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Reporting Cash Flow

Evidence from Companies Listed in the Euronext Lisbon

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Title:

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Abstract: Based on the 2013 and 2014 consolidated statements of cash flows of companies listed in *Euronext* Lisbon, this Work Project analyses the cash flow disclosures, namely if they are in accordance with *International Accounting Standards 7,* specifically the format, the choice of classification interests, dividends paid and received and the composition of cash and cash equivalents. Additionally, quality of income ratio is analyzed due to its importance for users of financial statements. The results show evidence of uniformity and consistency in the use of the direct method for reporting operational activities in both years, but there are some differences regarding the disclosure of interests and dividends, paid and received, respectively.

Key words: IAS 7, Statement of Cash Flows, Direct method, Cash and cash equivalents, *Euronext* Lisbon.

1. Introduction

Companies with shares listed in any EU stock exchange should report cash flows according to IAS 7 - *International Accounting Standards*, a standard issued by IASC (International Accounting Standards Committee) which dates back to December 1992 and has been in force since January 1994. In April 2015, a Disclosure Initiative was published in order to amend the IAS 7. The objective of this proposal was to improve the effectiveness of information disclosed to investors, namely how entities provide information about its debt[1].

Preparers should assure that information in the financial statements complies with the accounting regulation, and make sure it is relevant and reliable so that users of financial statements can analyze changes of cash and cash equivalents and better predict future cash flows. Moreover, it allows preparers and users to have a better understanding on how an entity is managed and the cash impact of the manager's decisions.

The statement of cash flows is part of the obligatory financial reporting for companies which apply IAS/IFRS[2] and it is an item of utmost importance nowadays. Together with the statement of financial position, the statement of comprehensive income, the statement of changes in equity, and the notes they form the complete set of financial information available to public investors.

This work project aims at analyzing the statement of cash flows and how it is disclosed to the investors by companies listed in the *Euronext* Lisbon. It is also important to understand the impacts in reporting cash flow with different methods from the investor's perspective. One of the main points related with this disclosure is to provide to users of the financial statements useful

[1] To change the way the disclosure of financing activities are made.
[2] *International Financial Reporting Standards*

information about the ability of the firms to generate cash and cash equivalents and how do they use those cash flows.

The work project proceeds as follows. Section 2 provides the theoretical background, namely what is a cash-flow and how it can be estimated. Section 3 describes the regulation regarding IAS 7 and some of its particularities followed by section 4 which presents the literature review. Section 5 outlines the research questions, the methodology, the criteria for selecting the sample, and data. Section 6 discusses the results. The paper ends with Section 7, a conclusion on the main points discussed throughout the thesis, identifying some limitations as well as studies that may be developed to further deepen the topic.

2. What is the concept of cash flow?

Cash flow[3] is the change in cash between two moments. It is worth notice that there is a difference between the cash concept in the balance sheet and in the statement of cash flows, as the former is prepared in an accruals accounting basis while the cash flow statement is prepared in a cash basis. Thus, the narrow concept of cash adopted in the balance sheet is limited to coins and notes, and its measure has the advantage of being objective. However the definition of cash adopted in the cash flow statement is broader, as it incorporates cash equivalents, namely short-term investments. These short-term investments which are part of cash and cash equivalents must have a maturity equal or less than three months from the date of the acquisition. It is also important to notice that the decision to include cash equivalents in the cash concept has implication in the cash flow statement (fewer lines) leading to differences in the value of cash flow by activity. Also the cash and cash equivalents can include the deduction of bank overdrafts, what also justifies the former comment.

[3] *Cash* is more directly related to the users' needs than funds. Additionally, the concept of *funds* meaning working capital is a measure of resource flows less liquid than cash, and is harder to understand than the concept of cash, what may explain the shift towards cash flow statement.

Total cash flow is estimated as follows:

$$Total\ Cash\ Flow_{N} = Cash\ and\ cash\ equivalents_{N} - Cash\ and\ cash\ equivalents_{N-1} \qquad [1]$$

Total cash flow can also be calculated as the sum of all receipts less the total payments made over a period of time and it can be estimated as the change of cash and cash equivalents during a period *N*[4]. It may be positive or negative, depending on the size of total inflows and total outflows for the period.

$$Total\ Cash\ Flow_{N} = Total\ receipts_{N} - Total\ payments_{N-1} \qquad [2]$$

Total cash flow result from the algebraic sum of all items that affect cash balance within a certain period and it is the bottom line of the statement of cash flows. Although useful, this information is limited when investors address the question about how a company raises and spends cash during a period, and this answer is only provided directly by the statement of cash flow.

Cash flows can be classified in three categories[5], attending to the types of activity: operating, investing and financing. Concerning to the source of cash obtained and the destination of the cash used, cash inflows and cash outflows are classified according to the activity to which they relate. Thus, the statement of cash flows shows the following division:

$$Total\ Cash\ Flow_{N} = OCF_N + ICF_N + FCF_N \qquad [3]$$

Where OCF_N stands for operating cash flow, ICF_N is the investing cash flow and FCF_N is the financing cash flow obtained (when positive) or used (if negative) in a certain period *N*.

Operating cash flow relates to the main revenue of the company, that is the receipts from customers and the payments made to suppliers, employees and the state. In fact, this indicator is crucial to analyze the ability of the company to repay loans, investing and paying dividends which are important for the investor. It is expected, in most of the situations that it has a positive

[4] Cash flows are inflows and outflows of cash and cash equivalents

[5] In France (FR1) it is possible to group cash flows into five categories, as follows: operating activities, return on investments and services of finance, taxation, investing activities and financing

sign since it is related with the core of the business. On the other side, negative cash flows can be viewed as a serious potential indicator of weakness (possibly long-term bankruptcy) or the need for rapid growth to achieve a more stable situation. (Stolowy, 2006) From another perspective, if the company is investing heavily in working capital or fixed assets, what happens in most start-ups or even in companies with rapid growth, it leads to have negative cash flow activities. The value being negative means that investors are more aware as it could experience problems in the future. Even profitable firms may encounter liquidity problems. (White, 1998) There are two alternative ways to calculate the OCF – direct method and the indirect method. The choice of the direct method enables users of financial statements to calculate the quality of income ratio which measures how much money is created through each euro in the net income.

Cash from investing activities[6] relates to the payments and receipts from the acquisition and disposal of long-term assets and other investments (with a maturity higher than three months). In other words, it is related with the providers of non-current assets. Cash flows from investment activities are very often negative since the company spends more money on buying new assets than the sale of those that are obsolete or unused. However, it is possible to verify the case of disinvestment in which the cash flow generated by investing activities is positive, for example, the sale of a subsidiary. (Stolowy, 2006)

Cash from financing activities are the payments and receipts in the size and composition of the contributed equity of an entity and its debt. The financing activities are related to cash flows with providers of non-current liabilities and equity such as shareholders, bondholders, among others. The company raises capital from outside, through borrowing or by issuing shares. And paying back the debts, buy back the shares or paying dividends reduces the financing cash flow.

[6] Although *free cash flow* is not a consensual concept, at least it includes the operating cash flow less capital expenditures.

It is possible to classify the interests earned under the caption operating cash flows or as investing cash flows and the interests and dividends paid either as operating cash flows or financing cash flows. Sutton (2004) notices that expenditures on research and development can be shown as operating payments even though they are investment outlays in economic terms (Sutton, 2004, p.571).

The allocation of cash flows to the types of activity and the concept of cash adopted follow accounting conventions and practices in use and have implications for the analyses of cash flows statement by users.

3. Regulatory Framework

There are national and international standards for the statement of cash flows. IAS 7 – *Statement of Cash Flows,* the international standard, requires an entity to present a statement of cash flows as an integral part of its primary financial statements[7]. Since 2005, companies listed on EU regulated markets have to prepare their consolidated financial statements according to IAS/IFRS as established by the EC Regulation No. 1606/2002. In some countries for companies which do not have listed shares, domestic regulation was approved about reporting cash flows. This is the case of Portugal[8], Spain[9], USA[10], among others. When comparing the Portuguese financial reporting standard about the statement of cash flows (NCRF 2 – *Norma Contabilística de Relato*

[7] IAS 1 *Presentation of Financial Statements* sets the overall requirements for financial statements, and requires a complete set of financial statements to comprise a statement of financial position, a statement of profit or loss and other comprehensive income, a statement of changes in equity, a statement of cash flows and the notes.

[8] "Since 1993 Portuguese listed companies must disclose a statement of cash flows for the year according to the format prescribed by the Stock Market Authority, who later pushed the Portuguese Accounting Standardization Committee to issue *Directriz Contabilística No. 14* concerning the cash flow statements and provides models for the presentation. It is stated that users of financial statements will be better able to analyze the capacity of the firm, in terms of the timing and certainty of the cash flows it may generate, if they are provided with information that focuses on its financial position, results of operations and changes in financial position." (Ferreira, 2003).

[9] The cash flows statement is not mandatory for companies eligible to prepare their balance sheet, statement of changes in equity and notes in abridged format. The statement states that the dividends paid to shareholders must be considered in the financing activities. (9th Statement of cash flows, §3) It also does not require the companies to disclose the notes of cash and cash equivalents. (10th Notes).

[10] The legislation in force in the USA is the FAS 95 – *Statement of financial accounting standards No. 95*.

Financeiro)[11], to IAS 7, it is concluded that the NCRF 2 is a simplified version of the international standard. One of the main differences between NCRF 2 and IAS 7 is the method used for the dissemination of operational activities. While NCRF 2 requires companies to adopt the direct method (until December 2015[12]), IAS 7 allows companies to opt between methods to use. During the past years, there has been much discussion around this standard and how the companies should make the disclosures in the statement of cash flows[13]. Recently, again the discussion emerged.

According to IAS 7, cash flows are classified and presented into operating activities, which is disclosed using the direct or the indirect method, investing activities or financing activities. Generally, these activities should be disclosed in a gross basis.

Direct versus indirect method

The IAS 7 does not prescribe a format for the statement of cash flows[14] although it recommends the use of the direct method. The format of the statement, regarding the operating activities, the use of the direct or indirect method allows the investor to infer different analysis. The former explains directly the company's ability to generate cash in the company, more specifically, the accounts related with customers, suppliers, and personnel. The latter, known as the indirect method, "whereby profit or loss is adjusted for the effects of transactions of a non-cash nature, deferrals or accruals of past or future operating cash receipts or payments, and items of income or expense associated with investing of financing cash flows." (IAS 7, §7.18.b) Moreover, the indirect method has some limitations such as, it is not possible to identify if the money is paid out

[11] NCRF 2 was approved by Ministerial Order Nr.15666, dated of 7th September 2009, and has been in force for the years 2010 onwards. It is part of the *Sistema de Normalização Contabilística* issued by Decree-Law Nr. 158/2009, of 13th July 2009.

[12] Decree-Law Nr. 98/2015, of 2nd July 2015 will apply for the years 2016 and onwards.

[13] For Disclosure initiative, see <http://www.ifrs.org/Current-Projects/IASB-Projects/Debt-disclosures/Exposure-Draft-December-2014/Documents/ED-Disclosure-Initiative-Amdments-IAS-7-December-2014.pdf>

[14] The cash flow statement was retitled to statement of cash flows on September 6th, 2007 as a consequence of the amendments made to IAS 1 – *Presentation of Financial Statements.*

to suppliers, customers or even personnel. However, the format differs between national standards in force in various countries – FAS 95[15], for instance. In Portugal the use of the direct method is mandatory for companies which apply the NCRF 2 SNC (until December 2015).

Indirect method adjusts the accrual-based income number for non-cash revenues and expenses and for the movement in operating working capital is equivalent to deducting operating outlays from operating expenses (Sutton, 2004, p. 142).

The regulation concerning some specific items of cash flow, an alternative classification may apply. That is the case for dividends, interests, taxes on income, and changes in foreign currency, among others.

Classification of Interests and Dividends

It is worth noticing that financial companies and non-financial companies differ in the way how interests paid and interests received are classified. In financial institutions both interest paid and interests received are part of the operating cycle and thus should be classified as operating cash flows while in non-financial companies these interests can be classified either as OCF, ICF (interests received) or FCF (interests paid) – "alternatively, interest paid and interest and dividends received may be classified as financing cash flows and investing cash flows respectively." (IAS 7, §33)

It may also be the case that there are two activities involved in the same transaction. When a company makes the payment of a specific loan it is dealing with the case where there is payment of interest (operating activity) and debt repayment (financing activities), if the loan is related with the main activity of the company. Nevertheless, companies should not have all of their interest

[15] The main differences are (i) the classification of interest received and paid in the cash flow statement: While under IAS 7 interest received and paid in the cash flow statement may be classified as an operation, investing, or financing activity, under FAS 95 they must be classified as an operating activity; (ii) inclusion of overdraft in cash: under IAS 7 the overdraft is included in cash if they form an integral part of an entity's cash management, while under US FAS 95 the overdraft is excluded from cash balance. The fact that the FAS 95 does not allow choice and requires companies to disclose interest paid and received in operating activities allows a better comparison among entities.

expenses in the same activity unless they are all of the same nature. Let's take for example, the interest paid related to the purchase of inventories as well as interest on the amortization of capital. In this case, there should be a breakdown of the costs of adding interest respectively in the operational activities / finance and investment. Still, it seems that in this example companies should report the interest of the inventory directly in operational activities. But if it was the case of getting a loan for transport equipment then it should be on financing activity. Alternatively, interest expenses could be explained in detail in the accompanying attachments discriminating to which account the interest is related and so it is clearer for the users to understand the statement of cash flows and the movements of cash.

Regarding the dividends paid they may be classified as financing cash flows because they are a cost of an entity to obtain financial resources.

Cash flows generated by interest receipts and interest payments as well as dividends should be presented in the statement of cash flows in a consistent and coherent way from period to period and according to their activity (IAS 7, §31). This is an important issue, considering the comparability of cash flows between different periods, what is a desirable characteristic of the financial information for users doing financial analysis based in cash flow items.

Components of cash and cash equivalents

According with IAS 7, the definition cash and its equivalents is divided in two concepts: (i) cash is composed by cash on hands as well as bank deposits; (ii) cash equivalents are high liquid investments, meaning that, it has a maturity less than three months that can be readily converted to cash without significant risk of changes in value. (IAS 7, §7)

Other disclosures

In many situations it is not possible to identify whether the taxes are related to the financing, investment or operating activities because they occur at different moments when the transaction take place. In this case, taxes should be considered in the operating activities, otherwise where it is possible to clearly identify which activity they belong, then it should be disclosed appropriately.

Concerning the changes in foreign currency, cash flows related to a particular transaction should be recorded in the entity's functional currency by applying the exchange rate between the functional currency and the foreign currency at the transaction date. Gains and losses due to changes in foreign exchange rate are not cash flows. However, the effect of exchange rates on cash and cash equivalents held in a foreign currency should be reported in order to reconcile cash and cash equivalents at the beginning and end of the period. (IAS 7, §28)

As might be expected, given the existence of choices by companies' means that comparability may be affected due to different classification from companies.

4. Literature Review

There are different options regarding the operating activities, however, according to IAS 7 either direct or indirect method may be adopted in the calculation of operating cash flow. In order to have a better perception of the format used in the statement of cash flows in other countries some studies have been developed on the subject, both normative and empirical.

Most authors advocate the use of direct method instead of the indirect method. It is important to balance advantages and disadvantages of using each method, and taking into account the purpose of preparing the financial statements for the investor. Sabău, (2010) argued that the direct method should be mandatory to report operational activities. This conclusion is due to the fact that is the most appropriate and useful method in order to "reduce presentation errors, to improve profits' and operation cash flows' forecasting and to better reflect future performance." (Sabău, 2010: 299) Furthermore, Sorter (1982) apud Yap (2011) stands out by arguing that "if users of financial reporting are interested in predicting cash flows, they are interested in assessing changes that produce a cash impact not in those that do not. The add-back method which focuses on events, such as depreciation, that do not have cash impacts is not useful for this purpose and should not be utilized." (Yap, 2010: 72)

Bahnson et al. (1996) apud by Zhao (2010) analyzed 9,757 published financial statements from Compustat and concluded that there were differences between expected operating cash flows (through the indirect method) and the actual cash flows. This study suggests that the direct method should be used rather than the indirect method in order to obtain better predictions about operating cash flows. More recently, Christine Yap (2011: 71) noticed that some ratios (for instance, the quality of sales) can only be calculated if the direct method is adopted. In addition, and in view of the harmonization between countries, the choice between direct and indirect method should thus be restricted, allowing a better comparison among companies and less diversity in presentation of the statement of cash flows.

On the other hand, a theoretical study (Mahoney *et al.*, 1988 apud Sabău, p. 298) show some advantages of the indirect method, such as (i) a link between the income statement and the balance sheet; (ii) the users of financial statement are more accustomed to using the indirect method; (iii) the cost of preparation is less expensive. In a recent study, Michelli (2009) observed in a sample of companies listed on the Italian stock market all of them present the indirect method for the cash flow from the operating activities. However, there are several ways to use the method, such as beginning with profit before taxes, the net profit or even the profit before interests, dividends and taxes.

To the best of our knowledge there is scarce evidence about reporting cash flow by Portuguese companies, most of the available literature is normative (Caiado, 2014) and describes the Portuguese regulation and how it should be applied. The scope of this Work Project is the Portuguese market since there is still no empirical study on the statement of cash flows on listed entities in Portugal. This Work Project fills the void to provide an insight about cash flow reporting evidence from companies listed in *Euronext* Lisbon.

5. Methodology, Sample and Data

This Work Project analysis the cash flow disclosures of Portuguese listed companies, namely if they are in accordance with IAS 7. The research covers questions of which-type, what-type and how-type concerning cash flow reporting in 2013 and 2014. The following topics are covered:

- *RQ1: Which method do Portuguese listed companies use when reporting operating cash flow?*
- *RQ2: How do Portuguese listed companies classify interest paid, interests received, dividends paid and dividends received when reporting cash flows?*
- *RQ3: What is the composition of cash and cash equivalents of Portuguese listed companies?*
- *RQ4: Which is the quality of income of Portuguese listed companies reporting operating cash flows?*

The research questions cover issues related to the preparation of the report and also to the use of the information. The former comprises questions about compliance with the regulation (RQ 1), accounting choice regarding the interest and dividends disclosures (RQ 2), the composition of cash and cash equivalents and its compulsory disclosures (RQ 3). The latter question about the use of cash flows for analysis are addressed, namely the quality of cash flow is discussed (RQ 4). To help designing the research and to better interpret the results, informal conversations happened with some individuals, including accountants, auditors, and users of financial reporting to realize what they knew about cash flow reporting[16].

The universe of this research is all the companies listed in the *Euronext* Lisbon. The unit of analysis is their consolidated statement of cash flows, together with the corresponding notes, which are part of the obligatory financial reporting. Detailed data from the cash flow items was

[16] The author currently works for a Big Four and had informal conversions with seniors of the company.

collected from the website of the companies and the Portuguese Stock Market Authority, CMVM, (*Comissão do Mercado de Valores Mobiliários)* website. Financial reports of some companies were available on the CMVM´s website and hence the need to resort to the websites of each company when the disclosures were not available. The analysis covers the periods of 2013 and 2014, which are the most recent years for which data is publicly available by the time of the research. Furthermore, by evaluating two years it is possible to analyze the consistency and thus comparability which is a feature of the financial information needed to make financial statement analysis. The consolidated information from all the 47 listed companies was collected, this being the initial sample. However, nine companies were excluded from the final sample, namely banks and other financial institutions (five companies[17]), companies in the football industry (three companies[18]) and PORTUCEL S.A. Banks and other financial institutions were excluded since some specifications of the financial sector did not allow making a conclusive comparison. As for football companies, they use a reporting period that differs from the companies under the analysis and so they were also excluded. After the exclusions, the final sample includes 38 companies. Appendix 1 provides the list of companies in the final sample in this Work Project.

Generally, total cash flow of companies listed in *Euronext* Lisbon in 2014 reduced when compared to 2013. The number of companies with negative total cash flow increased from 18 (47%) to 22 (58%). (Figure 1) Ten companies with a positive total cash flow in the year 2013 show a negative cash flow in 2014, while only six companies with a negative cash flow in 2013

[17] BANIF - BANCO INTERNACIONAL DO FUNCHAL, SA., BANCO BPI, SA., BANCO SANTANDER TOTTA, SA., BANCO COMERCIAL PORTUGUÊS, SA, SOCIEDADE COMERCIAL OREY ANTUNES, SA

[18] SPORT LISBOA E BENFICA - FUTEBOL, SAD, FUTEBOL CLUBE DO PORTO - FUTEBOL, SAD, SPORTING CLUBE DE PORTUGAL - FUTEBOL, SAD

show a cash flow improvement in 2014 (Appendix 3). The operating cash flow of mature firms usually exceeds profit due to depreciation and other non-cash expenses. In fast growing companies operating cash flow is likely to be negative or low, due to large investment in operating working capital and so, in this case, negative operating cash flow is not a necessary a poor indicator (White, 1998).

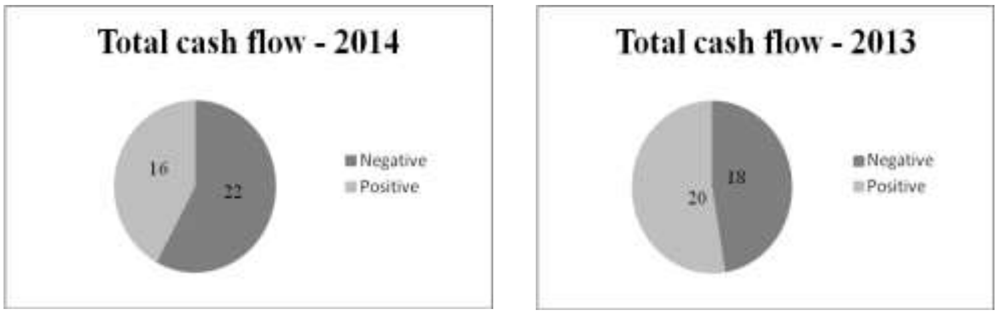

Figure 1 – Sign of the total cash flow from all listed entities

In the two years under analysis, the total cash flows of Portuguese listed companies, there is a huge difference between the maximum and the minimum values of the operating cash flows with average cash flows amounting to EUR 235,417 thousands and EUR 234,323 thousands in 2013 and 2014 respectively (See appendix 5, descriptive statistics). From the set of all analyzed companies they have a total operating cash flow in 2014 amounted to EUR 8,904 million, and there are entities contributing positively for this amount and others with negative values[19]. However, the operating cash flow of EDP - ENERGIAS DE PORTUGAL, SA alone in 2014 amounted to EUR 3,249 million (36% of the total value of operating activities in 2014). Furthermore, the utilities sector generates more cash flows from operating activities than other sectors. Moreover, the utilities sector is also the one that presents the lowest values of cash flows from financing and investment activities. The total amount of financing activities for all sectors is negative in both

[19] Companies with a negative operating cash flow – MARTIFER – SGPS, SA., NOVABASE - SGPS, SA., COMPTA-EQUIPAMENTOS E SERVIÇOS DE INFORMÁTICA, SA., LISGRÁFICA-IMPRESSÃO E ARTES GRÁFICAS, SA., TOYOTA CAETANO PORTUGAL, SA., VAA – VISTA ALEGRE ATLANTIS - SGPS, SA.

years (table 2); this means that, as stated in section 2, the company raises capital from outside, through borrowing or by issuing shares leading to a negative financing cash flow.

Regarding the investing activities it is related to cash flows with providers of non-current assets, such as properties, and other investments with a maturity higher than three months and is negative in both years (table 2).

Unit: thousands of euros	**2013**	**2014**
Cash flow from investing activities	(4,451,047)	(2,030,267)
Cash flow from financing activities	(3,924,047)	(6,628,970)

Table 2 – The total sum by activity

The industrial sector is the one that has more companies (11), but the utilities sector is the one that generates more operating cash flows although it is composed only by three companies[20]. Appendix 3 shows the changes that cash flows from the operating activities suffered from 2013 and 2014.

The consumer services sector is the one that generates the highest level of income in 2014, which includes services rendered and sales. However, it is important to mention that the oil and gas industry consists of a single company[21] but generates almost as much as the consumer services sector in 2014. A possible explanation for this is due to the fact that the costs are very high for new entrants.

[20] EDP RENOVÁVEIS, SA; REN - REDES ENERGÉTICAS NACIONAIS, SGPS, SA; EDP - ENERGIAS DE PORTUGAL, SA.
[21] GALP ENERGIA, SA

Unit: thousands of euros		2013			2014		
Sector	**#Companies**	**Revenues**	**Operating CF**		**Revenues**	**Operating CF**	
Basic Materials	3	2,972,251	334,929	4%	3,035,620	462,700	5%
Consumer Goods	3	844,163	114,214	1%	871,038	100,084	1%
Consumer Services	9	18,832,212	1,600,672	18%	20,319,869	1,726,308	19%
Financials	1	135,868	9,135	0%	177,965	29,834	0%
Health Care	1	371,051	62,652	1%	399,315	18,152	0%
Industrials	11	9,378,603	956,309	11%	9,405,758	1,175,962	13%
Oil & Gas	1	19,622,251	801,776	9%	18,020,994	779.747	9%
Technology	4	441,308	26,615	0%	451,481	6,375	0%
Telecommunications	2	2,687,979	801,644	9%	2,807,596	783,274	9%
Utilities	3	3,157,602	4,237,891	47%	3,353,425	3,821,834	43%
Total	**38**	**58,443,288**	**8,945,838**	**100%**	**58,843,062**	**8,904,270**	**100%**

Table 1 – The total sum by industry

6. Results

Disclosure format of operating cash flows (RQ 1)

As mentioned in section 3, IAS 7 suggests but does not require that cash flows from operating activities should be released by the direct method.

	2013		2014	
Method	**# Entities**	**%**	**# Entities**	**%**
Indirect method	3	8%	3	8%
Direct method	35	92%	35	92%
Total	**38**	**100%**	**38**	**100%**

Table 3 – Method used to estimate and present the operating cash flows

Although most of the Portuguese listed companies chose the direct method to present the operating cash flow – 92% of them (35 companies) adopted the direct method, 8% of them (3[22] companies) used the indirect method. Note that the direct method is the only method authorized by the Portuguese regulation (NCRF 2) and this may be the reason for the choice, as the listed companies are presenting consolidated accounts together with domestic companies reporting according to SNC. Moreover, from the investors' perspective, the direct method seems more

[22] The companies which adopted the indirect format are EDP RENOVÁVEIS, SA., IBERSOL - SGPS, SA., SAG GEST - SOLUÇÕES AUTOMÓVEL GLOBAIS, SGPS, SA.

intuitive, since it allows a clear understanding of how the receipts are made from customers and payments to suppliers, and other stakeholders such as employees and the state. The use of the direct method is actually the most informative from the investor's perspective, according to Bahnson et al (1996) and also the recommendation of IAS 7.

A possible cause for the minority use of indirect method can be the fact that the company in the past has used the indirect method and so they are required to maintain the same method due to issues of consistency and comparability. We do not know if companies prepare the statement manually or through software, and may be the software is the cause for the choice.

It is worth noticing that all the companies use the same method of reporting operating cash flows from one period to another. This is good for financial statement analysis based in cash flows statements, as users can compare financial statements from period to period. Moreover, Yap (2011) also recalls that certain ratios can only be measured through this method.

Classification of interests and dividends (RQ 2.)

Being the ultimate goal of the presentation of the statement of cash flows giving to users a detailed justification for the use of cash and cash equivalents and not forgetting that companies should maintain the same method from period to period in order to allow comparison there is evidence that companies disclose the aggregate spending with interest only in a particular activity. Table 4 resumes how companies listed in *Euronext* Lisbon classified interests and dividends, received and paid respectively in the statement of cash flows.

	Operating CF		Financing CF		Investing CF		Total
	# companies	%	# companies	%	# companies	%	# companies
Interests paid	2	5%	36	92%	1	3%	39
Dividends paid	0	0%	24	96%	1	4%	25
Interests received	0	0%	5	14%	30	86%	35
Dividends received	0	0%	0	0%	21	100%	21

Table 4 – Classification of cash flows (2014)

In what concerns the **interest paid**, 36 companies (92%) present the interest paid under caption cash flows from financing activities. Only three companies adopt a different presentation and grouping: while JERÓNIMO MARTINS, and SAG GEST - SOLUÇÕES AUTOMÓVEL GLOBAIS, SGPS, SA include interest expenses under operating activities[23], as it is prescribed in FAS 95. LISGRÁFICA-IMPRESSÃO E ARTES GRÁFICAS, SA classifies the interest paid as cash flow from investing activities. It should be reported in this area and not in operating in order to realize what obligations the company has in investing activities (for instance, interests on equity). These results for Portugal differ from what Mechelli (2009) found in Italian companies, where interest paid were classified in operating activities (33.7%) or do not classify in any of the activities (62.4%). Regarding the presentation of **interest received** by companies and according to IAS 7 (§33) interest received may be classified as operating activities since it enters in the determination of the profit or loss of the company. Alternatively, as in the case of companies under analysis, they can consider interest received as the investment or financing activity. However, most of them (30) present it as a financing cash flow. There are two different cases[24] in our sample that make a division of the interest received from the investment and financing activities. A special case is the case of REDITUS, SA since it shows the interest received as an outflow (negative value) and it was possible to conclude that it is an error in the disclosure in the statement of cash flows. In respect of **dividends received** uniformity in presentation is observed (table 4), as all the companies classify the item as a cash flow from the investing activity. This may relates to the fact that many of these have participations in other companies and so all of them reported in the investment activity as normal since dividends received are attached to

[23] The reason for this exception may be that interest expenses incurred by JERÓNIMO MARTINS relates to operating activities is that although it is a counterpart from financing or investing activities, it should be reported in operations since the purpose is, for instance, the funding obtained for financing the main activities of the company and so it should be disclosed in the operational activity.

[24] GALP ENERGIA SGPS, SA. and REN - REDES ENERGÉTICAS NACIONAIS, SGPS, SA

holdings that local company holds over others, and therefore is considered an investment. Moreover, since the sample focuses on the consolidated accounts and these have subsidiaries and associated companies, it turns out that from the thirty-eight entities analyzed only twenty-one received dividends. Concerning **dividends paid**, all companies with the exception of GLINTT report dividends paid in financing activity (table 4). The research developed for the Italian companies (Mechelli, 2009) found that all companies report the dividends in financing activity as Portuguese entities, as it should be. That said, we can say that the fact that GLINTT - GLOBAL INTELLIGENT TECHNOLOGIES, SA have reported in investment activity it is an exception.

Composition of cash and cash equivalents (RQ 3)

As mentioned in section 2, the definition of cash adopted in the cash flow statement is broader and includes cash on hand, deposits and cash equivalents (short-term investments).

Companies are required to disclose a specific note about cash and cash equivalents items, namely they should present a reconciliation of the amounts in its statement of cash flows. (IAS 7, §45) Although required by law, the note with disclosure of cash equivalents was not observed in seven companies (18% of companies in 2014) and so do not comply with the regulation. However, it is important to note that all of them disclose an explanation for the reconciliation of cash and cash equivalents, but the cross reference to a particular note does not exist in the face of the statement of cash flow. This non-compliance with the IAS 7 makes difficult to read the report and affects the understandability the contents of the statement.

Units: thousands of euros	**2013**	**2014**
Cash	63,982	89,873
Bank deposits	6,463,579	6,717,289
Other short-term investments	1,352,705	1,512,618
Bank overdrafts	(316,840)	(271,150)
Total	**7,563,426**	**8,048,630**

Table 5 – Composition of the cash and cash equivalents

Through the cash reconciliation and cash equivalents we can conclude that this balance is mostly composed by cash in a narrow sense, that is bank deposits, cash on hand and other highly liquid short-term investments. Table 5 shows that no major changes in the composition of cash and cash equivalents occurred from 2013 to 2014. As expected, most of the money that the company has is allocated to the bank deposits or in investments with maturity less than three months.

Bank overdrafts[25] are not explicit in the statement of cash flows, contrary to the case of "changes in the consolidated perimeter" and "exchange differences effect on cash and equivalents." In this case, bank overdrafts are shown in the attached cash and cash equivalents note.

The total amount of bank overdrafts decreased from about 14% from 2013 to 2014. However, an analysis was carried out to understand the impact of bank overdrafts in the statement of cash flows. An extremely interesting point corroborated by the data collected is that companies which present short-term investments do not have bank overdrafts. The former is an indicator of excess liquidity and then invest that excess temporarily, while the latter means that companies with bank overdrafts[26] do not have enough liquidity and so they take debt in the short term.

There is consistency concerning that when bank overdrafts are observed in companies in 2013, it is concluded that the same companies also shows a bank overdrafts in 2014, with the exception of CIMPOR – CIMENTOS DE PORTUGAL, SGPS, SA that changed from bank overdraft in 2013 to a cash surplus in 2014.

[25] Bank overdrafts happen when a certain company makes transactions in an account for an amount that exceeds what it has available. As an example, the execution of a bank guarantee from a supplier. In this case, and as the name implies a guarantee, the company could not be expected of this execution and due to it do not have enough cash in that account to be able to cover the amount of the guarantee being thus the account overdrawn.

[26] SONAE, SONAE CAPITAL, IBERSOL, SUMOL+COMPAL, SONAECOM, ESTORIL SOL.

Other disclosures: Effect of foreign currency

As mentioned in section 2, the exchange rate gains should be recognized at the exchange rate at the time of the transaction. However, these cash flows are considered non-cash transactions as they do not involve cash. As this line consists of transactions between countries outside the Eurozone, we can see that in the sample there are 23 (2014) companies that make this type of transaction. However, consider the case where companies have interests abroad such as GALP ENERGIA SGPS and JERÓNIMO MARTINS. This line in the statement of cash flows, there may be a gain or loss associated with the appreciation / depreciation of the exchange rate.

Quality of income by sector in the Portuguese listed companies (RQ 4.)

The quality of income ratio measures the ability of a company to generate cash through the operating cash flows[27]. "The quality of income ratio is intended to provide an indication of the variance between cash flows and reported earnings. Reported earnings in many cases, include income, such as installment sales or expenses, such as depreciation, which do not have a current cash impact. Such non cash transactions can result in substantial differences between cash flows and earnings, which are highlighted by abnormal deviations over the time." (Carslaw, Mills,1991: 68) The quality of income ratio shows huge differences between the two years under analysis[28]. The industrial sector shows the highest value of quality of income ratio in both years (appendix 7) and this value is justified by CIMPOR - CIMENTOS DE PORTUGAL, SGPS with a ratio of 18.53 in 2014. It should be noted that the way interest is reported (as operating or financing cash flows) has a major impact on the calculation of the quality of income. If they are disclosed in the operational activity the quality of income will be higher. Conversely if it is disclosed in the

[27] To be greater than one means that generates more cash than net income.

[28] This justified by the TOYOTA CAETANO PORTUGAL, SA which has a quality income ratio of (6,394). This value is explained by the fact that TOYOTA suffered a loss of EUR (2,416) but it generated positive operating cash flows which amounts to EUR 15,448,898.

financing or investing activity the quality of income will be lower. So, this ratio is sensitive to accounting choice concerning the classification of interests either as operating or financing cash flows. Thus, there is no harmonization and limits the analysis and comparability between companies.

7. Conclusion

Based on consolidated financial reports of companies listed in *Euronext* Lisbon for the years 2013 and 2014, this Work Project analyses the statements of cash flows and cash flow disclosures, namely if they are in accordance with *International Accounting Standards 7*, specifically the accounting choices concerning the format and the classification of interest and dividends paid and received and the obligatory notes about the composition of cash and cash equivalents. Additionally, quality of income ratio was analyzed due to its importance for users of financial statements. The results revealed evidence of uniformity in the use of the direct method to report operating activities, but there were some differences regarding the disclosure of interests and dividends paid and received, respectively. However, consistency was observed from one period to another which is an important point for financial statement analysis.

To the best of our knowledge, this is the first empirical study of the cash flow statements for the Portuguese listed companies for the years 2013 and 2014, an exploratory analysis was made and it was possible to draw some conclusions that lead to different outcomes for users of financial statements. It was found that most companies adopt the direct method (92%) and it allows to understand the inflows and outflows of cash purged of items that are not considered cash (such as depreciation). Concerning interest paid and interests received, most of the companies disclose in investment and financing activities, in contrast to what happens in the US where interests must be disclosed in the operating activities.

In our opinion, IAS7 should require companies to disclose these items in a particular activity in a consistent manner or disclose a reconciliation of interest in order to have a better understanding in the movements of cash. Moreover, IAS 7 should detail how companies make the statement of cash flows in view of the harmonization among countries which may lead to a greater transparency and comparability. A limitation of the research is the fact that we did not include in the analysis financial institutions, since they have a very specific regulation and the football clubs due to different reporting period. Once the banking sector is crucial in the economy, understanding the specificity of the standards and cash flow reporting by financial institutions could be a relevant topic for future research. Adding more periods to the analysis will contribute to better understand how companies have followed the evolution of the standard. Additionally, interviews and questionaries' to managers of the companies may be made to know if they consider the statement of cash flows an important tool for the investor and whether they would be willing to share more detailed information.

References

Barac, Zeljana. 2012. "Voluntary disclosure of cash flows information and company's characteristics: evidence from Croatian capital market." *Croatian Operational Research Review (CRORR)*, 3.

Caiado, António and Primavera Gil. 2014. *Demonstração de Fluxos de Caixa*, 2nd Edition, Áreas Editora.

Carslaw, Charles, and John Mills. 1991. "Developing ratios for effective cash flow statement analysis." *Journal of Accountancy*, 172 (5): 61.

European Commission. "*Document of the accounting advisory forum – Cash Flow Statements.*" http://ec.europa.eu/internal_market/accounting/docs/markt-1994-6008/6008_en.pdf (accessed on October 8, 2015).

European Commission. 2010. "*International Accounting Standard 7 – Statement of cash flows.*" http://ec.europa.eu/internal_market/accounting/docs/consolidated/ias7_en.pdf (accessed on July 15, 2015).

Ferreira, Leonor. 2003. "Accounting in Portugal" in *Miller's European Accounting Guide*. Alexander, David and Simon Archer (eds), 5ª ed., Aspen Publishers, Inc. 12.01-12.83. New York.

Financial Accounting Standards Board. 1987. "*Statement of Financial Accounting Standard*s – *SFAS 95.*" http://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1218220128261&acceptedDisclaimer=true (accessed on November 5, 2015)

Flower, John and Gabi Ebbers. 2002. *Global Financial Reporting*, Palgrave, New York

Holt, Graham. 2014. *"Cash equivalents or not cash..."*

http://www.accaglobal.com/hk/en/discover/cpd-articles/corporate-reporting/cash-equivalents.html (accessed on July 20, 2015).
Hughes, M., and S. Hoy, and B. Andrew. 2010. "Cash flows: The Gap Between Reported and Estimated Operating Cash Flow Elements." *Australasian Accounting, Business and Finance Journal,* 4(1): 96-114. http://ro.uow.edu.au/aabfj/vol4/iss1/6/ (accessed on November 15, 2015).
IAS Plus. "*Statement of cash flows: Key differences between U.S. GAAP and IFRSs.*" http://www.iasplus.com/en-us/standards/ifrs-usgaap/cashflows (accessed on October 8, 2015).
IAS Plus. 2013. "*IAS 7 — Interest paid that is capitalized.*" http://www.iasplus.com/en/meeting-notes/ifrs-ic/2013/ifric-meeting-march-2013/ias-7-capitalised-interest (accessed on July 17, 2015).
International Financial Reporting Standards. 2013. "*The IASB decided not to finalise the proposed amendment April 2013.*" http://www.ifrs.org/Current-Projects/IASB-Projects/ias-7-capitalised-interest/Project-news/Pages/IASB-decided-not-to-finalise-the-proposed-amendment-April-2013.aspx (accessed on July 20, 2015).
International Financial Reporting Standards. 2014. "*Disclosure Initiative – proposed amendments to IAS 7.*" http://www.ifrs.org/Current-Projects/IASB-Projects/Debt-disclosures/Exposure-Draft-December-2014/Documents/ED-Disclosure-Initiative-Amdments-IAS-7-December-2014.pdf (accessed on July 15, 2015).
Jeffrey, Hales, and Steven Orpurt. 2013. "A Review of Academic Research on the Reporting of Cash Flows from Operations." *Accounting Horizons*, 27(3): 539-578.
Leuz, Christian. 2000. "The Development of voluntary cash flows statements in Germany and the influence of international reporting standards." *Schamalenbach Business Review*, 52: 182-207. http://faculty.chicagobooth.edu/christian.leuz/research/papers/Development-of-Voluntary-Cash-Flow-Statements-in-Germany-and-the-Influence-of-International-Reporting-Standards.pdf (accessed on November 5, 2015)
Luis Bento. 2012. "Fluxos de Caixa em SNC", *Revista TOC*, 153: 50-56.
Mechelli, Alessandro. 2009. "Accounting Harmonization and Compliance in Applying IASB Standards: An Empirical Survey about the First Time Adoption of IAS 7 by Italian Listed Groups." *Accounting in Europe*, 6(2): 231–270.
Sabau, Lucian. 2010. "*Empirical study concerning the views on the format of cash flow statements.*" http://fse.tibiscus.ro/anale/Lucrari2012_2/AnaleFSE_2012_2_044.pdf (accessed on October 25, 2015).
Silva, Eduardo, and Carlos Martins. 2012. *Demonstração de fluxos de caixa.* Vida Económica, Porto [available online at https://books.google.co.uk/books?id=yCcpAwAAQBAJ&pg=PA140&lpg=PA140&dq=NCRF+2+VS+IAS7&source=bl&ots=z4nHJYq5Zq&sig=3A3htHFONiE31ZdCQGekAkcfAd4&hl=pt-PT&sa=X&ved=0CCYQ6AEwAWoVChMInYmIrv6yyAIVx-wUCh1vvwlA#v=onepage&q=NCRF%202%20VS%20IAS7&f=false (accessed on October 8, 2015).
Sutton, Tim. 2004. *Corporate Financial Accounting and Reporting*, 2nd Edition, Prentice Hall, Harlow.
Yap, Christine. 2011. "International Harmonisation of Accounting Standards: The Case For A Mandatory Requirement For The Direct Method of Reporting Operating Cash Flows." *International Business & Economics Research Journal*, 3(3): 67-80. http://www.cluteinstitute.com/ojs/index.php/IBER/article/viewFile/3673/3717 (accessed on October 21, 2015).
Zhao, Lijuan, and El-Hussein El-Masry. 2013. "Assessing the Ability of the Direct Method Format of the Statement of Cash Flows to Boost Financial Analysts Judgment Accuracy." *The Journal of Human Resource and Adult Learning*, 9(2): 1-7.
Zhao, Lijuan. 2013. "Does the Presentation Format of the Statement of Cash Flows Affect Analysts' Cash Flow Forecast." *The Journal of International Management Studies,* 8(2): 49-53. http://www.jimsjournal.org/7%20Lijuan%20Zhao.pdf (accessed on November 15, 2015).
White, Gerald, and Ashwinpaul Sondhi, and Dov Fried. 1998. *The analysis and use of financial statements*. 2nd Edition, John Wiley, New York.