments, which were financed with cash. However, investment transactions that are not financed with cash are not reflected in the face of the financial statement, and the users have to go through the notes to obtain this information or find a non-cash activity section in the statement, as those transactions have a direct influence on future cash flows (Livnat & Zarowin, 1990; Rodriguez et al., 2012). For example, if a company acquired other machinery at a cost of 10 billion, but only 1 billion was paid in cash and the rest with debt or equity, only 1 billion cash paid will be shown as the cost of acquisition in the cash flow statement, while 9 billion will be disclosed in the notes only. On the conceptual level, the rule of complete transaction presentation is broken (Weiss & Yang, 2007).

A distinction between cash equivalents (investments with no principal risk) and other marketable securities could also lead to confusion. Cash equivalents are treated as part of operating cash flows, while marketable securities as part of investing activities. If a company's financial manager does a lot of trading, large amounts of cash inflows and outflows would appear in the investing section, yet those numbers are irrelevant in understanding the company's performance.

Therefore, under the current regulation, the investing section of cash flows does not fulfil the objective of providing information for financial statement users to assist in assessing

future corporate performance. Cassis (2003) has proposed the following regrouping of the section of investing cash flows for analytical purposes (see Table 4.4).

Table 4.4. Cash flows from investing activities (in thousands of dollars)

Current		Proposed	
Disposal of fixed assets	40	Mandatory capital expenditure (net)	(20)
Purchase of fixed assets	(80)	Growth capital expenditure (net)	(140)
Goodwill acquired	(120)	Return on investments in subsidiary	5
Change in loan receivables	(50)	Return on investment in subsidiary	5
Change in other non-operating assets	(20)	Other Investing activities (net)	(70)
Investment in subsidiary	10		
Net cash used in investing activities	***(220)***		***(220)***

Source: Cassis, 2003.

This proposed rearrangement follows the idea that it is important to distinguish between investment required for maintaining the current operating base (mandatory capital expenditure) and investments made voluntarily to expand the operating base (growth capital expenditure). Cash earnings are not FCFs, because companies have to reinvest in working capital, property, plant and equipment and intangible assets simply to sustain the current operating base. As business grows in volume, receivables, inventories and payables would increase proportionally and would require cash to finance it. To increase the quality of information for the users, the investing section should also provide information as to how much cash was required for expansion, as opposed to the regular maintenance of operations.

Therefore, the author of the thesis proposes that for improved future cash flow projections it should be required to separate cash flows relating to operation-sustaining and operation-expanding items. The operation-sustaining component is the one that occurs regularly to maintain the current level of revenues and should be covered by current cash flows. Growth investments exist only when a company is expanding, and it could be financed and repaid over time, instead of necessarily being covered by cash flow from operations.

This separation clearly shows that investing activities are supporting operations, thus a broader definition of a core business activity could incorporate both operating and investing activities. It would provide information to the users about the major value creating activity of the company and help forecast future cash flows from those activities. However, it should be recognized, that there might be a need for the standard setter to define a new category – a business activity.

Research and development issues. In view of changes in the economy and rise of research and development intensive industries, it would also be interesting to consider expansion of the definition of investing activity to include intangibles, which are currently expensed. To improve the comparability of reports, spending on intangible assets could be capitalized and amortized with some specific rules. It could better reflect a potential for future value generation and future cash flows. Lev et al. (2005) conclude that capitalization and amortization of R&D provides information not fully reflected in stock prices, which means financial statement users are not able to obtain this information from the current format reports. R&D investments are related to future returns and cash flows.

Sources and uses of cash. Crichton (1990) proposes to perceive the company as a cash-generating machine and considers the purpose of the cash flow statement to be the explanation of how the company generates and how it spends cash. Companies have two sources of cash: internal and external. Internal sources comprise existing cash funds, cash generated from utilization of existing resources and cash generated from divestment of non-current assets. The external one is cash received from new share issues and borrowings from lenders. The utilization of existing resources consumes cash in order to generate cash.

This covers not only mandatory cash payments for operating expenses, but also funding required for replacement of existing resources that have reached the end of useful life. This again points out the controversial issues in the classification of activities and, correspondingly, cash flows from them. Cash flows from operations are supposed to be a key metric in assessing the company's ability to generate cash from internal operations and remain viable (Luo, 2008). Steyn and Hamman (2003b) have proposed the following rearrangement (see Table 4.5 and Table 4.6) to the cash flow statement, disaggregating the statement and focusing on sources and users of funds.

Table 4.5. Cash flow statement as per AC 118 (in thousands of dollars)

Cash Flow statement	**2003**	**2002**
Cash flows from operating activities	***4,835***	***1,922***
Cash generated from operations	8,285	4,973
Interests received	967	1,597
Dividends received	25	51
Interests paid	(2,654)	(2,826)
Tax paid	(259)	(302)
Dividends paid	(1,529)	(1,571)
Cash flows from investing activities	***(2,814)***	***(3,945)***
Purchase of plant, property and equipment	(10,601)	(4,122)
Purchase of intangibles	(207)	(121)
Investments and loans	7,987	(610)
Proceeds from disposal of PPE	798	1,276
Proceeds from disposal of subsidiaries	109	15
Acquisitions of subsidiaries	0	(383)
Cash flows from financing activities	***(7,145)***	***7,770***
Proceeds from long-term borrowing	192	6,419
Repayment of long-term borrowing	0	0
Short-term loans	(5,911)	1,351
Proceeds from issues of share capital	0	0
Net forex and derivative loss	(1,426)	0
Net increase/(decrease) in cash and cash equivalents	**(5,124)**	**5,747**
Net forex adjustment to cash balances	**(949)**	**999**
Beginning balance of cash and cash equivalents	**7,056**	**310**
Ending balance of cash and cash equivalents	**983**	**7,056**

Source: Steyn & Hamman 2003b.

Steyn and Hamman (2003a, 2003b) note that although cash employed in operating assets is included in cash flow from operating activities, cash utilized to maintain non-operating assets supporting those activities is not. A company, which has cash flow problems and has high operating assets compared to non-operating assets would be identified as cash inflexible by the current format. However, the company that has high non-operating assets as compared to the operating ones, and does not generate sufficient cash from daily operations to maintain the existing resource base, may not be identified as cash inflexible. For such a company, cash spent on maintaining the existing resource base is just as vital as maintenance of operating assets for the operating-assets intensive company. Their proposed format addresses this weakness. This is especially important for research-intensive companies, which are not capital intensive and have many research and development activities, which are expensed into the income statement, but could have an impact on future cash flows.

Table 4.6. Proposed format of cash flow statement (in thousands of dollars)

Cash Flow statement	**2003**	**2002**
Cash generated internally	***9,277***	***6,621***
Cash generated actively by existing resource base	8,285	4,973
Cash generated passively		
Interests received	967	1,597
Dividends received	25	51
Mandatory cash utilization and maintenance of existing resource base	***(9,992)***	***(3,723)***
Interests paid	(2,654)	(2,826)
Tax paid	(259)	(103)
Compulsory loan repayments	0	0
Cash used to maintain existing resource base:	***(7,263)***	***(794)***
Proceeds from disposal of PPE	798	1,276
Replacement of PPE	(7,963)	(1,964)
Replacement of intangible assets	(207)	(121)
Proceeds from disposal of subsidiaries	109	15
Acquisitions of subsidiaries, as replacements	0	0
(Deficit)/Residue of cash generated internally before discretionary application	***(715)***	***2,898***
Discretionary utilization of cash	***2,736***	***(4,921)***
Dividends paid	(1,529)	(1,571)
Secondary tax on companies paid	(184)	(199)
Voluntary loan repayments	0	0
Share repurchases	0	0
Cash from discretionary investing activities:	***4,449***	***(3,151)***
Acquisition of subsidiary as expansion	0	(383)
Expansion of PPE	(2,638)	(2,158)
Discretionary investments and loans	7,087	(610)
(Deficit)/Residue of cash generated internally	***2,021***	***(2,023)***
Cash generated externally	***(6,681)***	***8,057***
Proceeds from long-term borrowing	192	6,419
(Repayment)/proceeds from Short-term loans	(5,911)	1,351
Net forex and derivative loss	(1,426)	0
Bank Overdraft	464	287
Proceeds from issues of share capital	0	0
Net increase/(decrease) in cash and liquid resources	**(4,660)**	**6,034**
Net forex adjustment to cash balances	**(949)**	**999**
Beginning balance of cash and liquid resources	**7,343**	**310**
Ending balance of cash and liquid resources	**1,734**	**7,343**

Source: Steyn & Hamman 2003.

The above discussion shows that the main information users are trying to obtain from the sections of operating and investing activities in the cash flow statement is the one needed to understand how available funds are used and how the current usage of funds would affect future cash flows. Therefore, the author of this thesis claims that the following information should be readily available:

1) Cash flows generated from the main business activities:
    a. Recurring (forecastable).
    b. Non-recurring (non-forecastable).
2) Cash flows used to maintain the current business activity level.
3) Cash flows used to expand the current business activity level.

It shows that operating and investing activities are too much interlinked and continue to provide major issues in classification and comparability. Therefore, the author proposes to combine operating and investing activities (related to value generation by the business model) into a joint business activity. Investing activities unrelated to the company's business model (i.e. investment in marketable securities by a publishing company) should be recorded under the proposed "other activities" section.

4.4.4 Financing cash flows

Financing cash flows consist of changes in cash resulting from borrowing money and repaying loans, and from obtaining resources from owners and distributions to them. In view of the author of this thesis, the proprietary theory is not applied consistently under the current regulation, as proceeds from debt financing and owners' investments are both classified as financing activities, while interests paid are classified as an operating cash outflow and dividends paid as a financing cash outflow.

One of the major drawbacks in the presentation of financing activities in the cash flow statement is related to failure to recognize financing receivables as a financing activity. The second is the omission of major non-cash financing instruments from the cash flow statement. Both of those issues can help conceal the full extent of new financing engaged by the company. It should be required for companies to report their full debt service payments (principal plus interest) as financing outflows. Only then can users have useful information for judging whether a company can cover its debt service with its cash flows from operations. As Miller and Bahnson (2009, p. 23) well put, "suppose a bank officer is assessing whether a borrower has sufficient cash flows to cover mortgage payments of 1,500 per month, including an interest of 1,300. The banker would definitely not consider the 200 principal repayment to be the only cash outflow for monthly debt service". Consistent with this view, Cassis (2003) proposed the following regrouping in the section of financing cash flows (see Table 4.7).

Table 4.7. Cash flows from financing activities (in thousands of dollars)

Current		Proposed	
Cash provided by borrowing	100	Line of credit borrowings	150
Net cash provided by equity offering	40	Scheduled principle repayments	(100)
Dividends declared and paid	(20)	Additional term borrowings	50
		Cash provided by borrowings	***100***
		Additional stock issues	90
		Treasury stock purchased	(50)
		Cash provided by equity offering	***40***
		Dividends declared and paid	(20)
Net cash provided by financing activities	***120***	***Net cash provided by financing activities***	***120***

Source: Cassis, 2003.

The author of this thesis states, that such regrouping is also consistent with the proprietary theory, as it clearly separates debt financing from owners' investments. Such separation provides more information for the users in analysing financial statements, for example calculating return on investment, liquidity, solvency measurement forecasting of cash flows, etc.). It also makes the cash flow statement more aligned with the income statement and the balance sheet.

Therefore, this separation is incorporated in the proposed model for the cash flow statement.

Summary and conclusion. A major problem with the current three-way classification of cash flows as operating, investing and financing is that it is arbitrary. From the finance

perspective, acquisitions of inventory and fixed assets are fundamentally similar (both are needed for continuous operations of the company – the going concern concept), but the former one is classified as operating cash outflows and the latter as investing outflows under IAS 7 and ASC 230. Heath (1978) notes that the reason for such classification could be their different significance on the cash flows, as purchase of fixed assets is rather infrequent, usually large in amounts and management is likely to have more control over their timings, as opposed to inventory purchases.

Similarly, from the financial perspective, payment of accounts payable to suppliers and repayment of loans to creditors are fundamentally similar, though are classified as operating and financing cash outflows correspondingly. As cash flows from operating, investing and financing activities are often interrelated, the current classification may impede, rather than enhance the understating and analysis by the report users. Ohlson and Aier (2009) argue that for analytical purposes the definition of financing cash flows is not sufficient. While it is clear why bank borrowings are financing activities, why are increases in accounts payable not classified as such (as it is a source of financing for the company)? The contemporary finance theory, and the related financial statement analysis, depends on splitting a company's activities into financial and non-financial (operating) activities (Ohlson et al., 2010). The reason for that is that operating activities identify value-creating activities, which are reflected in the income statement starting with revenues and continuing with a list of matched operating expenses. Financial activities, on the other hand, are the "so-called zero NPV activities, as they are means to an end, namely implementation of operating activities" (Ohlson et al., 2010, p. 481). This separation principle allows analysists and users of financial statements to assess a company's performance.

The author of this thesis proposes to apply this finance principle for the cash flow statement, as it would allow to solve most of the classification issues for the transactions, the classification of which is based on the subjective opinion of the preparers of financial reports. For example, how should investments in non-liquid equity shares or non-strategic real estate investments be classified for an industrial company? If a clear business model definition is provided, all transactions which fall into the category of value-creation chain should be classified as business activities. Enhanced information content for the users of financial statements would come from recognition that a company engages in specific value-creation activities and their results must be evaluated separately from financing activities, which serve as support for the operating activities and from other activities, which are neither operating nor financing.

If the cash flow statement removed the classification of operating, investing and financing activities, and focused on presenting the generation and utilization of internally generated cash and the need for external financing, the debate on the classification of interests and dividends received and interests and dividends paid would become irrelevant (Steyn & Hamman, 2003). Currently, the distinction of cash flow between capital (investing activities) and revenue (operating activities) cash flows is based merely on the nature of the asset acquired. Rutherford (1982) defines capital outflows as those without which future cash inflows would be reduced in more than one financial period but argues that such distinction would be subjective; i.e. property, plant and equipment vs inventory purchases (Nurnberg, 1993).

The author of this thesis states that if the users want to assess future cash-generating ability of the company and its ability to maintain it, then it is necessary to report the expenditure required to maintain the current resource base separately from the expenditure required to expand the resource base, regardless whether it is capital or revenue expenditure. This cash used for maintaining the current resource base should be deducted from the cash generated internally after deducting mandatory cash payments. Even though it would still contain some

level of subjectivity in measurement, the users would be able to get more information. Separation of maintenance and expansion flows would allow the users to differentiate between the existing cash generating ability and additional cash flows in making projections. In addition, by comparing cash spent on maintenance of the asset base of various companies, the user would be able to evaluate companies' replacement policies, which affect future cash generation.

4.5 Format issues

The presentation of cash flows from operating activities has been controversial since the original development of the statement. Standard setters have always preferred reporting operating activities using the direct method, while preparers have consistently endorsed the use of the indirect method. The current standards permit the usage of either method, but as companies using the direct method are still required to present reconciliation of income to cash flow from operating activities, the indirect method prevails.

The presentation format for financial statements should be derived from the concept of similarity that is information, which shares the same characteristics, should be presented together. According to the concept of aggregation and comparability, information should be comparable between companies and reporting periods. Arthur et al. (2010) provide evidence in support of the current stance by the FASB to mandate the direct method of preparing the cash flow statement. More importantly, they add to mounting evidence that CFO components convey important information to investors beyond CFO as a summary measure. The IASB should consider the mandatory disclosure of the direct method CFS, which would make significant contributions to the quality of financial reporting, and enhance user appreciation of operating cash flow information. The disclosure of CFO components is beneficial to the prediction of future performance of the company.

Current financial statements suffer from several flaws. First, financial statements are generally very standardized and not aligned with business models, and not aligned with each other. Baksaas and Stenheim (2019) point that under the current regulation it is difficult for an external user to follow an item or transaction across the financial statements. The income statement is structured according to nature or function, the balance sheet has structured the items as current and non-current or according to liquidity and the cash flow statement is structured into operating, investing and financial activities. The standards still provide too many options, and the direct and indirect method for cash flow presentation is one of the examples. Kwok (2002) and PwC (2007) reported that investors and analysts are not satisfied with the format of financial statements, the cash flow statement in particular. Academic research and comments from the users of the cash flow statement indicate, that the users are rearranging the information from the statement to make it useful for decision-making (Steyn & Hamman, 2003; Miller, 2006; Cassis, 2003). However, so far not much has been done to improve the situation by the standard setters.

In the following section, the author of the thesis reviews the main format issue still present in the cash flow statement and discusses how the proposed model could address them.

Direct vs indirect method of presenting cash flows from operations. The format of any financial report does have an influence on the users. Stock and Watson (1984), extending on Libby's (1981) suggestions on improving decisions (change in the presentation and amount of information, education of the decision maker, replacement of the decision maker with a model) showed that the accuracy of human judgement could be influenced by the report format used for displaying accounting information. Maines and Daniel (2000) and Hirst and Hopkins (1998) investigated how alternative formats of reporting under the Income Statement affect user information retrieval and process, and found that both professional

(Hirst and Hopkins, 1998) and non-professional users (Maines & Daniel, 2000) were influenced by how they obtain information, process information and evaluate it.

The indirect method of preparation for the operating section of the cash flow statement has begun as an improvisation by the preparers, because companies did not provide cash flow statements (Miller & Bahnson, 2012). The complicated adjustments required by the indirect method are hard for users to understand and, in addition, provide corporate managers more leeway for manipulating the cash flow statement. The adjustments required to reconcile net income to operating cash flow in the indirect method can be confusing, especially because in many cases these adjustments cannot be reconciled to observed changes in the balance sheet accounts. Thus, if users are not able to understand detailed, line-item adjustments, they are left with an understanding of only a magnitude of the difference between net income and operating cash flow. If the purpose of the cash flow statement is to provide information on cash inflows and outflows, the direct method should prevail, as under the direct method, for example, the users can see the actual amounts of cash collected from customers and paid to employees or suppliers, can compare those inflows and outflows over time for the company or across companies. Investors can then gain a better understanding of the trends in the major causes of cash inflows and outflows for a corporation (Broome, 2004), which is consistent with the IASB and the FASB purpose of financial reporting in providing information that is useful for current and potential investors, creditors and other users in making rational decisions. Already back in 1986, when the original requirements for cash flow statement were issued by the FASB, credit analysts demanded that "the cash flow statement itself should focus on cash flows and not have its utility and relevance diluted by unwarranted injection of accrual accounting concepts" (Broome, 2004, p. 22). Investors use cash flow information as an important reality check on the quality of reported earnings, for example comparing the extent to which cash flows and earnings diverge over time. The old arguments that it is costly to produce a direct format statement are no longer valid with computerized accounting systems (Miller & Bahnson, 2012). If a proper account system is introduced, the cash flow statement could be produced directly from the cash account.

Corresponding to Watts and Zimmerman's (1978) positive theory of accounting, this discussion on the format of presentation explains the factors influencing standard setting. Watts and Zimmerman (1978) noted the various pressures driving the accounting standard process, the effects of various standards on different groups and individuals, and the allocation of resources. Certain factors (such as taxes, regulations, management compensation plans, bookkeeping costs, political costs) are expected to affect firms' cash flows and in turn are affected by accounting standards. Therefore, management has an influence on standard setting and implementation.

The author of this thesis claims, that without the direct format of the cash flow statement, the correlation between the cash flow statement, the income statement and the balance sheet is not clear. For example, under the direct method, revenue in the income statement is converted to cash collected from sales using the balances of receivables in the balance sheet, COGS in the income statement is converted into cash paid to suppliers using the balances of payables in the balance sheet, and so on. However, under the indirect method, this clear connection is lost, as adjustments come from various sections of the balance sheet and there is no clear link of adjustment to a specific income statement account. This diversion has created a serious problem for comparability, which has been further hindered in the report prepared under IAS 7, as the preparers have even started to use a different starting line for the operating section (i.e. profit, net profit, operating profit, etc.).

Starting point for reconciliation: net income, operating income, other comprehensive income. One of the essential issues in understanding the cash flow statement is the classification of cash flows into operating, investing and financing activities, as the concept of net cash flow has limited the informational content by itself. IAS 7 allows to classify some items, namely interests received and paid and dividends received and paid in different categories, according to the management choice. Moreover, as there is not standard definition for operating activities, there is no concrete definition for cash flows from operating activities as either. There is a general understanding that the cash flows from operating activities are associated with profit, however, the current standard requirement does not enforce it, hindering the comparability and understandability of cash flow statements.

The indirect format SCF starts with profit and adjusts it to changes in balance sheet items. The main problem here is the lack of definition for the starting figure: net profit, operating profit, comprehensive income. CF does not provide conceptualization on information-usefulness of the income statement (Barker & Penman, 2017). Standard setters have used the bottom-up approach that concentrates on getting the net profit figure right, which has led to focus on excluding certain items from net income and recycling items reported in Other Comprehensive Income (OCI) to net income in performance reporting. Because if net income is to "provide the summary of financial performance of an entity over time, then complete performance reporting requires all changes in equity be reported in net income in some period, expect for those resulting from investment by owners and distribution to owners" (Linsmeier, 2016, p. 488). Conceptually, those starting lines are different. Net profit summarizes current financial performance results of the operating company and is a clear indicator of current financial performance. OCI, on the other hand, presents information about the company's potential income and cash flows from transactions to be finalized sometime in the future (Du et al., 2015; Barker, 2010a). Barker and Penman (2017) point out that in current practice, cash flows relating to recognized non-current assets are reported in the investing section of the statement, while cash flows from unrecognized assets appear in the operating section. Consequently, investing cash flows are subject to accounting recognition, not cash flows incurred on investment, while operating cash flows include investments in unrecognized assets such as research and development, brand building. In such case, CFO becomes an accrual measure, reflecting the accountant's decision on asset recognition. It is suggested that the operating section of cash flows should correspond to the operating profit section in the income statement that is trading with customers while the investing section should include all investments: both recognized in the balance sheet and those recognized under adjustments.

A typical multi-step income statement divides activities into an operating and non-operating section and contains the following components.

Operating section. This section includes revenues and expenses from the company's primary operations: revenues, cost of goods sold or/and services provided, selling expenses, general and administrative expenses, and other operating expenses.

Non-operating section. This section contains activities, which are not the primary ones for the company, such as income from investments, gains and losses from sale of operating assets, interest income, and interest expense.

Therefore, according to the income statement, operating activities are related to the transactions and events used in determining the operating profit, not net profit. The cash flow statement, like the income statement, is a flow statement and the format is based on the same principle: to classify activities into operating and non-operating (further subdivided into investing and financing activities). Therefore, the interpretation and understanding of the cash flow statement requires understanding of two relationships: (1) the relation

between profit (operating or net) and cash flows from operations and (2) the relation between net cash flows from operating, investing and financing activities. Consequently, depending on the choice whether operating activities are treated as inflows and outflows of cash related to the transactions determining the net profit or operating profit, interpretation of net cash flows from operating activities is different. Under the direct method, the conversion process classifies the operating section of the income statement into its major components and determines the cash collection or payment for each of them. Under the indirect method, though, the reconciliation starts from net profit and thus the operating sections in the income statement and cash flow statement are different.

In summary, it could be said, that the direct method for the preparation of the cash flow statement would allow for better alignment of the cash flow statement with other financial reports. However, from the practical point of view, as the standard requires a reconciliation of profit to cash flows in any case, it is evident that prepares would continue using and lobbying the indirect method. Comparability could still be improved temporarily by clearly defining the starting point for the reconciliation – operating profit, as proposed in the model developed in this thesis.

Sources and uses of funds. Crichton (1990) perceives the company as a cash-generating machine and considers the purpose of the cash flow statement to be the explanation of how the company generates and how it spends cash. Companies have two sources of cash: internal and external. Internal sources comprise the existing cash funds, cash generated from utilization of existing resources and cash generated from divestment of non-current assets. The external one is cash received from new share issues and borrowings from lenders. The utilization of the existing resources consumes cash in order to generate cash. This covers mandatory cash payments but also funding required for replacement of the existing resources that have reached the end of their useful life. This leads to controversial issues in classification of activities and, correspondingly, cash flows from them. Cash flows from operations are supposed to be a key metric in assessing a company's ability to generate cash from internal operations and remain viable (Luo, 2008).

Steyn and Hamman (2003b) have proposed the following rearrangement to the cash flow statement, disaggregating the statement and focusing on sources and users of funds (as shown in Section 4.4.3). Steyn and Hamman (2003a, 2003b) note that although cash employed in operating assets is included in the cash flows from operating activities, while cash utilized to maintain non-operating assets supporting those activities is not. A company, which has cash flow problems and has high operating assets compared to non-operating assets, would be identified as cash inflexible by the current format. However, a company that has high non-operating assets as compared to the operating ones, and does not generate sufficient cash from daily operations to maintain the existing resource base, may not be identified as cash inflexible. For such a company, cash spent on maintaining the existing resource base is just as vital as the maintenance of operating assets for the operating-assets intensive company. This is especially important for research-intensive companies, which are not capital intensive and have many research and development activities, which are expensed into the income statement, but could have an impact on future cash flows.

Luo (2008) provides evidence that under the current format some important transactions that "are imbedded in footnote disclosures, possess significant incremental predictive value and have different persistence from the usual operating cash flows" (Luo, 2008, p. 429), namely the economic characteristics of some transactions, non-recurring cash flows, operating cash expenditure related to investing activities, account receivable securitization effects. Presenting them clearly in the statement, as in the suggested format, would significantly increase the informativeness of the cash flow statement. The above format also takes into consideration the separation between core and non-core activities of the

company. Unfortunately, core and non-core cash flows have not been clearly defined by the academics or the accounting profession. Cheng and Hollie (2008) point out that "core and non-core cash flows should be determined by their functional properties (i.e. parallel to the income statement, that is presenting core earnings till operating profit), or they should be determined based on their persistence levels (i.e., components that persist more are classified as core cash flows and those that do not are classified as non-core cash flows)" (p. 31). In their study they define *core cash flows* as cash flows related to sales, cost of goods sold, and operating expenses and *non-core cash flows* as cash flows related to interest, taxes, and other expenses, and conclude that such disaggregation of cash flow components significantly increases the predictive ability of the cash flow prediction model. Nurnberg (2006) notes that the objective of the cash flow statement is to report cash inflows and outflows of a company for a period. As such, the cash flow statement is a historical report of cash flows. However, for the purposes of analysis, the users need to know which cash flows are anticipated to recur in the future and which ones are not. Nurnberg (2006) even suggests that for analytical purposes information about cash flows currently not present but possible in the future should be reported with a particular focus on discretionary costs. For example, companies usually have discretion in determining the level of spending on advertising, maintenance, employee training, research and development. But by reducing such spending, or simply deferring them, operating cash flow would increase, but such reductions might have adverse effects on the future operations, thus an increase in operating cash flow would not be sustainable. Barker (2010b) also proposes how accounting standards should require separate reporting of obligations associated with "flows arising from the provision of finance to an entity ("financing") as distinct from all other activities of the entity ("operating") (Barker, 2010b, p. 391). Financing activities should be reported separately because conceptually they represent value distribution rather than value generation. However, Barker (2010b) notes that while investors find distinction between financing activities and other activities useful, neither "academic theory nor accounting standards offer a clear definition" of it nor a "consistent articulation of its conceptual foundations or practical application" (Barker 2010b, p. 401).

The author of this thesis states that the proposed theoretical conceptualization and application of the definition of business activity in the preparation of the cash flow statement would address and solve this issue.

Matching of short-term vs long-term assets and liabilities. The cash flow statement should also provide more specific information on the purpose of the company's short-term debt, which is of specific interest to some user groups, like suppliers or short-term lenders. Specifically, users would like to know whether the company's short-term borrowings are fully intended for financing current assets or a company is actually using short-term borrowings to repay current portion of long-term debt or to fund investment in fixed assets. The current format of the statement does not allow for such an analysis. Back in 2006, Uniformed Credit Analysis (UCA) proposed the following format for the cash flow statement (see Table 4.8), incorporating a combination of the income statement and the cash flow statement.

Table 4.8. Proposed format of cash flow statement (in thousands of dollars)

Pittman Plumbing Fixtures and Supplies, Inc. UCA Cash Flow Statements	**2017**	**2018**
Net sales	562,900	582,860
Change in current receivables	(2,392)	(6,062)
Cash from sales	560,508	576,798
Cost of goods sold	(453,472)	(473,457)
Change in inventory	(21,310)	(5,057)
Change in accounts payable	(8,148)	5,098
Cash production cost	(482,930)	(473,416)
Cash from trading	**77,578**	**103,382**
Selling, general and administrative expenses	(39,797)	(41,325)
Other operating expenses	(14,354)	(14,997)
Change in prepaid expenses	(779)	433
Change in accrued expenses	541	516
Change in other current assets and liabilities	0	0
Cash operating costs	(54,389)	(55,373)
Cash after operations	**23,189**	**48,009**
Other income (expense)	206	160
Change in other liabilities	0	0
Income tax expense	(4,378)	(2,545)
Change in deferred income taxes	0	0
Change in income tax payable	(1,748)	(797)
Taxes paid and other income (expense)	(5,920)	(3,182)
Net cash after operations	**17,269**	**44,827**
Dividends or owner withdrawals	(5,200)	(3,200)
Change in dividends payable	0	0
Interest expense	(7,601)	(7,656)
Change in interests payable	0	0
Cash financing costs	(12,801)	(10,856)
Cash after financing costs	**4,468**	**33,971**
Current portion of long-term debt	(18,894)	(19,766)
Cash after debt amortization	**(14,426)**	**(14,205)**
Change in short-term debt	13,800	20,375
Cash available for plant and investments	**(626)**	**34,580**
Cash used for plant and investments	(11,547)	(37,398)
Change in long-term debt	12,993	863
Cash surplus/(requirement)	**820**	**(1,955)**
Related parties – change in loans from owners	0	0
Change in contributed capital	0	0
Other changes in retained earnings	0	0
Change in cash and equivalents	**820**	**(1,955)**

Source: Miller, 2006.

The above proposal by Miller (2006) applies the entity theory, as dividends and interests payments are grouped together. The preceding discussion shows that the users of reports are rearranging them to fit their decision-making needs. There were some sporadic attempts to propose various changes to financial statement presentation in general and the cash flow statement in particular (Cassis, 2003; Miller, 2006; Penman, 2011; Dichev, 2007 and 2017) but there were no conceptual developments. Therefore, it could be stated that in the current format the cash flow statement does not fulfil the IFRS CF objective of financial reporting, which requires presentation of financial information about the company that is useful for capital providers (IASB, 2018) and does not fulfil the qualitative characteristics of comparability, verifiability, timeliness and understandability (IASB, 2018).

Classification issue with activities. The general reasoning for believing that cash flows are less subject to manipulation is that whatever preparers do, net change in cash should correspond to the difference between the beginning and ending cash balance. However, viewed as such, cash flows are just a mathematical value. Simply reporting cash flows is not enough, it is also necessary to analyse and understand them. As noted by Alver (2005) the net change in cash is "essentially meaningless" as "a firm can sell assets or incur liabilities to improve its cash position at the end of an accounting period" (Alver, 2005, p. 47). It is more meaningful to investigate the trend in the components of the cash flow and the relationship among them. The following illustrative examples (see Tables 4.9–4.12) demonstrate how different classifications could have an impact on the sub-sections of the cash flow statement, which in turn affect not only comparability but also interpretation of the statement.

Table 4.9. Classification Option 1. (Interests paid and received, dividends received are classified as operating activities, and dividends paid are classified as financing activities)

Cash flows from operating activities	***EUR***	
Cash receipts from customers	30,150	
Cash paid to suppliers	(23,700)	
Cash based gross profit	**6,450**	
Cash paid for operating expenses	(5,500)	
Cash based operating profit	**950**	
Interests paid	(270)	
Interests received	200	
Dividends received	400	
Income taxes paid	(1,100)	
Net cash flow from operating activities (cash based net profit)		**180**
Cash flows from investing activities		
Acquisition of interest in Company X	(260)	
Purchase of equipment	(250)	
Proceeds from sale of equipment	20	
Net cash flow from investing activities		**(490)**
Cash flows from financing activities		
Proceeds from issuance of shares	250	
Proceed from long-term borrowings	250	
Payment of lease liabilities	(90)	
Dividends paid	(400)	
Net cash flow from financing activities		**10**
Net cash flow		**(300)**
Cash and cash equivalents at beginning of period		**370**
Cash and cash equivalents at end of period		**70**

Source: Alver, 2005.

Table 4.10. Classification Option 2 (Interests and dividends received are classified as investing activities; interests and dividends paid are classified as financing activities)

Cash flows from operating activities	***EUR***	
Cash receipts from customers	30,150	
Cash paid to suppliers	(23,700)	
Cash based gross profit	**6,450**	
Cash paid for operating expenses	(5,500)	
Cash based operating profit	**950**	
Income taxes paid	(1,100)	
Net cash flow from operating activities (cash based net profit)		**(150)**
Cash flows from investing activities		
Acquisition of interest in Company X	(260)	
Purchase of equipment	(250)	
Proceeds from sale of equipment	20	
Interests received	200	
Interests paid	400	
Net cash flow from investing activities		**110**
Cash flows from financing activities		
Proceeds from issuance of shares	250	
Proceed from long-term borrowings	250	
Payment of lease liabilities	(90)	
Dividends paid	(400)	
Interests paid	(270)	
Net cash flow from financing activities		**(260)**
Net cash flow		**(300)**
Cash and cash equivalents at beginning of period		**370**
Cash and cash equivalents at end of period		**70**

Source: Alver, 2005.

Table 4.11. Classification Option 3 (Interests paid are classified as operating activities; interests and dividends received are classified as investing activities; dividends paid are classified as financing activities)

Cash flows from operating activities	***EUR***	
Cash receipts from customers	30,150	
Cash paid to suppliers	(23,700)	
Cash based gross profit	**6,450**	
Cash paid for operating expenses	(5,500)	
Cash based operating profit	**950**	
Interests paid	(270)	
Income taxes paid	(1,100)	
Net cash flow from operating activities (cash based net profit)		**(420)**
Cash flows from investing activities		
Acquisition of interest in Company X	(260)	
Purchase of equipment	(250)	
Proceeds from sale of equipment	20	
Interests received	200	
Interests paid	400	
Net cash flow from investing activities		**110**
Cash flows from financing activities		
Proceeds from issuance of shares	250	
Proceed from long-term borrowings	250	
Payment of lease liabilities	(90)	
Dividends paid	(400)	
Net cash flow from financing activities		**10**
Net cash flow		**(300)**
Cash and cash equivalents at beginning of period		**370**
Cash and cash equivalents at end of period		**70**

Source: Alver, 2005.

Table 4.12. Classification Option 4 (Interests paid and received and dividends paid and received are classified as operating activities)

Cash flows from operating activities	***EUR***	
Cash receipts from customers	30,150	
Cash paid to suppliers	(23,700)	
Cash based gross profit	**6,450**	
Cash paid for operating expenses	(5,500)	
Cash based operating profit	**950**	
Interests paid	(270)	
Interests received	200	
Dividends received	400	
Income taxes paid	(1,100)	
Cash based net profit	180	
Dividends paid	(400)	
Net cash flow from operating activities (cash based net profit)		**(220)**
Cash flows from investing activities		
Acquisition of interest in Company X	(260)	
Purchase of equipment	(250)	
Proceeds from sale of equipment	20	
Net cash flow from investing activities		**(490)**
Cash flows from financing activities		
Proceeds from issuance of shares	250	
Proceed from long-term borrowings	250	
Payment of lease liabilities	(90)	
Net cash flow from financing activities		**410**
Net cash flow		**(300)**
Cash and cash equivalents at beginning of period		**370**
Cash and cash equivalents at end of period		**70**

Source: Alver, 2005.

Table 4.13 Summary of classification effects on activities (in euros)

Option	Net cash flow from operating activities	Net cash flow from investing activities	Net cash flow from financing activities	Net cash flow
1	180	(490)	10	(300)
2	(150)	110	(260)	(300)
3	(420)	110	10	(300)
4	(220)	(490)	410	(300)

Source: Alver, 2005.

As can be seen from the illustration above, even a simple classification issue leads to significantly variable results for each activity, while cash-based amounts of gross-profit, operating profit and net profit remain invariable. The above examples show, that without a clear definition for activities and harmonization of classification, not only comparability but also interpretation of the cash flow statement is hindered (see Table 4.13). Cash flows from operations vary as much as positive 180 to negative 420; consequently, cash flows from investing activities vary from positive 110 to negative 490 and cash flows from financing activities from positive 410 to negative 260, while the actual cash-based amounts of gross profit, operating profit and net profit remain constant.

Research provides evidence that companies take advantage of the flexibility of classifying interests paid, interests received, and dividends received, especially financially distressed firms and firms with larger interest payments (Gordon et al., 2017, Baik et al., 2016, Lee, 2012, Pinto et al., 2017). A materially misstated cash flow statement, whether in terms of incorrect classification in the categories or numerical inaccuracy, can be misleading and could lead to incorrect results in the application of models (Steyn & Hamman, 2003). Research

points to the necessity to classify interests received and dividends received as an investing activity, because they represent a return on investment. However, interests received could be generated from other sources as well: for example, interests received on bank balances, interests received because of extended credit terms. In those instances, it is an operating activity, not investing. Charitou et al. (2017) note that the ongoing project of the IASB on financial statement presentation addresses concerns that the choices embedded in the existing disclosure requirements result in inconsistently presented information and those inconsistencies limit users' understanding of the relationship between a company's financial statements and financial results. Even though the notion of comparability applies in general to financial statements, the FASB has decided to require interest payments to be included in the operating section to better facilitate comparison between net income and net cash flows from operating activities. Comparing operating cash flows to net income allows the users to assess a company's ability to translate profitability into cash generation.

Recognition issues. Recent actions of the IASB with reference to the cash flow statement, though positive in a sense that there was a recognition of a problem, are still not sufficient. In 2012, the IASB discussed two issues about cash flow statement; both of these issues related to classification under IAS 7 and included: (1) classification of cash payments for deferred and contingent consideration arising from a business combination within the scope of IFRS 3 *Business Combinations* and (2) classification of cash flows for an operator in a service concession arrangement within the scope of IFRIC 12 *Service Concession Arrangements*. However, what is worth noting, no decision has been taken, so consequently no changes.

In March 2012, meeting the IASB proposed two principles for classification:

Principle 1 – Cash flows in IAS 7 should be classified in accordance with the nature of the activity to which they relate (i.e., most appropriate to the business of the entity), or

Principle 2 – Cash flows in IAS 7 should be classified consistently with the classification of the related or underlying item in the statement of financial position.

The staff suggested that to provide further guidance on how to implement the primary principle (Principle 1), the following elements could be added to help identify the nature of the cash flows being analysed:

1) the cause or reason for which the cash flow is received or paid;
2) the counterparty who receives or pays the cash flow;
3) whether cash flows result from transactions that enter into the determination of profit or loss, or;
4) the predominant source of cash flows.

The Board has discussed the staff's analysis of six examples (see Table 4.14), provided below, that illustrate the classification of cash flows, which was aimed at testing the principle (using the first principle as the primary guidance principle) for classification of the cash flows noted above and to determine how the existing guidance in IAS 7 could be clarified. The fact that there was significant disagreement on the classification and prevailing principle to be used clearly shows that there is a need for conceptual developments in this regard.

Table 4.14. The IASB staff analysis of six examples for transaction classification

Example	Nature of Transaction	Classification
Cash contributions to a long-term employee benefit fund	Cash outflows are part of the compensation for employment services and would be classified like any other cash payment on behalf of the employees.	Operating activities
Cash received as compensation for an insured loss for damaged PP&E (property, plant & equipment)	Cash inflows are received to cover for losses and damages of PP&E. This transaction represents 'in substance' a disposal of PP&E and would be classified as an investing activity. Insurance proceeds are not derived from the principal revenue-producing activities of the entity.	Investing activities
Cash payment to purchase of PP&E on deferred payment terms	Cash outflows are to acquire PP&E and made to a supplier. Consequently, they would be classified as an investing activity regardless of when cash flows will be paid.	Investing activities
Cash payment to meet a rehabilitation obligation	Cash outflows are for costs of rehabilitation, which are derived from the mine's normal operation activities. These activities are for the decommissioning or dismantlement of an asset. They therefore do not meet the definition of an investing and/or financing activity.	Operating activities
Cash received from a government grant	Cash inflows from a grant provide the entity with financing for the designated asset/activity. They are in substance financing cash inflows.	Financing activities
Cash payments in a reverse factoring agreement	The bank has provided credit to the entity to enable the entity's liabilities to be settled on the due date. The repayment of that amount to the bank is a financing cash outflow.	Financing activities

Source: www.ias.com.

A few Board members also expressed concern as to how the principle would be applied to non-cash transactions. The Board asked the staff to summarize the constituents' views from the previous project on financial statement presentation as well as any views regarding cash flows from the agenda consultation process and to consider ways to clarify the primary principle in IAS 7 as well as useful guidance to implement IAS 7 consistently, including how timing can affect the classification of cash flows and to revisit the definition of operating, financing, and investing activities. An issue relating to IAS 7, which states that only expenditures that result in a recognized asset in the statement of financial position are eligible for classification as investing activities, is also under investigation.

The standard setters themselves agree that the cash flow statement has been a long neglected one (FRC, 2017). Therefore, it is justified that a new perspective to the structure of the cash flow statement is required. The following section provides a new approach to format of the cash flow statement, which would address the main issues of controversy and provide better information content for the financial statement users in terms of projection of future cash flows.

4.6 Proposed reorientation

Academic research and comments from the users of the cash flow statement indicate, that the users are rearranging the information from the statement to make it useful for decision-making (Steyn and Hamman, 2003; Miller, 2006; Cassis, 2003). However, so far not much has been done to improve the situation by the standard setters. As financial statement users demand a statement that describes a company's cash flows (Ohlson & Aier, 2009) it is

important to analyse how it should be best structured, so that it could achieve its full potential. Standard setters have recognized that, overall, the concept of cash flows raises some unique issues, such as the definition of cash or distinction between operating flows and investing flows (Ohlson, et al., 2010).

The author of this thesis proposes to rearrange the format of the cash flow statement so that it is more consistent with the income statement and the balance sheet. It follows the framework of the entity and proprietary theory of financial reporting. The entity theory states that financial reporting is performed from the point of view of the company, which is separate from its owners. The proprietary perspective, on the other hand, states that financial reporting is done from the point of view of the company owners that is equity holders. Thus, the main difference between the entity and proprietary theory is how to treat debt and equity. The entity theory sees debt and equity holders as the same – as long-term financing providers who are paid for their contributions just like any other stakeholders (employees, suppliers, etc.). Consequently, the entity theory of accounting views both dividends and interests paid as deductions from income, and only income retained in the company is the true bottom line. The proprietary theory makes a distinction between debt and equity holders: debt holders are "outsiders", providers of capital, and similar to suppliers or employees; equity holders are "insiders", the true owners and beneficiaries of the firm. Thus, accounting is focused on reporting success of the operations from the owners' perspective. Consequently, dividends are only a distribution of income, where both distributed and retained earnings are part of the bottom-line. Current financial reporting supports mainly the proprietary perspective, the bottom line of the income statement being net profit, which represents the claim on residual earnings that goes to equity holders and comprises both dividends and retained earnings. Dichev (2017) also notes that interest expense appears as a negative amount in the income statement, while net income is the positive residual, which is consistent with the idea that interest expense is the cost paid to "outsiders" before arriving to the residual claim of equity "insiders". The US GAAP further supports the proprietary perspective, as it recognizes gains and losses on repurchase of the company's own debt but no gains or losses on re-purchase or re-issue of the company's equity (Dichev, 2017). The proprietary perspective dominates the presentation of the balance sheet, which is based on the equation ***Assets = Liabilities + Shareholders' Equity***, which can also be rearranged into ***Shareholders' Equity = Assets – Liabilities***, meaning that owners claim the value of assets minus the obligations against those assets. Equity claims are presented in a separate shareholders' equity section in the balance sheet, while debts are classified together with operating liabilities in the liability section. Finally, the separate Statement of Shareholders' Equity fully endorses the proprietary perspective in financial accounting.

Therefore, the current presentation of the cash flow statement is not fitting in the general framework of financial reporting, because it follows the entity theory approach: the effect of operating liabilities on cash flow appears in the operating section, while the effect of financing liabilities is classified into the financing section. It is quite a different approach from the combined presentation of liabilities in the balance sheet. Moreover, cash flow effects of both debt and equity providers are presented in the financing section, without even separate subcategories, which supports the entity perspective of viewing debt and equity as similar. Dichev (2017) further points out that dividend payments appear as a negative amount in the financing section, which is consistent with how such flows are treated by the company as a separate entity, but it is opposite to how those flows appear to equity holders. This discrepancy can be addressed by applying the proprietary perspective for the format of the cash flow statement – distinguishing cash flows from debt and equity financing. The original section of financing activities could be split into two separate subsections for cash flows to

debt and equity holders. Cash flows to debtholders would be negative, consistent with the theory that debt service is a cost to the company and equity holders. Cash flows to equity holders could appear as a new bottom line, where those cash flows are treated as a positive movement, consistent with the proprietary theory that these are cash benefits distributed to residual claimants. After such rearrangement, the cash flow statement is much more similar to the income statement, which fulfils the proprietary theory perspective. Moreover, such similarity in presentation would allow a better analysis and understanding of cash flow and accruals and the link between them. In a simplified form, cash accounting treats all non-owner cash inflows and outflows as revenues and expenses, and the result is cash income or cash loss.

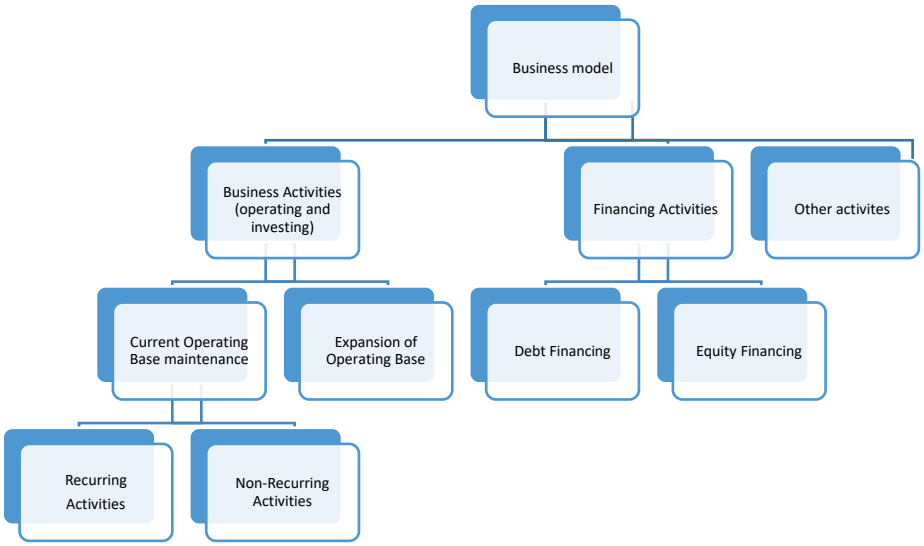

Figure 4.3. Proposed model for the cash flow statement
Source: compiled by the author.

The author of the thesis proposes the above conceptual model for the cash flow statement, based on the following premises and expected results.

Proprietary theory. Firstly, by taking the stand of the proprietary theory, the cash flow statement would be aligned with other financial reports: income statement, balance sheet, statement of owners' equity. Secondly, it solves the debate of interest and dividend classification. Interest has to be treated as the cost of financing for the company, thus classified under debt financing activities; while dividends paid would be deducted from the residual line.

The author of this thesis proposes that in the same way as with the accrual-based income statements, the cash statement should be defined from the shareholder perspective. Income from continuing operations is considered to be income available to shareholders, after claims by lenders in terms of interest expense are deducted. Dividends are not shown in the income statement. In a similar logical approach, cash flows from operations should report cash available to shareholders before interest claims of debtors are deducted. Dividends should not be included in determination in the cash flows from operations, as they are residual claims by shareholders. Consequently, the bottom line of the cash flow statement should be free cash available to shareholders for distribution or reinvestments.

Business model. The author of the thesis proposes that EFRAG definitions of business models could serve as a starting point for restructuring the cash flow statement. Economic information about the company's regular business activities is important when assessing management performance (accounting information for control purposes) and when making forecasts of future economic performance (accounting information for valuation purposes) (Edward, 1989; Penman, 2011; Baksaas & Stenheim, 2019). Leisering et al. (2012) state that the business model focus can be effectively used to present management's intent for the use, disposition, settlement of items, linking those intents to recognition, initial and subsequent measurement, and presentation, including classification and disclosure. According to them, business model accounting provides the most relevant information, because it determines how the value (cash flows) will be realized from an item. Standard setters have taken initial steps in using this approach by requiring disclosure of the business model in the annual report commentaries but have not extended it to the actual regulations for preparation of financial statements. The business model also influences cash flow forecast, as for example in agriculture cash flows depend on agrarian cycles, in pharmaceuticals and consumer health they depend on R&D, intangible assets, discount, etc. (Glaum et al., 2018). Dichev (2017) points out that the focus of a profit earning entity is that it invests cash in a business model and proposes the use of income-based approach. Therefore, it is important to the users to see presentation of ordinary business activities and their contribution to profit or loss, to working capital, and to other investments necessary for financing business activities, and cash flow contributions from these activities.

Business activity. Business activity has to be defined using the four business models proposed by EFRAG (2015). It will require some generalization, and for some companies some information might not be presented so clearly, but it would increase the comparability of the report significantly. In addition, the definition of business activity would allow for a broader definition of business activities, which would incorporate current operating and investing activities. An important issue here is that standard setters have to define this category clearly, in order to avoid current problems with operating activities, which were left as a default classification activity and provide major problems in the quality of statement information. Moreover, such expansion of the definition would make the cash flow statement more aligned with the income statement, as income and expenses on fixed assets are usually included in the calculation of the operating profit (i.e. depreciation, gains/losses on disposal, etc.).

Based on the definition of the business model, investments made by the company should be either to maintain the current operating base or to expand it. Thus, investing activity is perceived as a supporting function for business operations. Moreover, depreciation of fixed assets is reflected in the income statement as an operating expense and is part of operating activities. Farshadfar and Monem (2019) empirically show that both working capital and non-current operating accruals are relevant in explaining future cash flows, while the relevance of financing accruals is not significant. They further decompose working capital and non-current accruals into their asset and liability components and find that asset accruals have greater explanatory power for future cash flows and earnings than liability accruals.

The subdivision of business activities into ***current operating base*** and ***expanding operating base*** would allow the users to forecast future cash flows better, in the same way as introduction of ***recurring activities*** and ***non-recurring activities*** (fulfils the requirement of the FASB and the IASB definition of the purpose of the cash flow statement – assessment of a company's ability to generate cash).

Maintenance of the current operating base. For any company, cash provided by operations is a key measure of performance. Investors look for the earning power, which focuses on the company's ability to generate a sustainable and hopefully growing flow of

earnings, which will result in cash flows. The ability of a company to generate positive operating cash flows provides evidence that the company is able to provide growth of shareholder value. If the cash flow statement removed the classification of operating, investing and financing activities, and focused on presenting the generation and utilization of internally generated cash and need for external financing, the debate on classification of interests and dividends received and interests and dividends paid would become irrelevant (Steyn & Hamman, 2003). Currently, the cash flow distinction between capital (investing activities) and revenue (operating activities) cash flows is based merely on the nature of the asset acquired. Rutherford (1982) defines capital outflows as those without which future cash inflows would be reduced in more than one financial period, but argues that such distinction would be subjective; i.e. property, plant and equipment vs inventory purchases (Nurnberg, 1993). The author of this thesis states that if the users want to assess the future cash-generating ability of the company and its ability to maintain it, then it is necessary to report the expenditure required to maintain the current resource base separately from the expenditure required to expand the resource base, regardless whether it is capital or revenue expenditure. This cash used for maintaining the current resource base should be deducted from the cash generated internally after deducting mandatory cash payments. Even though it would still contain some level of subjectivity in measurement, the users would be able to get more information. Separation of maintenance and expansion flows would allow the users to differentiate between the existing cash generating ability and additional cash flows in making projections. Additionally, by comparing cash spent on the maintenance of the asset base of various companies, the user would be able to evaluate companies' replacement policies, which affect future cash generation. Operating cash flows are more likely to be sustainable than other sources of cash provided from investing or financing activities (Mulford & Comiskey, 2002). For example, under the current format, cash provided by investing activities from sale of operating assets would increase cash flows from investing activities, but it cannot be expected to continue. Moreover, it might have a negative effect on future operating cash flows, if such a sale results in reduction of the operating base.

Expansion of the operating base. Companies also make investments with an expectation to earn returns on those investments, thus if a company is generating positive cash flows, it shows that it has made investments which provided returns.

The proposed format allows separation of returns on business related investments (revenue continuation and idea of expansion) which are recurring and investments which are in reality cash management and not likely to be recurring (for example investment in marketable securities by a non-financial company). It is understood that such a subdivision would require managerial discretion, but the benefits from additional information gained would outweigh the benefits. The manipulation by management would be limited by the fact that if investments in the expansion of the operating base were manipulated, they would not result in additional cash flows already in the following reporting year. This approach also follows the current trend of presenting more disaggregated financial information for the users of financial reports.

It should be noted that inability to generate positive operating cash flows is not inherently unacceptable if the reason for that is clear. For example, start-up companies or fast-growing companies might have temporary difficulties in generating positive operating cash flows. This format allows users to see the reason for negative cash flows from operations more clearly: in the above case, it will be consumed by investment in expansion.

If a company is investing excess cash in, for example, marketable securities, it deviates from its main line of business and that should be clearly disclosed to financial statement users. The proposed model allows allocating such irregular activities in the section of ***other activities***, and the changes in those activities would be provide a signal to the users.

Already pointed out by Mulford and Comiskey (2002), the effects of capitalized expenditure on net income could be significant, and a lot of literature deals with identifying the effects of those transactions. However, it should be noted that those transactions affect operating cash flows as well. Cost capitalization increases the asset and earnings and the subsequent depreciation of the asset reduces earnings in the future periods. The net effect on earnings is the difference between the amount capitalized and the amount depreciated. In terms of cash flow statement, under the current format, capitalized costs are classified as investing activities. As the reason for capitalization is the expectation of future benefits, which follows the definition of fixed asset recognition, operating cash flows are not affected by capitalization transaction. Moreover, because depreciation is a non-cash expense, it does not reduce operating cash flows in the future periods either. Thus, unlike earnings, where capitalization increases them and the subsequent depreciation reduces them, capitalized costs never reduce operating cash flows. From the view of operating cash flows, capitalized costs never occur.

Two major investment costs with flexible treatment are research and development costs and cash expenses related to restructuring changes. Luo (2004) notes that expensing research and development mismatches costs and the related future benefits, as the purpose of R&D is future value generation. In addition, restructuring charges are typically investments made to streamline a company's operations for providing future profitability. Both of those actions typically involve substantial cash outflows from operating cash flows, and could skew the reported results downwards. Some high-growth firms may not generate positive operating cash flows in the current period because of heavy investment but could have excellent cash inflows when investments turn out to be successful.

Therefore, the ability of such investment-type cash outflows to indicate the probability of future cash flow is different from periodic operating cash flows, which typically do not bring future benefits.

The model proposed in this thesis solves this issue by joining operating and investing activities into a business model activity, which incorporates both costs expensed in the income statement, and costs capitalized via the balance sheet as both categories are used either to maintain the current operating base or to expand it. Another issue with capitalized cost is that there are major differences in how companies treat them, thus leading to the reduction in the comparability of reports; as some companies capitalize most certain expenses while others very little or none at all. Again, the model proposed would allow seeing this issue more clearly. As capitalized expenses (for example R&D and software development) are mostly used for maintaining the operational base or expansion, their disclosure would allow financial statement users to identify those expenses and compare across companies in the same industry. Any significant difference would warrant additional attention and explanation, for example whether companies treat those expenses differently or one simply does not have investments in R&D, which would increase the quality of information.

The author acknowledges that the possible problem could be too many arbitrary decisions for the division between maintenance and expansion by the management. However, additional information gained for forecasting future cash flows, via this disaggregation, would outweigh this problem.

Recurring vs non-recurring activities. Reported cash flows are generally considered less subjective to manipulation than reported earnings. However, holding the cash flow statement as a "beacon of truth can be imprudent" (Luo, 2004, p. 10). Due to different composition characteristics, the same amount of cash flows from operations may imply various future cash prospects, as cash flows sustain only if the underlying activity is likely to recur. As noted in previous sections, several components of operating cash flows may provide information about future cash flows differently; for example, non-recurring items, investment

type expenditures, managerial manipulation. Literature and standard setters focus a lot on the need to adjust net income for recurring and non-recurring items in order to have a sustainable measure of earnings (Mulford & Comiskey, 2002). A similar approach should be used in the cash flow statement, and cash flows from operations should clearly identify recurring and non-recurring cash flows. Most non-recurring cash flows are related to sales of assets and the effects are on investing and operating cash flows (via gains or losses on such a transaction), while those cash flows cannot be expected to continue in the future, thus have to be removed from projections. Restructuring changes, which include asset write-downs and provisions for severance compensation, are also examples of non-recurring cash flows, which might have little cash outflow at the inception. However, while asset write-downs might result in future cash inflows from the sale of the asset and would be reported in investing activities, changes in current accruals would affect operating cash flows for the current period.

The effects of those unusual or infrequent transactions contain less predictive ability for future cash flows compared to regular core activities (for example, cash flows from discontinued operations). If such activities are pronounced by reporting companies as non-recurring, they should be irrelevant in forecasting future cash flows. Gu and Chen (2004) find that analysts recognize that to some extent and decide to keep or remove some of the "non-recurring" items from their forecasts. Again, to obtain sustainable and forecastable operating cash flows, the users have to be able to identify those transactions, which could be done with the proposed model.

Financing activities. External debt financing, consistent with the proprietary theory. Depending on the business model and financing strategy of the company, this section could be subdivided in short-term debt financing and long-term debt financing.

Cash provided by issue of debt is not a recurring cash flow and carries with itself the expectation of a future cash outflow in terms of interest and principal repayment. Operating and financing activities are mutually exclusive. Operating activities reflect transactions that are connected to the generation of revenue in current, present and past periods. Financing activities, on the other hand, provide a link between borrowing and lending activities to expenditures related to operating activities (Ohlson et al., 2010).

The author proposes to take one step further and separate financing of operation-maintenance and operation-expanding investments.

Other activities. This is a default section, showing activities not related to core value creating operations of the company. Increases in such activities could serve as a warning sign for investors that the company is deviating from its primary business model or is manipulating performance indicators. Under the current regulation, cash flows from purchase and sale of trading securities are reported in the investing section of the cash flow statement in most cases. For example, debt and equity investments in securities classified as available for sale securities held until maturity would be reported in the investing section. Cash inflows from those investments, in form of interests or dividends, would be reported in the operating section. On the other hand, debt and equity investments in securities classified as trading securities would be reported in the operating section: both inflows from interests and dividends and cash flows from purchase and sale of investment itself. Because such a purchase can make significant amounts, especially relating to operating cash flows, they could potentially distort this measure. The proposed model solves this problem by requiring any transactions not related to the value created by a business model to be reported as "other activities". Only for financial institutions, such trading in securities is a primary operation. While for non-financial companies, these activities are essentially a simple cash management technique and does not occur regularly (invest excess cash not in the expansion of operations, but in securities and trade them. Moreover, such transactions allow a leeway

for the management to manipulate operating cash flows just by timing purchases or sales of trading securities. In addition, sales and purchases of trading securities could be perceived as non-recurring cash flows. As noted by Mulford and Comiskey (2002), such transactions do not have the same recurring quality as operating cash flows generated by providing goods or services.

Format. The direct format would allow for better alignment of the cash flow statement with other financial reports. However, from the practical point of view, as the standard requires a reconciliation of profit to cash flows in any case, it is evident that prepares would continue using and lobbying the indirect method. However, comparability could still be improved temporarily by clearly defining the starting point for the reconciliation – operating profit. Ohlson et al. (2010, pp. 479–480) point that "according to the current financial reporting standards, cash flow statements should embed the idea of the residual interest as the bottom line (proprietorship theory), operating versus financial activities (which embeds the idea of accrual accounting for operating income measurement versus accounting for cash flows to claimants) and the centrality of income measurement (so that the cash flow statement, like the balance sheet is presented in support of the income statement)". Therefore, the author of the thesis states that the cash flow statement should follow the format of the income statement. It would have a starting point of sales and would report the income statement on the cash basis, rather than accrual. Similar to the income statement, it could provide sub-totals showing operating earnings on the cash basis.

Making financial statements similar is consistent with the goals of the FASB and the IASB. The FASB (2016) exposure draft covering design and presentation of financial statements emphasizes that financial statements need to articulate with each other. IAS 1 (2018) states that the objective of the standard is to prescribe the basis for presentation of financial statements to ensure comparability both within the company's financial statements and those of other companies.

The new model for the cash flow statement could work also if the cash flow statement records "as-if" cash flows. This means that if an asset is purchased with debt, the asset is recorded as a cash investment and the debt issue as a financing cash flow. Similarly, acquisitions with shares are treated as an "as-if" issue of stock for cash, with cash applied to the acquisition. The author acknowledges that there is a conceptual problem with such treatment: as there is no actual transaction affecting the cash account (Penman, 2011). However, from the perspective of decision usefulness and full disclosure concept, such treatment would be needed. For example, a company is issuing bonds to finance a purchase of fixed assets. Under current treatment, it would be reflected in the notes or as an additional section of CFO as a non-cash transaction. However, for the users of financial statements, in order to make accurate future cash flow projections it is important to distinguish whether this investment was to maintain the current operating base or to expand it. The current regulation does not distinguish cash flows for investing in the business from cash flows from operating a business. The conceptual model proposed in this thesis does it by maintaining the distinction between mandatory cash outflows to sustain the operational base and discretionary cash outflows for expansion. It also allows to identify cash flows from current operations from those for investments that are expensed in the income statement, which is especially important in analysing and understanding operations and future prospects of research and development intensive companies (Penman, 2009, 2011).

The proposed format also clearly identifies cash going to different types of claimants, specifically to common shareholders, which is consistent with the proprietary theory.

4.7 Summary and conclusions

The model proposed by the author of this thesis addresses several classification issues present in the current regulation and provides cash flow information, which would be more consistent with the income statements, especially the operating section.

The fundamental difference between cash-basis and accrual-basis accounting arises because of the need for periodic financial statements, which need to match revenues and expenses. For accrual-based accounting, this raises subjective recognition issues, which are never present in the cash-basis one, as cash receipts and payments are simply recorded when incurred. In the long run, total profit must be equal under both systems, and if financial statements were prepared only at the end of a company's life, the choice of accounting method would be irrelevant. As it is not the case, to get more information about a company's performance, financial report users must get access to all financial statements. Literature shows that currently the users still experience problems in aligning the information in the income statement and in the cash flow statement. The proposed model for the cash flow statement could solve it.

Direct vs indirect. The author supports the direct format of presentation for business activities. The business activity section should be as detailed as the income statement. That is, every line in the income statement should be presented in the cash flow as well. It would enhance the comparability and understandability of the reports, as operating income would be corresponding to cash flow from business activities.

Classification: interests received. Because interest revenue is not included in operating income, cash collections of interest should not be reported in business activities. They should be reported under the section of other activities, as these are a result of investing (into non-operating assets) or cash management.

Classification: interests paid. Interest expense is not included in the calculation of operating income. The theoretical reason for it was that it would allow comparability of the performance of companies with different financing choices (mix of debt and equity). Therefore, for the same reason cash paid for interest should be excluded from business activities and classified in the debt financing section under financing activities.

Classification: purchase of fixed assets. In the income statement, depreciation expense is shown as an operating expense. Therefore, cash paid for purchases of fixed asset should be also reported under business activities. Although it is a major change from the current standard, such combination of operating and investing activities pertaining to value creation by the company's business model would make the income statement and the cash flow statement more consistent. As noted in the discussion of the previous section, it could be criticized that such an approach would allow even more leeway for management to manipulate business activity cash flows by timing of such spending. However, if comparable cash flow statements were provided, a trend analysis would allow the users to see whether the current year's cash flow is "typical" or "atypical". This follows Luo's (2004) findings for persistence of accounts receivable.

Classification: disposition of fixed assets. In the income statement, gains and losses on disposition of fixed assets are not included in the calculation of the operating profit. The theoretical logic behind it was that sale of operating assets is not part of a company's core operations, but is an activity which occurs infrequently and the results of which cannot be extrapolated into the future. In principle, those gains and losses arise simply because the company has recorded too much or too little depreciation compared to the fair value of the asset (Alver & Alver 2016a; Alver & Alver 2016b). Therefore, total proceeds from disposition of a fixed asset should be shown under business activities. To follow this consistently,

all assets relating to value creation by the company's business model (land, trademarks, buildings, etc.) and depreciated should be included in the section of business activities.

Special topic: non-cash acquisitions. This thesis raises the issue of alternative treatment of non-cash acquisitions. The model proposed by the author could work also if the cash flow statement recorded "as-if" cash flows. This means that if an asset is purchased with debt, the asset is recorded as a cash investment and the debt issue as a financing cash flow. Similarly, acquisitions with shares are treated as an "as-if" issue of stock for cash, with cash applied to the acquisition (Penman, 2011). The author acknowledges there is a conceptual problem with such treatment: as there is no actual transaction affecting the cash account. However, from the perspective of decision usefulness and the full disclosure concept, such treatment could be considered. For example, a company is issuing bonds to finance a purchase of fixed assets. Under current treatment, it would be reflected in the notes or as an additional section of CFO as a non-cash transaction. However, for the users of financial statements, in order to make accurate future cash flow projections it is important to distinguish whether this investment was to maintain the current operating base or to expand it. The current regulation does not distinguish cash flows for investing in the business from cash flows from operating a business. Therefore, this topic should be researched further for the potential effects on the accounting system.

Under the current standards the cash flow statement records only transactions that result in debiting or crediting the actual cash account. The author suggests continuing using this system but proposes that a more detailed disclosure of non-cash transactions has to be presented right after the cash flow statement, not in the notes. This would allow financial statement users to identify which non-cash activities would result in future cash inflows and which in future cash outflows, which in turn would increase the quality of information.

Therefore, the new model proposed by the author of this thesis addresses the main classification issues present in the current regulation. Its implementation would provide cash flow information, which would be more consistent with other financial statements and would improve information content for the users.

The primary focus of financial reporting, according to both the IASB and the FASB, has shifted to the presentation of financial information about the reporting entity that is useful for the users of financial statements in assessing the prospects of future cash inflows to the company and in assessing management's stewardship of the resources.

Conclusion

The past year has marked the 30th anniversary of the cash flow statement as a mandatory financial statement. Despite a considerable history, the statement continues to present reporting challenges, especially in the areas of format, definitions and classification of activities. According to the IASB, the main objective of financial reporting is the presentation of financial information about the reporting entity that is useful for the users of financial statements in assessing the prospects of future cash inflows to the company and in assessing management's stewardship of the resources. The IFRS CF emphasizes that investors need information about both, financial performance (income and expenses) and financial position (assets, liabilities and equity) (IASB, 2018). Information on past cash flows provided in the cash flow statement, if used together with information from other financial statements, should help the users to "assess the ability of the entity to generate cash and cash equivalents and the needs of the entity to utilize those cash flows" (IAS 7), while the secondary purpose is to provide information "about the entity's investing and financing activities during the period" (FASB 2014b, p. 84).

Academic research shows that the cash flow statement is useful in predicting company's future cash flows, and provides extended information over the balance sheet and the income statement. It is also especially useful in assessing a company's liquidity and solvency. Previous research also has shown that the information content of the cash flow statement, which is based on actual cash movements, is more relevant and reliable than the balance sheet or income statement information, which are accrual based. Thus, it is said to provide exactly the information financial statement users are looking for. On the other hand, a stream of research also shows that sometimes users are not able to appreciate the usefulness of the cash flow statement, and continue to consider the balance sheet and income statement as the primary statements. However, it is worth noting, that these were early studies when the concept of cash flows had just been introduced and later empirical research already finds support for an increasing usage of the cash flow statement by the users. There is still a gap in literature focusing on the internal usage of the cash flow statement by the management, as managing cash balances is an issue in all companies.

The disclosure of operating cash flows is one area in cash flow reporting that has been subject to fierce debates by standard setters, preparers and users of financial reports. It is central to this debate whether to allow or remove the choice of disclosing operating cash flows "indirectly" or "directly". As part of the continuing harmonization of the US standards with the IFRSs, both the FASB and the IASB have proposed to settle the debate finally by removing the option to disclose operating cash flows using the indirect method and mandate the direct method for all companies.

The issue of classification of activities has not gained so much attention from the standard setters, preparers and users of financial reports. The debate has mainly focused on the classification options for interest and dividend income and payment. ASC 230 only permits the classification of interests received and paid and dividends received under "operating" activities while classifying dividends paid as "financing" activities. IAS 7 permits interests and dividends to be classified under "operating", either "investing" or "financing" activities, so long as the chosen approach was applied consistently from one period to the next. However, a more detailed investigation of options available does show that comparability of reports, as one of the main goals of the IASB and the FASB, has not been achieved.

Both the IASB and the FASB claim that the assessment of the liquidity position of the company is facilitated by the preparation of cash flow statements, but they do not deal with the specific issue of current value accounting and the presentation of the cash flow statement, which has emerged in accounting literature.

The aim of the thesis is to identify problem areas in preparing and using cash flow statements and propose a new model for the cash flow statement, based on the problems identified. To achieve the aim of the thesis, the following **research questions** were raised and answered**:**

Is there a theoretical framework for the cash flow statement? The thesis examines philosophical foundations of financial reporting. At the core of the accounting discipline lies a multidimensional tension between decision making and control. The author has used proprietary and entity theories to explore the theoretical concepts of CF (2018) developed by the IASB and their influence on the preparation of financial statements in general and the definition of the users and user needs. An analysis of literature shows that the cash flow statement lacks the same theoretical framework as the income statement and the balance sheet.

Does the current IFRS CF address this statement sufficiently? A specific overview of the IFRS CF is provided, as it is designed to provide the basis for accounting standards. A further analysis is conducted to show that the framework does not cover the cash flow statement specifically, even though it specifies that one of the primary needs of the users is to "assess the prospects of future net cash inflows to the entity". The IASB framework aspires to meet information needs of financial report users, with a special reference to their decision-making needs, it has in mind that the existing and potential investors, lenders and other creditors are primary users. An important assumption is that reports are prepared on the assumption that the firm is a going concern. As decision making needs are the guiding objectives of financial reporting, the thesis proceeds with a discussion and analysis of specific financial report users and variances in their information needs. The concept of information usefulness has been dominant in the field and has resulted in a new definition of decision usefulness for capital providers, which means that information provided should help in assessing an entity's ability to generate cash inflows. Information should enable financial statement users to assess an entity's liquidity and solvency, compare performance and make predictions. The IFRS CF provides the basis for the importance of the cash flow statement, but does not address any topics of the statement directly.

What were the pressures for the establishment of the cash flow statement and did the standard setters incorporate them? This research question is addressed in a historical overview of the development of cash flow statements. The purpose of the overview was to determine the factors which gave rise to the institutional pressure for a new statement (cash flow statement) in order to analyse whether the current version of the statement fulfils those needs. The author provided a brief discussion of cash-based accounting, the working capital concept and the funds flow statement to show how their shortcomings have raised demand for a more comprehensive statement depicting the flow of cash in a company. The development of legislation governing the presentation of the cash flow statement and major issues faced and discussed by standard setters in the USA, the United Kingdom, Australia and eventually IFRSs/IASB is then provided. Disclosure of operating cash flows is one area in cash flow reporting that has been the subject of fierce debate by standard setters, preparers and users of financial reports. Central to this debate is whether to allow or remove the choice of disclosing operating cash flows "indirectly" or "directly", with Australia originally being the only country requiring only the "direct format", which was abolished after the adoption of the IFRSs. The issue of the classification of activities has not gained so much attention from the standard setters, preparers and users of financial reports. The debate has mainly focused on the classification options for interest and dividend income and payment.

What is the information content in the cash flow statement? To answer this research question, the task was to conceptualize the main users of financial statements and their information needs. The author of the thesis did this by providing an overview of legislation

concerning the cash flow statement and the official definition of users by the standard setters. Further, a literature review of empirical studies concerning the usage of the cash flow statement and the major issues faced was presented. The purpose of this section was to provide the current perception of the purpose of the cash flow statement by standard setters, academics and users. The author of the thesis also identified that cash flow statement is unique and different from the income statement and balance sheet, as it can be used internally as well. Managers can use it for financial planning and control in both short term and long term. However, there seems to be a gap in literature in this respect, as no research of this aspect of information usefulness has been found.

How does it fulfil user needs? What are the major issues hindering the quality of information content in the cash flow statement? An integrative literature review has been used to identify and review specific issues hindering the usage of the cash flow statement. The usefulness of financial information to the users is reflected by comparability, because financial information about a company is more useful if it can be compared to similar information from other companies or to similar information from the company over different periods. The cash flow statement is considered especially useful for intercompany comparisons or comparison over time, as the effects of different accounting treatments for the same transaction are supposed to be eliminated. Therefore, the focus was to use the literature review to identify the main factors affecting the comparability of cash flow statements. The issues identified were classified into five broad categories: (1) Format: direct vs indirect; (2) Definitions: activity, cash and cash equivalents, overdrafts; (3) Classification: activities, interests received and paid, dividends received and paid, income taxes; (4) Presentation options: acquisitions and dispositions, non-cash transactions (bad debt provisions, depreciation) capitalization effects, financing of receivables, re-classification of current assets, long-term debts, instalment sale and purchases (inventory, plant assets, rental assets); (5) Manipulation of the cash flow statement.

What are the effects of the problems discovered on the quality of the cash flow statement? (The main criteria being how they violate the qualitative characteristics of useful financial information as described by the IASB and the FASB). Qualitative characteristics of financial reporting are promoted by standard setters, so that representational faithfulness, comparability and transparency can add to more "traditionalist" or "positivist" approaches to accounting research. Based on the integrative literature review, the author of the thesis states that the prevailing weaknesses in the cash flow statement could be broadly classified as follows:

1) Lack of the definition of a business model and business activity.
2) Resulting classification problems (operating activities, investing activities, financing activities).
3) Presentation format (with the focus on presenting information useful for forecasting cash flows):
    a) Direct vs indirect;
    b) Starting point for reconciliation;
    c) Conceptual outcome of cash flows.

The empirical section of the thesis, using a case study of listed companies in the Baltic States, has investigated whether a single set of rules for a specific financial statement guarantees similar treatment of items. The empirical results show that it is not the case and point out that with the widespread adoption of the IFRSs there is a risk that investors are misled into believing that there is more uniformity in reporting, than there actually is in practice.

How could the format of the cash flow statement be changed to better suit the needs of financial statement users? The changes in the cash flow statement, proposed in this thesis, align it with other financial reports at the theoretical level: the income statement reports net profit, which is net periodic benefit from equity investment in accrual terms; the balance sheet reports shareholders' equity, which is claim on equity at a given point in time. Moreover, the proposed model serves better the needs of primary investors, who use cash flow data as the primary metric in building models for company valuation. Classification starts with identifying what the main business is, which in turn allows to determine the boundaries for operating, investing and financing activities. Business activities should encompass operating and investing activities. Such broader definition takes into consideration that operating of the business also involves investing in plant, property, equipment in order to continue to operate. The separation of investing activities into the operation-supporting and operation-expanding ones allows report users to better forecast future cash flows. The major problem with the current three-way classification of cash flows as operating, investing and financing is that it is arbitrary. As cash flows from operating, investing and financing activities are often interrelated, the current classification may impede rather than enhance the understating and analysis by the report users. Therefore, the author of the thesis states that a new conceptualisation of operating/investing activities and restructuring of the cash flow statement are required.

The thesis is divided into two major parts:

1) **Descriptive part.** The traditional perspective on the function of scientific research proposes description, explanation and prediction of a phenomenon (Denscombe, 2010; Bryman, 2016). The purpose of this part of the thesis was to develop a proper understanding of the current status of the cash flow statement. It was done by providing a historical overview of the introduction and development of the statement, academic research on the usage of the statement and problem areas.
2) **Prescriptive part.** Much of accounting research is prescriptive, the "what ought to be done' nature" (Jensen, 1976) and is used for developing a good practice (Boehm, 1980, Denscombe, 2010, Bryman, 2016). The purpose of this part of the thesis was to develop a new model for the cash flow statement, based on the problems identified in Part One.

Making financial statements similar is consistent with the FASB and the IASB goals. The FASB exposure draft covering design and presentation of financial statements emphasizes that financial statements need to articulate with each other. IAS 1 (2018) states that the objective of the standard is to prescribe the basis for presentation of financial statements to ensure comparability both within the company's financial statements and those of other companies.

The contribution of the present doctoral thesis is that using a synthesis of problems identified in cash flow statements and the analysis for their possible effects on the users of financial reports, the author proposes the changes in the format of the cash flow statement in order to improve its usability. The proposed model for the cash flow statement addresses the prevailing problem areas in the preparation of the cash flow statement and provides the following results:

First, the proposed model would provide cohesion among financial statements – the balance sheet, income statement, cash flow statement and statement of shareholders' equity. It would better present information about the sources of earnings, cash flows, change in sources of financing and value generated by the company.

Second, the new model clearly separates the business activities of the company from the activities that finance the operations. As those activities are the primary value creators for the company, it enhances information usefulness of the statement and better follows the

finance theory that financing activities typically do not add value. Furthermore, the new model allows financial statement users to better forecast future cash flows, as it disaggregates cash flows from and to regular business activities and cash flows for business expansion investments. The proposal considers Barker's (2010b) proposal that accounting standards should require a separate reporting of obligations associated with "flows arising from the provision of finance to an entity ("financing") as distinct from all other activities of the entity ("operating"). Financing activities should be reported separately because conceptually they represent value distribution rather than value generation. However, Barker (2010b) notes that while investors find the distinction between financing activities and other activities useful, neither the "academic theory nor accounting standards offer a clear definition" of it nor a "consistent articulation of its conceptual foundations or practical application". This has been done in the thesis and in the proposed model.

Third, the new model allows to disaggregate the cash flow statement into more details, should report prepares consider in useful. It allows shifting the approach of accounting from a mere summarization and reporting of information to the approach of conveying information about value creation in the company. It could be done because:

a) The new format clearly separates regular business activities (both cash generated from and cash used to support them) and investments in business expansion, which improves forecasting of future cash flows. For example, companies usually have discretion in determining the level of spending on advertising, maintenance, employee training, research and development. By reducing such spending, or simply deferring it the operating cash flows would increase but such reductions might have adverse effects on the future operations, thus an increase in operating cash flows would not be sustainable.
b) The new format clearly separates core and non-core activities. Core and non-core cash flows have not been clearly defined by the academics or accounting profession. Cheng and Hollie (2008) point out that "should core and non-core cash flows be determined by their functional properties (i.e. parallel to the income statement, that is a report of core earnings), or should they be determined based on their persistence levels (i.e. components that persist more are classified as core cash flows and those that do not are classified as non-core cash flows)". In their study they have defined *core cash flows* as cash flows related to sales, cost of goods sold, and operating expenses and *non-core cash flows* as cash flows related to interests, taxes, and other expenses, and conclude that such disaggregation of cash flow components significantly increases the predictive ability of the cash flow prediction model.
c) The new format also separates recurring activities from non-recurring, improving forecasting of future cash flows. As Nurnberg (2006) notes, the objective of the cash flow statement is to report cash inflows and outflows of a company for a period. As such, the cash flow statement is a historical report of cash flows. However, for analytical purposes, the users need to know which cash flows are anticipated to recur in the future and which ones are not.
d) The new format clearly separates net claims for the shareholders, as according to the proprietary theory they are the ultimate owners of the company.

Fourth, the criteria for decision usefulness for the primary users, who are defined as investors, would be satisfied, as the format of the cash flow statement would clearly indicate the value available to shareholders.

Fifth, the application of the proprietary theory (consistent with the balance sheet and the income statement) solve the issue of interest and dividend classification.

To sum up, the results of the integrative literature review provide evidence that a new approach to cash flow statement is required, if the statement is to be consistent with other

financial statements on the theoretical level and consistent with the IASB and the FASB goals of improving the quality of financial reports. It has been accepted even by standard setters that it has been a long neglected statement from the standard setting point of view, despite the fact that the information content in the statement is paramount for assessing liquidity, working capital management, and the quality of earnings of the reporting companies. This thesis provides a subtle hint to standard setters that the suggested changes could improve the relevance of the cash flow statement and make it more aligned with today's realities.

The present thesis also contributes to the IFRSs literature, which has predominantly focused on the effects of accounting measurement choices and the resulting comparability. The empirical part has extended this literature by focusing on the choices of classification and their impact on the comparability of the cash flow statement. Thus, it should be of importance to investors, practitioners, academics and standard setters as it shows that the primary goal of the adoption of the IFRSs to enhance the comparability of financial statements, improve corporate disclosure and quality of financial reporting has not yet been achieved.

Limitations of the study. The limited data set used in the empirical section, namely the Baltic States, could be expanded in future research to include more countries. However, the results of the empirical study show that harmonization has been achieved only for some issues under investigation, like the format of the cash flow statement, dividends paid and dividends received while the classification of interests paid and interests received has not been harmonized yet. Thus, users of financial reports should not assume full comparability of cash flow statements for Estonian, Latvian and Lithuanian firms, despite a single stock exchange, the cultural and economic similarities of the countries. Even though the sample is geographically limited, the purpose of the author was to provide a case study to investigate the persistence of classification problems.

The thesis raises the need for new definitions of activities for the cash flow statement and terminology, but due to the specific aims and scope of the work does not address it in detail.

Recommendations for future research. There are various potential areas for future research regarding the information content and improvement of information quality in the cash flow statement.

First, future research can undertake a much more detailed approach to the development of terminology. This research has shown the problem areas in terminology, when the same terms are used differently or definitions are free for interpretation. A set of definitions to be used could improve the quality of information content and comparability of reports.

Second, future research could be more specific in nature, and focus on a single problem in detail. For example, investigate the effects on non-cash transactions on the company's cash flow statement and provide solutions for improvement in representation of such transactions.

Third, it is a common belief that cash flow information is superior to accrual information in evaluating a company's liquidity and solvency. It is acknowledged that cash flow information is more related to recent operations and liquidity, while earnings are more related to long-term profitability. Cash flow accounting, as implied by its name, focuses on liquidity and solvency, rather than income measurement. As solvency variables are important for distressed companies, and liquidity variables for start-ups, high-grown companies and companies with low debt ratings, possible future research could investigate whether cash flows or accrual measures serve as better predictors of future performance and whether the cash flow statement provides enough information for such an analysis and forecasts.

Fourth, a researcher could also start investigating how the cash flow statement should report transactions in digital currencies, like Bitcoins, which do not meet the definition of cash by the IFRSs but are becoming more and more popular in the digital age.

The results of this thesis have **implications** for regulators who are now reopening discussions on possible improvements in the cash flow statement. It also contributes to the IFRSs literature, which has predominantly focused on the effects of accounting measurement choices and the resulting comparability, by showing that comparability issues are present and must be addressed in the cash flow statement as well.

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Abstract
Model for Cash Flow Statement: History, Analysis and Further Development

The past year has marked the 30th anniversary of the cash flow statement as a mandatory financial statement. However, despite a considerable history, the statement continues to present reporting challenges, especially in the areas of format, definition of activities and classification.

This thesis investigates the historical development of the cash flow statement and identifies the main reporting challenges still prevailing. The main purpose of financial statements, as defined by both the FASB and the IASB is to provide the users with comparable, verifiable, timely and understandable information for projecting future cash flows of a company. This objective places the cash flow statement in a prime position over other financial statements, as past cash flows predict future cash flows incrementally better than profit, also cash flows provide better information about a company's liquidity and solvency, and it is less subject to manipulation by preparers compared to accrual-based financial statements. Therefore, compared with other financial reports, the cash flow statement should better help the users to assess the value of the company. However, this study shows that there are problem areas in the preparation of the cash flow statement, which diminish its usefulness for the users.

The aim of this thesis was first to identify problem areas in the preparation of the cash flow statement and their effects on the quality of published cash flow statements, as well as how it could affect understanding information by the report users. Second, to provide a new conceptual approach to the cash flow statement, which would overcome the problems identified in the literature review and empirical study. To achieve the aim of the thesis, a historical overview of financial reporting in general and of the cash flow statement in particular was carried out with the purpose of identifying the theoretical framework for cash flow statement. It has also allowed to identify the main areas of inconsistencies in the preparation of the cash flow statement, and how they influence the main objective of the financial statements for providing comparable, verifiable, timely, and understandable information for the users. The users of financial reports were defined according to the conceptual framework of financial reporting as existing and potential investors, lenders, or other creditors who must rely on financial reports for much of the financial information they need.

Based on the integrative literature review, the author of the thesis states that the prevailing weaknesses in the cash flow statement could be broadly classified as follows:

1) Lack of the definition of a business model and business activity.
2) Resulting classification problems (operating activities, investing activities, financing activities).
3) Presentation format (with the focus on presenting information useful for forecasting cash flows):
    a) Direct vs indirect.
    b) Starting point.
    c) Conceptual outcome of cash flows.

The contribution of this doctoral thesis is that using a synthesis of identified problems and the analysis for their possible effects on the users of financial reports, the author proposes to change the format of the cash flow statement based on the developed model, in order to improve its usability.

First, the proposed new design would provide cohesion among financial statements: the balance sheet, income statement, cash flow statement and statement of shareholders' equity and link them at the theoretical level, as all statements would be prepared under the view of proprietary theory. It would better present information about the sources of earnings, cash flows, change in sources of financing and value generated by the company. Second, the proposed model allows clearly to separate the business activities of the company from the activities that finance the operations. As those activities are the primary value creators for the company, it enhances information usefulness of the statement and better follows the finance theory that financing activities typically do not add value. Furthermore, the new format clearly separates regular business activities (both cash generated from and cash used to support them) and investments in business expansion, which improves forecasting of future cash flows. The model allows to separate core and non-core activities, by introducing the grouping of "business activity" and "other activity". Core and non-core cash flows have not been clearly defined by the academics or accounting profession. The proposed format also separates recurring activities from non-recurring, further improving forecasting of future cash flows. Therefore, the criteria for decision usefulness for the primary users, that is investors, would be better satisfied. Thirdly, the application of the proprietary theory (consistent with the balance sheet and income statement) solves the major issue of interest and dividend classification among activities of the cash flow statement.

The author of the thesis has also provided justification for the need for the development of new terminology, more specific definitions of concepts for the cash flow statement, and a need for an unanimous starting point for the statement (net vs operating profit) to improve the comparability and understandability of reports. Some accounting theorists call for re-orienting accounting researchers towards addressing fundamental accounting questions from passively following accounting standard setters; this thesis addresses a fundamental conceptualization of the cash flow statement, its purpose and usage. The new conceptual model for the cash flow statement provides a starting point for thinking about the various influences and causal relationships that shape it. Overall, the conceptual model provided in this thesis could be used as an organizing framework, a way of understanding and thinking about various influences, a way of identifying additional factors to control for, and a way to identify new, interesting, and unexplored research topics.

It has been accepted even by standard setters that the cash flow statement has been a long neglected statement from the standard setting point of view, despite the fact that information content in the statement is paramount for assessing liquidity, working capital management, and quality of earnings of the reporting companies. Therefore, by combining the historical and contemporary perspectives on cash flow accounting, the thesis fills this gap and provides subtle hints to standard setters that the suggested changes could improve the relevance of the cash flow statement and make it more aligned with today's realities.

Further research could extend this study by focusing on conceptualization of the new definitions for cash flow statement categories, empirical testing whether the new model provides better information for cash flow forecasts, more in-depth study of specific issues in the cash flow statement, like reporting of digital currencies (for example Bitcoins) or restricted cash.

Lühikokkuvõte
Rahakäibe aruande kontseptuaalne mudel: ajalugu, analüüs ja edasine areng

Eelmisel aastal täitus 30 aastat rahakäibe aruande muutumisest kohustuslikuks finantsaruandeks. Vaatamata märkimisväärsele ajaloole, tekitab aruanne endiselt probleeme, eriti seoses aruandevormi, tegevuste defineerimise ja klassifitseerimisega.

Doktoritöös käsitletakse rahakäibe aruande tekkimist ja arengut ning tuuakse välja aruandega jätkuvalt seonduvad peamised probleemid. USA Finantsarvestuse Standardite Nõukogu (FASB) ja Rahvusvaheline Raamatupidamisstandardite Nõukogu (IASB) on finantsaruannete peamise eesmärgina määratlenud kasutajatele võrreldava, kontrollitava, õigeaegse ja arusaadava teabe esitamise ettevõtte tulevase rahakäibe prognoosimiseks. See eesmärk seab rahakäibe aruande muude finantsaruannete suhtes erilisele kohale, sest möödaniku rahakäive võimaldab tulevast rahakäivet paremini prognoosida kui kasum, samuti kajastab rahakäive paremini ettevõtte likviidsust ja maksevõimet ning on vähem manipuleeritav võrreldes tekkepõhiste finantsaruannete näitarvudega. Seetõttu peaks rahakäibe aruanne muude finantsaruannetega võrreldes aitama kasutajatel paremini ettevõtte väärtust hinnata. Uuringu käigus selgus, et rahakäibe aruande koostamisel esineb siiski probleeme, mis vähendavad selle aruande kasulikkust kasutajatele.

Doktoritöö eesmärk on esiteks, määratleda rahakäibe aruande koostamise probleemkohad ja nende mõju rahakäibe aruannete kvaliteedile ning tuvastada, kuidas see võib mõjutada aruannete kasutajate arusaamist teabest. Teiseks, luua kontseptuaalselt uus rahakäibe aruande mudel, mis aitaks lahendada erialakirjanduses ja empiirilise uurimuse käigus tuvastatud probleemid. Doktoritöö eesmärkide saavutamiseks on antud ajalooline ülevaade finantsaruandlusest, kusjuures põhjalikumalt on keskendutud rahakäibe aruandele, sooviga selgitada välja rahakäibe aruande teoreetiline raamistik. Selline lähenemine võimaldas tuvastada ka rahakäibe aruande koostamisel esinevad põhilised vastuolud ja kuidas need mõjutavad finantsaruannete peamise eesmärgi – pakkuda kasutajatele võrreldavat, kontrollitavat, õigeaegset ja arusaadavat teavet – saavutamist. Finantsaruannete kasutajatena on käsitletud vastavalt finantsaruandluse kontseptuaalse raamistikuga olemasolevaid ja potentsiaalseid investoreid, laenuandjaid või muid võlausaldajaid, kes saavad suure osa vajalikust finantsteabest finantsaruannetest.

Tuginedes kirjanduse terviklikule ülevaatele, nendib doktoritöö autor, et rahakäibe aruande peamised puudused on järgmised:

1) Äritegevuse mõiste (definitsiooni) puudumine;
2) Eelmisest puudusest tulenevad klassifitseerimisprobleemid (põhitegevus, investeerimistegevus, finantseerimistegevus);
3) Aruandevorm:
    a) Otse- või kaudmeetodi kasutamine;
    b) Aruande alguse (alguskoha) määratlemine;
    c) Rahakäibe kontseptuaalne väljund.

Doktoritöö panus väljendub selles, et tuginedes süsteemse analüüsi käigus tuvastatud probleemidele ja nende võimalikule mõjule aruande kasutajatele, koostas doktoritöö autor kontseptuaalse mudeli, mis võimaldab rahakäibe aruande informatiivsust parendada.

Esiteks, väljatöötatud mudel tagab finantsaruannete (bilansi, kasumiaruande, rahakäibearuande ja omakapitali muutuste aruande) tervikliku lähenemise ja rõhutab seost omanikuteooria keskse lähenemisega. See võimaldab esitada paremini infot tuluallikate, rahakäibe, finantseerimisallikate muutuse ja ettevõtte loodud väärtuse kohta. Teiseks, mudel võimaldab selgelt eristada ettevõtte äritegevust finantseerimistegevusest. Kuna äritegevus

on peamine väärtust loov valdkond, siis selline lähenemine suurendab aruandeinfo kasulikkust ja järgib paremini rahandusteooriat, mille kohaselt finantseerimistegevus tavaliselt ei ole väärtust lisav valdkond. Lisaks eristatakse uues aruandeformaadis selgelt tavapärast äritegevust (nii raha teenivat kui ka seda kasutavat äritegevust) ja ettevõtte laiendamisega seotud investeeringuid, mis võimaldab parendada rahakäibe prognoosimist. Mudel võimaldab eristada tuumik- ja mittetuumiktegevust, kasutades rühmitust „Äritegevus" ja „Muu tegevus". Teadlased ja raamatupidamispraktikud pole seni selgelt defineerinud tuumik- ja mittetuumiktegevust. Doktoritöös pakutud aruandeformaat eristab ka korduvad toimingud ühekordsetest, parendades veelgi rahakäibe prognoosimist. Seega on aruande peamiste kasutajate, st investorite, otsustuskasulikkuse kriteeriumid rahakäibe aruande uue mudeli puhul paremini tagatud. Kolmandaks, omanikuteooria rakendamine (koos bilansi ja kasumiaruandega), võimaldab lahendada intresside ja dividendide klassifitseerimisprobleemid rahakäibe aruandes.

Tuginedes doktoritöös tehtud analüüsi tulemustele, on autor põhjendanud terminoloogia uuendamise, rahakäibe aruande kontseptsioonide spetsiifilisema esituse ja lähtekoha (kas puhaskasum või ärikasum) kindlaksmääramise vajadust. Mõned raamatupidamisteoreetikud on kutsunud teadlasi üles standardite koostajate passiivselt järgimiselt ümber lülituma raamatupidamise kontseptuaalsete teemade käsitlemisele. Sellest lähtub ka käesolev doktoritöö, keskendudes rahakäibe aruande kontseptuaalsetele alustele, aruande eesmärgile ja kasutamisele. Doktoritöö autori koostatud rahakäibe aruande kontseptuaalne mudel on lähtekoht aruteluks aruannet kujundavate mõjurite ja põhjuslike seoste üle. Doktoritöös toodud kontseptuaalset mudelit saab kasutada korraldusraamistikuna, mitmesuguste mõjurite mõistmiseks ja uute mõjurite tuvastamiseks, samuti uute, huvitavate ja seni käsitlemata uurimisteemade määratlemiseks.

Isegi standardi koostajad on nõustunud, et rahakäibe aruandele pole kaua aega tähelepanu pööratud, vaatamata sellele, et aruanne on äärmiselt oluline ettevõtete likviidsuse, käibekapitali juhtimise ja tulude kvaliteedi hindamisel. Seetõttu, ühendades ajaloolise tausta nüüdisaegsete võimalustega rahakäibe määratlemisel, täidab käesolev doktoritöö selle lünga ja annab soovitusi, kuidas suurendada rahakäibe olulisust ja muuta selle sisu rohkem vastavaks nüüdisaja nõuetega.

Edasised uuringud võiksid keskenduda rahakäibe aruande kategooriate uute määratluste kontseptualiseerimisele; empiirilisele testimisele, et selgitada välja, kas uus mudel pakub rahakäibe prognoosimiseks paremat teavet; rahakäibe aruande spetsiifiliste probleemide põhjalikumale uurimisele, nagu näiteks digivaluutade ehk e-raha (nt Bitcoin) või piiratud rahakasutuse kajastamine.

Appendix 1. Business Model Classification

Business Model	Implications
Price Change	This includes different business models, based on different types of capital appreciation. It includes trading activities in which assets (and sometimes liabilities) are bought and sold on the same market in order to benefit from gains resulting from short-term changes in value. Commodity dealers, investment entities and traders often use this business model. It also includes 'capital appreciation' activities such as those performed by investment entities. Investments are also bought and sold on the same market, and held for the period deemed necessary to optimise total return. Dealings with derivatives would also fall into this category unless the derivative is used for hedging. For price change businesses, gains in value in the period provide the most relevant measurement of financial performance and should therefore be reported in profit or loss. The same measurement basis is relevant also for the entity's financial position.
Transformation	These are 'value-added' businesses, where a company obtains and uses economic resources from suppliers and/or employees and, usually after some kind of process, produces goods and services to customers from which revenue is obtained. Inputs may be transformed, combined, or simply transferred from one market to another market. This group of business models includes amongst others the business models of retailers, manufacturing companies, service providers and retail banks. Financial performance reporting of those activities includes the measurement of some margin between revenue generated from sales to customers and the cost of production of the goods or services. Therefore, measurement at cost of inputs used to provide the outputs is the relevant measurement basis from a financial performance reporting perspective. Sales to customers are critical events to the cash generating activities and require consumption of other resources. Markets in which the outputs are sold are often not liquid, and more often than not significant uncertainty exists about demand, the effects of competition and innovation. For this reason, income following from a transformation business model should not be reported in profit or loss before a performance obligation is satisfied. The question could arise whether outputs, such as finished goods, should be measured on a current value basis in the statement of financial position. It would be a standard level decision to assess whether this would provide the most useful information. The assessment would be based on the uncertainty mentioned above and the selling effort needed.

Appendix 1. Continued

Long-term investment	This group includes business models where assets are purchased in order to generate a stream of revenue from period to period, while the ultimate cash inflow from the asset is often through sale in the market in which assets were originally bought and generally in a similar 'condition' as when it was bought. An entity can hold several investment assets and sell some of these from time to time. The asset may be maintained or not during the periods in which it generates streams of revenue. Cash flow generation is made of regular streams of revenue (e.g. in the form of dividends, or income from letting others use the asset) and of the sale of assets. Those sales are critical events as disinvestment decisions are significant from a stewardship perspective. In those businesses the choice of investments/disinvestments is a reflection of the investment strategy. The business models used by, for example, 'long-term investors' such as banks and entities that hold and manage investment properties would generally belong to this group of business models. In many cases there is no 'added-value' in these businesses to the assets themselves, the expertise is in the development and the implementation of an investment strategy, including the maintenance of the assets in good operating conditions. Changes in value of the assets from period to period are not relevant to periodic financial performance reporting, as the capital appreciation is secondary to the business model, the central feature is the stream of income derived from the assets. Measurement at cost (less impairment losses) would therefore be relevant from a profit or loss perspective. From the entity's financial position perspective, however, the asset's current value provides relevant information as the ultimate cash inflow is through sale, provided that the asset is in the condition in which it would be sold and there are sufficient observable market prices for similar transactions to determine the current value reliably. When these conditions are met, the changes in the value of the investment assets would be reported in OCI. OCI would thus reflect the change in the entity's exposure to market price risk. Accumulated OCI would represent capital appreciation gains accumulated since the acquisition of the investment asset. This amount would be reported separately in profit or loss when the investment asset is sold.

Appendix 1. Continued

Liability driven	In this business model companies accept long-term obligations and may invest in assets to meet these (i.e. insurance companies). In order to meet their liabilities when due, these businesses may invest in assets in a business model very similar to the long-term investment business model described above, in which case the approach described above applies. However, where business decisions are based on active asset-liability management, meaningful financial performance reporting requires that measurement decisions on the liability side and asset side are made on a consistent basis, so as to best reflect in profit or loss the economic offsets or mismatches. This is consistent with the request in the ASBJ's (2015) paper that "where a liability is managed in combination with an asset or a group of assets, the said measurement basis should be updated at a period-end so that the effect of price changes is recognised in profit or loss, when a liability corresponds to funding of the asset or the group of assets that is held as part of an entity's business activity in which it aims to gain net proceeds from the price changes". A standard-setting process that sets the measurement of assets and deals with liability measurement independently might fail to adequately provide relevant information that reflects the nature of the entity's business model.

Source: EFRAG, 2015.

Publications

ETIS 1.2

Kiaupaite-Grušniene, V., & Alver, L. (2019). Comparability of statements of cash flows: evidence from Baltic countries. *Accounting and Management Information Systems*, 18(3), 307−329.

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Curriculum vitae

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Education

2011–2019	Tallinn University of Technology – PhD studies
1997–1999	Concordia International University Estonia – MBA (Magna Cum Laude)
1993–1997	Concordia International University Estonia – BA (Magna Cum Laude)
1982–1993	Ignalina Secondary School – Secondary education (Gold medal)

Language competence

Lithuanian	Mother tongue
English	Fluent
Russian	Fluent
Estonian	Average
German	Basic skills

Professional employment

2009–	Taltech, Department of Accounting, Department of Business Administration – Lecturer
2008–2009	Tallinn University of Technology, International University Audentes – Lecturer
2003–2008	Audentes University – Lecturer
1999–2003	Concordia International University Estonia – Lecturer
1999–	Baltic Pulp and Paper – Member of the Board
1997–2000	Horizon Pulp and Paper – Financial Analyst

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1993–1997	Concordia International University Estonia – BA (Magna Cum Laude)
1982–1993	Ignalina Keskkool – keskharidus (kuldmedal)

Keelteoskus

leedu keel	emakeel
inglise keel	kõrgtase
vene keel	kõrgtase
eesti keel	kesktase
saksa keel	baastase

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2009–	Tallinna Tehnikaülikooli majandusarvestuse instituut, ärikorralduse instituut – lektor
2008–2009	Tallinn Tehnikaülikool, International University Audentes – lektor
2003–2008	Audentes University – lektor
1999–2003	Concordia International University Estonia – lektor
1999–	Baltic Pulp and Paper – juhatuse liige
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