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Presenting and Disclosing Cash Flows Evidence from Portuguese Listed Companies

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Abstract

Presentation and disclosure of cash flows is reaching increasingly importance, stimulating discussions between standard-setters, users, preparers and auditors. Bearing this in mind, this study aims at analyzing what and how Portuguese listed companies reported in the Statement of Cash Flows and related notes in annual reporting. The study describes, on one hand, if and how those companies comply with IAS 7 for presentation and disclosure of cash flows and, on the other hand, the impact of companies' disclosure choices. Results provide an overview of cash flows reporting, evidencing compliance, consistency and significant impact of accounting choices, complementing existent Portuguese Literature.

Key words: Cash flow, Presentation**,** Disclosure, IAS 7, Portuguese listed companies.

1. Introduction

Entities listed in stock exchanges located in the European Union (EU) should prepare financial statements in compliance with International Financial Reporting Standards /International Accounting Standards (IFRS /IAS). They are required to present, as part of the set of financial information available to financial statement users[1], the Statement of Cash Flows, which is administrated by IAS 7[2]. Recent amendments in international and countries' standards[3] are drawing increasingly attention to cash flows presentation and disclosure. The Statement of cash flows and cash flow analysis represent reliable and relevant information to financial statement users, as it is more objective than the income statement and less susceptible to manipulation.

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[1] According to IAS 1 entities listed in EU stock exchanges are required to prepare and present a set of financial information which includes the balance sheet, the income statement, the statement of changes in equity, the statement of cash flows and the notes.

[2] IAS 7 was issued in December, 1992 by IASC (International Accounting Standards Committee), now IASB (International Accounting Standards Board), adopted for financial statements covering periods beginning on or after 1 January 1994.

3 In 2014, the IASB proposed amendments to IAS 7 to become effective for reporting periods beginning on or after 1 January 2017, in order to improve information provided to financial statement users about entity's financing activities and about the liquidity of an entity and cash restrictions. On April, 2015, the FASB Board decided to clarify certain principles within FASB Statement No. 95 (the US Standard for Cash Flows) in order to reduce diversity on the classification of cash receipts and cash payments. Additionally, in 2015, approved by the Portuguese Accounting Standardization Board (CNC, *Comissão de Normalização Contabilístíca*), the Portuguese standard for cash flow reporting - *NCRF 2 Statement of Cash Flows* - was amended, turning it similar with IAS 7.

The Statement of cash flow is all about cash and liquidity which is particularly important when evaluating companies' going concern.

This work project aims at analyzing what and how Portuguese listed companies present in the Statement of Cash Flows and disclose the related notes in annual reporting. The study describes, on the one hand, if and how Portuguese listed companies comply with the requirements set by IAS 7 for presentation and disclosure of cash flows and, on the other hand, the numerical impact of companies' reporting choices. Following this introductory section, Section 2 sets the theoretical background, and international and country specific regulatory frameworks of cash flows' reporting. Section 3 reviews the literature related to reporting and analyzing cash flows. Section 4 presents the research questions designed, methodology, sample and data. Section 5 discusses the results and Section 6 concludes, adding suggestions for future research.

2. Theoretical Background and Regulatory Framework

Cash is what ensures companies will be able to maintain its responsibilities so as to develop business (e.g. paying salaries to employees, suppliers and loans to financial institutions, and income taxes) and accomplishing shareholder's return expectations on their investment through paid dividends. The total cash flow for a period is calculated as follows:

$$Total\ cash\ flows_N = Cash\ and\ cash\ equivalents_N - Cash\ and\ cash\ equivalents_{N-1} \quad [1]$$

The concept of cash presented in the statement of cash flows and in the balance sheet may differ because balances move from being positive to overdraft as a result of companies' activities. Bank overdrafts have to be used to reconcile the initial with the final balance of cash and cash equivalents in the statement of cash flow, which in some regulatory frameworks are required to be a liability rather than an asset. This means they should be classified as cash and cash equivalents in the statement of cash flow but not in this caption in the statement of financial position. Moreover, the scope of cash and cash equivalents may vary depending on the regulatory framework applicable[4].

IAS 7 (EU)	FRS 1 (UK)	NCRF 2 (PT)
"Cash comprises cash on hand and demand deposits. Cash equivalents are short-term, highly liquid investments, that are readily convertible to know amount of cash and which are subject to an insignificant risk of changes in value".	*"Cash in hand and deposits repayable on demand, less overdrafts repayable on demand. Deposits repayable on demand if the can be withdrawn at any time without notice or period of notice of not more than 24 hours."*	*"Cash comprises cash on hand and demand deposits. Cash equivalents are short-term, highly liquid investments, that are readily convertible to know amount of cash and which are subject to an insignificant risk of changes in value."*

Table 1: Definition of cash and cash equivalents in different regulatory frameworks.

Total cash flow may be either positive or negative, depending on the balance between total cash inflows (receipts) and cash outflows (payments) that occur in the period.

$$\sum Total\ Cash\ Flow_N = \sum Total\ receipts_N - \sum Total\ payments_N \qquad [2]$$

The classification of cash flows into three meaningful groups provides a deeper insight for users, which at a time, can either be positive or negative, according to firms maturity stage.

Cash flows' classification: According to IAS 7, cash receipts and payments must be disclosed separately and systematized in a three-fold classification: operating, investing and financing activities. *Operating activities* include the sales of goods and services rendered and their associated costs, demonstrating the operating capability of the entity and its ability to generate enough cash outflows from its operations or at least to preserve it. *Investing activities* concern cash based on a recognized asset as it relates to the purchase or disposal of tangible fixed and intangible assets and/or financial investments. Cash flows from investing activities are also related to the ability of the entity to generate future cash inflows, as the investment of a period may contribute to the operating inflows of subsequent periods. *Financing activities* relate to the

[4] See appendix 2 for comparison between country specific regulatory frameworks.

ability of the entity to finance itself by issuing shares or through borrowing. Cash flow classification may vary according with the regulatory framework[5].

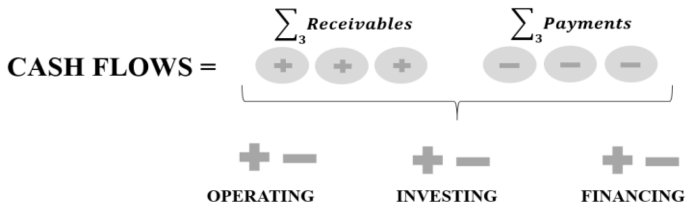

Table 2: Cash outflows and inflows

Interest and dividends classification: Interest and dividends received are usually considered as part of returns on investment recorded as investing activities while interest and dividends paid are a cost of capital considered as financing outflows. An entity "*shall present interest and dividends paid and received as operating, investing or financing activities as long as it presents it in a consistent manner from period to period"* (IAS 7, ¶31). The way interest and dividends are reported has a major impact on cash flow analysis as many ratios depend on operating cash flows which are sensitive to this classification (e.g. quality of income ratio).

Direct method versus indirect method: Assessing cash flow can be determined or estimated, via income statement items or through cash receipts and payments related to operating activities during the period. Under the direct method, companies shall report operating activities within the major categories of cash received from customers or from income sources as well as payments made to suppliers and employees, and cash paid/received for taxes. When compared to the indirect method of reporting operating cash flows, the direct method presents advantages when forecasting firms' future performance (Orpurt and Zang, 2009) and provides incremental information for financial statement users. Nevertheless, costs of shifting from one method to another are perceived to be high. Cash Flows from Investing and Financing activities are always

[5] FRS 1 (UK standard for cash flows) asks for a five-fold classification: operating activities, return on investments and servicing of finance, taxation, investing activities and financing while IAS 7 only requires a three-fold classification.

presented using the direct method. The report of cash flows from the operating activities in either method might also be conditioned by the regulatory framework (e.g. NCRF 2 only allows for the use of the direct method).

Non-cash transactions: Non-cash transactions refer to investing and financing transactions that do not imply cash (e.g. conversion of debt to equity, the acquisition of an entity by issuing stock dividend, stock split and reverse stock or the acquisition of assets through financial leases or by assuming directed related liabilities). Companies are encouraged to separately disclose material non-cash transactions in order to broaden the image of entities' investing and financing activities during the year.

Cash Flows of subsidiaries, joint ventures and associated enterprises: Cash flows from companies presenting consolidated accounts should be presented as one statement of cash flows including the individual cash flows of all subsidiary companies with exception to inter-company cash outflows and inflows. Additionally, when facing acquisitions or disposals of subsidiaries, companies usually disburse or obtain cash, which should be presented as a single line in the statement of cash flows, classified in investing activities.

Foreign currency cash flows: Companies with subsidiaries operating or conducting business involving foreign currencies are subject to exchange rate risk (exposition to receivables and payables to foreign currencies). Operations in foreign currencies have an impact on the cash flow reporting, firstly due to cash flows occurring in foreign currencies which should be translated to the reporting currency at the exchange rate of the moment the transaction occurs or, at least, at an average exchange rate for transactions that take place during the year. Secondly, companies have to take into account unrealized foreign currency gains/losses on cash and cash equivalents balances in the reconciliation between start-year and end of the year currency balances in currencies that have changed during the year.

Ratio analysis based on cash flow information: Information about cash flows also serve as input for financial analysis, adding value for investors and complementing accrual-based ratios by providing additional information on companies businesses' financial pictures (Carlslaw and Mills, 1991). Ratios based on cash flow information provide information about solvency and liquidity, that is, a firm's ability to meet its obligations and pay dividends (e.g. cash interest coverage or cash debt coverage), to evaluate the ability of companies to effectively turn operating income into cash flow from operations (e.g. quality of sales ratio or quality of income ratio) or to evaluate capital expenditures or cash flow returns (e.g. capital acquisitions ratio or cash flow per share ratio)[6].

Companies listed in EU stock exchange prepare the statement of cash flows in compliance with IAS 7. However, entities in the US are required to prepare a statement of cash flow in accordance with FAS No. 95[7]. Similarly to IAS 7, the FAS No. 95 requires a three-fold classification and allows companies to report operating cash flows using either the direct or the indirect method, however encouraging them to privilege the direct method. Countries in EU also have their own domestic regulatory bodies which issued rules to be followed by their national companies which are not subject to IFRS / IAS. As for Portugal, the statement of cash flows is prepared under NCRF 2[8], which is similar to IAS 7. The major difference in NCRF 2 relies on the imposition of the use of the direct method to report cash flows from operating

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[6] See appendix 7 for examples of ratios, their meaning and formula.

[7] The standard was issued by the Financial Accounting Standards Board ("FASB") issued the Financial Accounting Standard ("FAS") No. 95 in 1987. This statement replaces ABP Opinion No.19, *Reporting changes in financial position*, requiring companies to prepare a statement of cash flows. Additionally, it requires specific information on noncash investing and financing transactions to be disclosed separately.

[8] The Portuguese Stock market Authority (CMVM, *Comissão do Mercado de Valores Mobiliários*), issued the *Regulamento* Nr.11/93 which introduced the obligation to present cash flow statements in the financial reporting of Portuguese listed companies from 1994 onwards. Following this regulation the Portuguese Accounting Standards Setter (CNC, *Comissão de Normalização Contabilística*) issued the *Diretirz Contabilística 14*, dating from April 5th, 1994. Both were domestic adaptations of IAS 7. The statement of sources and uses of funds had been part of the accounting regulation since 1977, although under voluntary presentation. This statement show the changes in assets, liabilities and owners' equity between two periods and provide information about investment and financing amounts of the period. Later, with the approval of *Normas Contabilísticas e de Relato Financeiro* (NCRF), financial statements in Portugal, are prepared in conformity with *Normas Contabilísticas e de Relato Financeiro* (NCRF) and *Normas Interpretativas* (NI) which constitute the *Sistema de Normalização Contabilística* (SNC) from 2010 onwards. Then, the obligation to present a cash flow statement was extended to all firms subject to auditing. In 2015, NCRF 2 was amended to be applied for the period beginning on January 1st, 2016.

activities (NCRF 2, ¶14 and IAS 7, ¶18). Additionally, the Portuguese standard, in contrast to IAS 7, does not require disclosing the amount of significant cash and cash equivalents balances held by the company not available for use by the group or other additional information that could be relevant to users in understanding the financial position and liquidity of the entity (IAS 7, ¶48-50), neither requires the disclosure of the cash and cash equivalents components or its reconciliation to cash and cash equivalents in the cash flow statement (IAS 7, ¶45). Furthermore, bank overdrafts which must be included as a component of cash and cash equivalent in the statement of cash flows (IAS 7, ¶8) have to be considered as a financing activity in both normative but are not explicitly required to be included as component of cash and cash equivalent in NCRF 2[9]. In this context, Section 3 will review the literature related to reporting and analyzing cash flows.

3. Literature Review

Literature review is divided into empirical studies, more objective, based in facts and informative, and normative studies, which are subjective and make statements that cannot be proved (see appendix 4 for normative and empirical literature review table).

In the light of the recent events and facing the need of improving investors and creditors confidence in financial accounting and reporting, the direct method is agreed to be the key (Brome, 2004) as it is less susceptible to manipulation and it provides a clearer picture of operating cash flows. The information provided by the direct method cash flow is more useful when compared with the indirect method, as presenting operating cash flows under the direct method improves the forecast of future cash flows and earnings (Orpurt and Zang, 2009). Additionally, financial statement users tend to use direct method cash flow information when available in detriment of indirect method information (Hales and Orpurt, 2013). Similarly, Zao

[9] See appendix 4 for table comparison between paragraphs in IAS 7 and NCRF 2.

(2010) points towards the benefits of the direct method in providing incremental information to predict future cash flows as well as Krishnan and Largay (2000) investigate the predictive ability of direct method cash flow information. The non-articulation of cash flows statements and its implications also enhance the advantages of the direct method. The non-articulation problem in the indirect method decreases its usefulness as its turns tough to understand the nature of the adjustments to net income (Bahnson, Miller and Budge, 1996), while the direct method helps to mitigate those articulation errors (Orpurt and Zang, 2009). On the other hand, the indirect method presents advantages at the level of implementation costs and its capability to highlight not only the difference between net income and net cash from operating activities but also the operating changes in non-cash working capital accounts. Furthermore, prior research also explains corporate reporting comprehensiveness, which represent "*a quality of disclosure concerned with the extent of details released on each item of information included in a corporate annual report*" (Wallace and Naser, 1995; Wallace et al., 1994; and Wallace et al., 1999), as an increasing function of structure related variables (average number of employees, total assets, total revenue, total liabilities or market capitalization) as determinants of cash flows disclosures (Wallace, Choudhury, Adhikari, 1999). Authors conclude bigger and high leveraged firms more frequently need external capital to finance their growth and have usually an increasing number of financial statement users (such as investors, customers, suppliers, scholars, lenders) which increases the public demand for information about its activities and consequently the quality of their reporting.

In Portugal, few studies have approached cash flow reporting. Caiado and Gil (2010) and Caiado (2014) wrote normative studies, where Portuguese regulation is described, providing guidance on how it should be applied and illustrating with examples of preparation of a statement of cash flows in articulation with the company's accounting plan. Regarding empirical research, two studies emerge. Simões (2011) discusses the usefulness and predictive ability on the disclosure of cash payments and receipts over the disclosure of reconciliation between net income and accruals. Peixinho (2016) provides a descriptive overview of cash flow reporting for companies listed in Euronext Lisbon, and discusses issues about presentation and disclosures, such as the choice between direct *versus* indirect methods for reporting cash flows from operating activities, the classification of interests and dividends paid and received, and the quality of income, in 2013 and 2014.

From the literature reviewed one concludes there is not a firm consensus about direct method *versus* indirect method advantages, regulation allows for accounting choice and there is little evidence on cash flow reporting and disclosure in Portuguese companies. This work project extends the research of Peixinho (2016) by adding more years and goes beyond a descriptive analysis. This work project fills the void by providing evidence on presenting and disclosing cash flows with evidence from Portuguese Listed companies, considering compliance with IAS 7 and the numerical impact of companies' disclosure choices.

4. Methodology, Sample and Data

4.1. Methodology

This work project aims at analyzing what and how Portuguese listed companies report in the Statement of Cash Flows and related notes in annual reporting. The study describes if and how those companies comply with IAS 7 requirements for presentation and disclosure of cash flows and, additionally, the numerical impact of companies' disclosure choices, for the years of 2015 and 2014. For this purpose, the following research questions (RQ) are addressed:

- RQ1: *How do Portuguese listed companies present the Statement of Cash Flows and what do companies disclose in the corresponding notes considering the requirements of IAS 7?*

In order to assess presentation and disclosure, it is used descriptive statistics. To produce an overview of companies cash flows presentation and disclosure, a checklist, containing the paragraphs of IAS 7, with "Yes" or "No" questions is filled for each company. This checklist concerns Cash and cash equivalents, Additional disclosures, Direct *versus* Indirect method, Income taxes, Investments in subsidiaries, Foreign currency cash flows, Interest and dividends and Non-cash transactions.

- RQ2: *Is corporate reporting comprehensiveness an increasing function of structure related variables in Portuguese Listed Companies?*

To assess compliance, bivariate analysis is used, involving the study of more than one variable, relationships and correlations between variables analyzed, using an ANOVA single factor analysis. It analysis quality of reporting as a function of firm structure variables. Moreover, in order to assess the extent to which structure related variables can explain comprehensiveness a score based approach is used (Wallace, Choudhury and Adhikari, 1999), using scores attributed to companies as a variable to correlate with structure related variables which were measured through excel data basis referred in the RQ1.

- RQ3: *What would be the impact of classifying dividends and interest paid and received into Operating Cash Flows rather than in Financing and Investing Cash Flows?*

To assess the impact of choice it is used, mainly, descriptive statistics to assess the impact of Interest and dividends paid and received classification. This impact is measured on Operating, Investing and Financial Cash Flows and, additionally, the impact of interest and dividends paid reclassification into OCF, separately, is measured on the quality of income ratio (Operating Cash Flows divided by Operating Income).

4.2. Sample

The initial sample is compounded by 47 Portuguese listed companies. The list of Portuguese companies was retrieved from the Euronext Lisbon website[10]. Firms in the financial sector were

[10] List was download from http://www.bolsadelisboa.com.pt/cotacoes/accoes-lisboa

excluded[11] resulting in a final sample of 43 non-financial firms. From this sample almost 30% are from industrials Industry, followed by the Consumer services industry (26% of the sample). Technology, Basic Materials and Consumer Goods represent 10% each of the sample and the remaining includes Health care, Telecommunications and Utilities.

The following structure-related variables were considered to be good proxies of firm *structure related variables.* In what regards to total assets, 63% of the companies in 2015 and 60% in 2014, reported total assets less than one thousand million Euros, while only 12% of the companies in 2015 and 9% in 2014 show total assets above five thousand million Euros. In what concerns to Revenues, 70% of the companies present less than one thousand million Euros, in 2015 and 2014 and only 7% present revenues above five thousand million Euros. In terms of Market capitalization, around 50% of the companies in both years had a total market capitalization below one hundred million Euros and only 9% had a total market capitalization above one thousand million Euros.[12]

Additionally, in 2015 and 2014, 93% of the companies presented consolidated accounts[13]. The *Big-Four* companies audited 81% of the companies which may also be relevant on the way cash flows are presented and disclosed.

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[11] From the initial sample firms in financial sector, such as banks, were excluded because of comparative purposes as banks operating activity is to lend and borrow money, interests paid and interests received are part of their operating cash flow and would then add diversity to the sample. Banks excluded were BANCO COMERCIAL PORTUGUÊS (BCP), BANCO PORTUGUÊS DE INVESTIMENTO (BPI), BANCO SANTANDER and MONTEPIO.

[12] Additionally, regarding average number of employees, 44% of the companies have 1,000 to 5,000 employees in 2015, while in 2014 there were only 42% in this gap. In 2015 and 2014, 35% and 37% of the companies, respectively, had an average number of employees inferior to 1,000 and only 5% of the companies (in 2015 and 2014) had more than 5,000 employees on average, most of them in the consumer services industry.

[13] Only three companies do not present consolidated accounts which are the Sports SADs as they do not have subsidiary companies (Sporting Club de Portugal, Futebol, SAD, Sport Lisboa e Benfica, Futebol, SAD and Futebol Clube do Porto, Futebol, SAD).

4.3. Data

Data was hand collected, from companies' Reports and Accounts[14] and This procedure required an extensive study not only of companies' statements of cash flows but also the notes to their financial statements, namely main accounting policies in what concerns cash and cash equivalents, the notes of consolidation perimeter, changes in the consolidation perimeter, cash and cash equivalents or any other that could include relevant information related with cash flow reporting. Data collected was documented in excel basis[15], producing two different sets of information: an excel database with financial information, and an excel checklist[16] of companies' presentation and disclosure considering IAS 7. The former includes financial data such as structure related variables (total assets, total revenue, leverage, current liabilities, average number of employees and market capitalization), total amount of operating, investing and financing cash flows, total cash flow, interest and dividends paid and received, total cash flow, operating income, the quality of income ratio, the industry and the company's auditor; In the referred checklist, it was verified, for each company, through their Reports and Accounts, what and how entities were presenting and disclosing regarding IAS 7, using "Yes" or "No" answers. Results are divided into eight categories: Cash and cash equivalents, Additional disclosures, Direct *versus* Indirect method, Income taxes, Investments in subsidiaries, Foreign currency cash flows, Interest and dividends and Non-cash transactions.

Total cash flow from Portuguese Listed Companies, despite being negative, increased from 2014 to 2015. While in 2014, 58% of companies reported negative total cash flows, in 2015, companies reporting negative total cash flows were less than half of the sample (37%). Negative

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[14] Reports and Accounts, for 2014 and 2015, were extracted from companies' official websites.

[15] A database in Excel was built, with 62 columns and 86 rows contemplating several numerical insights about Portuguese Listed Companies, Ratios determined based on Reports & Accounts information, notes on companies' disclosures and presentation of cash flows.

[16] The checklist concerns an excel data basis in which each line corresponds to a paragraph of IAS 7 and each column to a company. This table has 48 columns and 80 rows. Paragraph in IAS 7 considered in the checklist are disclosed in appendix 4.

cash flows are not necessarily an attention call for companies as it also depends on firms' characteristics and its maturity stage. Usually, fast growing companies report low or negative operating cash flows as a result of investment in operating working capital (While, 1998).

Units: Thousands of Euros	2015	2014
Negative sign of cash flows	(1,535,974)	(2,230,281)
Positive sign of cash flows	605,232	660,435

Table 3: Sign of total cash flows for the sample in 2015 and 2014.

Cash flows from operating activities are positive in the majority of the companies in the sample, with exception of eleven companies in 2014 and eight in 2015. Cash flows from operating activities indicate the ability of the operations of the company to generate sufficient cash flows to keep business in the short and long term. In terms of total amounts, Cash Flows from operating activities are the most representative of total cash flows in 2015 and 2014.

Units: Thousands of Euros	2015	2014
Cash flow from Financing activities	(4,484,127)	(1,834,793)
Cash flow from Investing activities	(3,105,422)	(5,299,390)
Cash flow from Operating activities	6,445,180	5,689,725

Table 4: Total Cash flows from operating, financing and investing activities in 2015 and 2014.

Cash flows from operating activities varied significantly from 2014 to 2015. Minimum values moved from -767,219 thousands of Euros[17] in 2014 to -42,187 thousands of Euros in 2015. Additionally, maximum values moved from 779,747 to 1,393,824[18] thousands of Euros, in 2014 and 2015, respectively, as shown in table 5.

	2015		
Units: Thousands of Euros	OCF	FCF	ICF
Minimum	(42,187)	(573,967)	(838,755)
Maximum	1,393,824	110,851	94,925
Standard deviation	280,333	182,051	195,959
Average	149,888	(104,282)	(72,219)

	2014		
Units: Thousands of Euros	OCF	FCF	ICF
Minimum	(767,219)	(498,696)	(1,593,159)
Maximum	779,747	695,141	83,149
Standard deviation	260,876	178,613	293,572
Average	115,317	(38,502)	(112,004)

Table 5: Minimum, maximum, standard deviation and average of OCF, FCF and ICF 2015 and 2014.

[17] As a result of COMPTA – EQUIPAMENTOS E SERVIÇOS DE INFORMÁTICA, S.A. operating cash flows which were extremely negative in comparison with the second lowest value of the sample.

[18] As a result of GALP ENERGIA, SGPS, S.A. operating cash flows which were 533,438 thousand Euros superior to the second highest value of operating cash flows in the sample.

Regarding the quality of income ratio, which assesses entities' ability to turn operating income into operating cash flow, for Portuguese Listed Companies it varies substantially from 2014 to 2015. The industries of Oil & Gas and Consumer goods present the highest quality of income in both years[19]. These results might be explained by the fact IBERSOL business (Consumer goods industry) which explores about 136 restaurants generating an annual sales volume of around 70 Million Euros, have a really short receivables cycle, as consumers pay at the time of the purchase. However, the consumer goods industry is also the one presenting higher volatility from 2014 to 2015, also due to variations in IBERSOL'S quality of income, which was much higher in 2014, as it also have been impacted by its business segment in Angola, in which the oil and financial crisis is turning it difficult to receive any amounts from that country. Telecommunications industry is the only one presenting negative value for the quality of income, in 2015, composed by PHAROL and SONECOM (which participates in NOS CAPITAL), which have reporting operating cash outflows during 2015. In the PHAROL case, the company did not report any revenues or receivables in 2015, allied with fact it had reflected payments of commitments that arose in 2014, related to the transfer of tax responsibilities to OI, and third party suppliers and consultants. On the other hand, SONAECOM, reported an increase in its operational costs, of about 9.1%, 3% more than the increase in revenue, which resulted in changes in its operating cash flow.

This ratio, is thus, very sensitive to industries in which companies operate and to business decisions, representing an important role to complement accrual-based ratios and to provide additional information on companies businesses' financial pictures (Carlslaw and Mills, 1991). This ratio strongly depends on the way interests are reported thus it is relevant to highlight if

[19] Oil & Gas industry is only composed by Galp, which presents a quality of income between 3 and 4 in both years, with a strong operating income and operating cash flow, particularly in 2015. In the Consumer goods industry Ibersol is the company increasing the average quality of income, presenting, in 2015, a ratio of around eleven points.

interest and dividends paid are disclosed in operating activities rather than financing, the quality of income would be lower. The opposite would occur if interest and dividends received are classified as operating activities rather than investing.

5. Results

Presentation & Disclosure (RQ1)

The following results provide an overview of companies' cash flows presentation and disclosure. Results are divided into categories, bearing in mind the theoretical background and regulatory framework exposed in section 2: Cash and cash equivalents, Additional disclosures, Direct *versus* Indirect method, Income taxes, Investments in subsidiaries, Foreign currency cash flows, Interest and dividends and Non-cash transactions.

Components of cash and cash equivalents: Concerning the requirement to present a statement of cash flows, all the 43 companies both in 2014 and 2015 (¶1).

Companies also present cash on hand and demand deposits (¶6)[20]. Additionally, in 2014 and 2015, 43% of companies reported bank overdrafts[21]. Bank overdrafts shall be included when reconciling the initial with the final balance of cash and cash equivalents in the statement of cash flow (¶8). All the 43 companies include bank overdrafts in the cash flow reconciliation but classify it as a liability; only one company does not include term deposits in the cash flow statement[22] with no impact to the reconciliation because the amount is the same from 2014 to 2015. Also, in 2014 and 2015, all the 43 companies disclose components of cash and cash equivalents (¶45), the policy they adopt in determining the composition of cash and cash

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[20] Cash on hand and demand deposits are *"short-term, highly liquid investments, readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value (...) an investment normally qualifies as a cash equivalent only when it has a short maturity of, say, three months or less from the date of acquisition"*, as required by IAS 7 (¶ 6 – 7).

[21] A bank overdraft is a liability rather than an asset and as so, its treatment should be in agreement with the previous fact in the statement of financial position.

[22] This company is SAG GEST – SOLUÇÕES AUTOMÓVEIS, SGPS, S.A., which is also the only company reporting operating cash flows using the Indirect Method rather than the direct one.

equivalents (¶46), classify cash flows into operating, investing and financing activities (¶ 10 and 11) and disclose a reconciliation of the amounts of cash and cash equivalents in its statement of cash flows with the equivalent item reported in the statement of financial position (¶45). However, there are two companies in which cash and cash equivalents at the end of the period is not equal to cash and cash equivalents disclosed and the bank overdrafts[23] for 2014 and 2015.

Additional disclosures: Only 10 companies disclose issues such as undrawn borrowing facilities that may be available for future operating activities with no restriction on the use of these facilities, explanations on the composition of the main groups of the cash flow statement, the rating of short term investments and other relevant information regarding business specificities. Regarding the amount of significant cash not available for the group, seven companies have disclosed that information[24], mainly companies with operations in Angola which due to the financial crisis in the country are subject to legal restrictions on transfers to outside Angola. IAS 7 requires companies to disclose the amount of significant cash and cash equivalent balances held by the entity that are not available for use by the group (¶48) or other additional information that entities may consider relevant (¶50).

Direct versus indirect method: 42 companies report operating cash flows using the direct method and only one reports it using the indirect method[25]. According to the Portuguese regulation (NCRF 2, ¶14), companies must report cash flows from operating activities using the direct method. The majority of Portuguese listed companies using the direct method have subsidiaries operating in the country, and thus presenting individual accounts in which cash

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[23] Companies were SAG GEST - SOLUÇÕES AUTOMÓVEL GLOBAIS, SGPS, S.A. e SOCIEDADE COMERCIAL OREY ANTUNES, S.A. for which it was not possible to discover the reason why cash and cash equivalents at the end of the period do not match with the sum of cash and cash equivalents disclosed and bank overdrafts. Reperformance of calculations was tried using different assumptions but neither provided any reason to justify the differences.

[24] These companies are GALP ENERGIA, SGPS, S.A, MOTA ENGIL, SGPS, S.A., MARTIFER, SGPS, S.A., SPORTING CLUB DE PORTUGAL, FUTEBOL, SAD, SPORT LISBOA E BENFICA – FUTEBOL SAD, IBERSOL, SGPS, S.A., SOCIEDADE COMERCIAL OREY ANTUNES, S.A..

[25] This company is SAG GEST – SOLUÇÕES AUTOMÓVEIS, SGPS, S.A., which is also the only company reporting operating cash flows using the Indirect Method rather than the direct one.

flows from operating activities are also prepared using the direct method. The direct method presents several advantages when compared to the indirect method of reporting operating cash flows: it is a better instrument when forecasting future performance, both future cash flows and earnings (Orpurt and Zang, 2009) and it provides incremental information for financial statement users, particularly, about future cash flows (Zao, 2010).

Reporting taxes on income: From the sample, 43 companies disclosed taxes on income separately and "classified as cash flows from operating activities unless they can be specifically identified with financing and investing activities" (¶ 35), which did not occur in any of the companies in the sample, in compliance with IAS 7.

Cash flows of subsidiaries, joint ventures and associated enterprises: From the sample, 32 companies have disclosed cash flows arising from investments in associate or subsidiary companies accounted by the use of the equity cost method and only 19 had cash flows arising from changes in ownership interests in subsidiaries and other businesses. *"The aggregate cash flows arising from obtaining and losing control of subsidiaries or other businesses shall be presented separately and classified as investing activities"* (IAS 7, ¶39) for which all the companies reporting changes in ownership were in compliance.

Foreign currency cash flows: Foreign currency cash flows have to be separately reported in the statement of cash flows in order to reconcile cash and cash equivalents at the beginning and at the end of the period (¶28). It was observed that 22 companies disclosed, in the statement of cash flows, the "Effect of exchange differences" and seven did not. Among the non-reporting companies, some include in their consolidation perimeter companies that do not operate in Euro currency zone; the remaining do not disclose exchange differences and were confirmed to have only subsidiaries in the consolidation perimeter operating in Euros. One possible motivation for non-disclosure of foreign currency fluctuation to reconcile cash and cash equivalents at the beginning and at the end of the period despite having companies in the consolidation perimeter operating in other currencies rather than Euro could be related with the materiality of this disclosure, thus these foreign currency fluctuations could be of very small amounts as it depends on the amount of cash and cash equivalents in those locations.

Classifications of interests and dividends: Reporting cash flows from investing and financing activities do not present any exception in what concerns to the requirements of IAS 7, as for all the sample, they are disclosed separately (¶31) and "cash flows from interest and dividends received and paid are classified in a consistent manner from period to period, either in operating, investing or financing activities" (¶31). However, it is important to highlight, from this sample, only two disclose Interest and Dividends paid and received differently, classifying at least one, in operating activities[26]. This choice is consistent in 2014 and in 2015, however, a different classification of interest and dividends paid and received, as allowed by IAS 7, would have an impact in all the types of cash flows, operating, investing and financing activities cash flows. Given the significant value of interest and dividends paid, this is impact is measured in RQ3.

Non-cash transactions presentation: Only one company discloses information on non-cash transaction[27]. The remaining companies do not disclose information on non-cash transactions, turning results on this requirement inconclusive as they might not be disclosing it correctly or they might not be disclosing it because it does not apply to them. *"Investing and financing transactions that do not require the use of cash or cash equivalents shall be disclosed elsewhere in the financial statements in a way that provides all the relevant information about these investing and financing activities"* (IAS 7, ¶ 43). Examples of non-cash transactions are (i) the

[26] GRÃO PARÁ, S.A.. presents, Interest received as cash inflows from the operating activities. and JERÓNIMO MARTINS, SGPS, S.A dividends paid as cash outflows from the operating activities.

[27] SONAECOM, SGPS, S.A. discloses a table with the items mentioned in IAS 7 and the amount of non-cash transaction related to each one of them, namely conversion of debt to equity, the acquisition of an entity by means of an equity issue, and the acquisition of assets either by assuming directly related liabilities or by means of a financial lease.

acquisition of assets either by assuming directly related liabilities or by means of a finance lease; (ii) the acquisition of an entity by means of an equity issue; and (iii) the conversion of debt to equity" (¶44).

Presentation and disclosure as function of firm structure (RQ2)

Based on the overview provided in RQ1, to measure quality of reporting as a function of firm structure, a score was attributed to each company. This score was produced considering the requirements of IAS 7 that can effectively be used to assess if companies are disclosing the requirements correctly or not, excluding topics that might not be applicable to all entities or depend on their accounting choices[28]. The paragraphs selected from IAS 7 were Presentation of the Statement of Cash Flows (¶ 1), Components of cash and cash equivalents (¶ 6), liquidity and term of cash and cash equivalents (¶ 6/7), classification groups (¶ 10), Report cash payments and receipts from investing and financing activities (¶ 21), Expenditures Iresult in a recognized asset (¶ 16), Separately disclosure of interest and dividends and consistent classification from period to period (¶ 31), Disclosure cash flows from taxes on income and classification of cash flows from taxes on income as Operating activities (¶ 35), Components of cash and cash equivalents (¶ 45), Cash flow statement reconciliation with financial position (¶ 45), Policy adopted when disclosing cash and cash equivalents (¶ 46), Cash and cash equivalents not available for use and other additional information (¶ 48). Considering the score attributed to each company (Appendix 4) and taking into account firm structure related variables[29], potential correlations between firms' presentation and disclosure of cash flows and structure were tested. As referred in section 5.1., based on the study of Wallace, Choudhury and

[28] Questions related to particular conditions of firms, such as reporting bank overdrafts, foreign currency effects or the classification of interest and dividends are examples of questions excluded from the score as they depend on companies' specific conditions or disclosure options. For each one of those questions it was attributed 1 point if company was disclosing it or 0 if there was a non-disclosure. The maximum score is 17.

[29] Average number of employees, total Revenue, Assets and Debt, total current liability and market capitalization which were described in section 5.3. Sample.

Adhikari (1999), this research uses a score to assess the extent to which comprehensiveness can be explained by structure related variables. In order to understand the relation between the presentation score and firm structure variables. Table 6 shows the results obtained from the ANOVA single factor analysis. There is a statistical significant relationship of these variables by its p-value which is less than 0.05.

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Total score	43	577	13,41860465	0,392026578
Market capitalization	43	19759,09286	459,5137875	890045,6222
Total Revenue	43	86893,55995	2020,780464	30538452,97
Total Assets	43	100312,0685	2332,838803	23735986,98
Total Debt	43	36957,98569	859,4880393	2735697,687
Average number of employees	43	225928	5254,139535	199284086,8

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	779753624	5	155950724,8	3,638264297	0,003392015	2,249845942
Within Groups	10801739358	252	42864045,07			
Total	11581492982	257				

Table 6: ANOVA single factor, p-value representation.

One-tailed tests of significance is used to evaluate the statistical significance of the correlations presented. The coefficients of correlation between disclosures and firm structure variables exist, and are positive although they do not present high correlation values. The higher the total score attributed to the company, meaning a greater compliance with IAS 7, the higher the amounts of firm structure variables are.

	Total score	*Market capitalization*	*Total Revenue*	*Total assets*	*Total debt*	*Average number of employees*
Total score	1					
Market capitalization	0,301471933	1				
Total Revenue	0,022347253	0,027770866	1			
Total Assets	0,179703388	0,280619428	0,839571815	1		
Total Debt	0,068408606	0,248353156	0,800313484	0,955189111	1	
Average number of employees	0,259077725	0,060564236	0,315843532	0,086492546	0,031968121	1

Table 7: Table of correlations between total score and firm structure variables.

These results show that large and/or high leverage firms were more likely to provide detailed cash flow information than small and/or low leverage firms as usually larger firms present added needs of external capital to finance its growth which imply better financial information in order to better clarify their financial statement users which is consistent with findings from Wallace, Chouldhury and Adhikari (1999).

In this specific case, correlations concerns only listed companies which imply minimum levels of quality reporting. This could be an opportunity for further research, using Portuguese non listed companies to test comprehensiveness as an increasing function of firm structure variables and comparing results with results obtained using Portuguese listed companies.

Impact of accounting choice in presentation of cash flows - (RQ3)

Considering that investment income and interest charges may also be classified as operating activities, accordingly to IAS 7, as long as entities present it in a consistent manner from period to period, it was evaluated the impact of this choice.

	2015		
Units: Thousands of Euros	Real Cash Flows	Cah Flows reclassified	Var.
Cash flow from Financing activities	(4,484,127)	(984,591)	*(3,499,535)*
Cash flow from Investing activities	(3,105,422)	(3,389,347)	*283,925*
Cash flow from Operating activities	6,445,180	3,229,570	*3,215,610*

	2014		
Units: Thousands of Euros	Real Cash Flows	Cah Flows reclassified	Var.
Cash flow from Financing activities	(1,834,793)	1,414,576	*(3,249,369)*
Cash flow from Investing activities	(5,299,390)	(5,183,377)	*(116,013)*
Cash flow from Operating activities	5,689,725	2,255,710	*3,434,015*

Table 8: Impact on total cash flows from operating, investing and financing activities from reclassification of dividends and interests paid and received.

Reclassifying dividends and interests paid and received into Operating cash flows would decrease substantially cash flows from operating activities, increasing almost in the same proportion cash flows from financing activities and residually cash flows from investing activities. The impact on Cash Flows from investing activities is reduced once Portuguese Listed Companies do not have very high cash flows resulting from dividends and interest received, which are usually classified as Investing activities. The impact is similar for the year of 2014 and 2015.

Impact in (Units: Thousands of Euros)	Cash Flow from Operating activities	Cash Flow from Investing activities	Cash Flow from Financing activities	Impact in total amount of OCF
Interest paid as financing activites	1,823,262	=	(1,823,262)	6,445,180
Dividends paid as financing activites	1,676,273	=	(1,676,273)	6,445,180
Interest received as investing activities	(117,344)	117,344	=	6,445,180
Dividends received as investing activities	(166,581)	166,581	=	6,445,180
Interest paid as operating activities	(1,823,262)	=	1,823,262	4,621,918
Dividends paid as operating activities	(1,676,273)	=	1,676,273	4,768,907
Interest received as operating activities	117,344	(166,581)	=	6,562,524
Dividends received as operating activities	166,581	(166,581)	=	6,611,761

Table 9: Impact of reclassification of dividends and interests paid and received into operating activities in 2015.

It should be noted that the way interest and dividends are reported has a major impact on cash flow analysis as many ratios depending on operating cash flows are sensitive to this classification, as operating activities will report higher values if investing income and interest charges are classified as operating inflows but will have lower value if financing expenses are classified into operating activities. Considering only the reclassification of interest paid into operating activities rather than investing activities, cash flows from operating activities would diminish almost 30%, in 2015 and 40% in 2014. There would be industries such as the technology industry that would pass from positive cash flows of operating activities to negative (182,203 to -37,323 thousands of Euros, respectively, in 2015). This decrease would have an impact on the quality of income ratio of, on average, 1.04 points, for 2015, which corresponds to a 31% diminish. Moreover, considering only the reclassification of dividends paid into operating activities rather than investing activities, operating cash flows would decrease 26% in 2015 and 23% in 2014. This decrease would have an impact on the quality of income of, on average, 0.3 points, for 2015, which represents a negative impact of 9% in the ratio[30].

Future research may consider the impact on ratio analysis of this classification and its impact on financial statement users' perspective when analyzing information about cash flows as a tool to evaluate companies' liquidity and ability to generate cash and going concern as well as the impact of these ratios on financial statement users' decisions. Additionally, further research should also investigate the motives behind this accounting decision.

6. Conclusion

This work project aimed at analyzing what and how Portuguese listed companies reported in the Statement of Cash Flows and related notes in annual reporting. The study describes, on the one hand, if and how Portuguese listed companies comply with IAS 7 requirements for

[30] Tables of results are presented in appendix 6 and 7.

presentation and disclosure of cash flows and, on the other hand, the numerical impact of companies' disclosure choices, complementing existent Portuguese literature.

Portuguese listed companies are converging in what concerns to presentation and disclosure of cash flows, presenting high level of compliance with IAS 7. The results proof consistency and uniformity among Portuguese listed companies for 2015 and 2014. Nonetheless, there is still room for improvement, facing the needs of the markets and financial statement users and the increasing pressure of regulators, particularly, at the level of entity's financing activities and disclosures to understand the liquidity of an entity and restrictions on cash use. This issue is also being address by IASB and included in the amendments proposed to become effective for reporting periods beginning on or after 1 January 2016. Continuously improvement on information provided is crucial, instigating greater transparency and comparability among companies and also to provide fair evaluations on company's liquidity for financial statements users. Additionally, the study evidences the impact of accounting choices, namely, on the classification of interest and dividends paid.

Future research could complement this work project' results with the reasons behind companies' disclosure choices, that can be assessed through interviews and questionnaires held with financial statement preparers and companies' auditors. Furthermore, the analysis of cash flow reporting from financial institutions, which were excluded from this research due to their specific regulation might be a topic for future research, given its relevance for Portuguese economy and recent events that increase volatility in banking activity. Furthermore, the extent to which companies' presentation is related to the information system companies' use might also represent a relevant topic to assess the reasons behind companies' choices. Finally, adding more periods to the analysis in order to deeper test for consistency and follow up companies' evolution in complying with the reporting standard, particularly in periods subsequent to amendments in IAS 7.

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