



# Disclosure requirements and voluntarily reporting of cash flow information in Greece

Cash flow  
information in  
Greece

685

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## Abstract

**Purpose** – To review the disclosure requirements for cash flow reporting in Greece and the willingness of Greek companies to voluntarily disclose cash flow information.

**Design/methodology/approach** – The empirical research was conducted on a sample of 97 Greek firms listed in the Athens Stock Exchange by examining the relation between cash flows and other measures of profitability for year 1994 when IAS No. 7 was set in effect.

**Findings** – The results show that despite the fact that cash flows are more informative than an accruals definition of profits, in deciding about financial policy issues Greek companies show an increased preference to funds flows defined in terms of working capital.

**Practical implications** – The publication of a cash flow statement may reveal that many listed companies in Greece are not as robust as the balance sheet and the income statement potentially indicates. Thus, the main conclusion of the paper is that publication of the cash flow statement in Greece should become mandatory.

**Originality/value** – The present study shows that, despite the desire of the regulatory authorities that investors receive adequate and relevant information, voluntarily cash flow disclosure is not apparent in Greece because cash flows reveal financial problems that other measures of performance do not. Thus, it provides directions for standard setters in making mandatory the publication of cash flow statement in Greece.

**Keywords** Cash flow, Financial reporting, Disclosure, Greece

**Paper type** Research paper

## 1. Introduction

A large body of accounting research deals with the incentives of firms to voluntarily disclose financial information. Although many financial disclosures are mandatory in practice, it has long been recognized that investors, needs for information are not completely satisfied by mandatory disclosures. In this context, many accounting researchers have investigated whether firms have incentives to provide further information in the absence of regulation.

It appears, however, that in countries where financial disclosure is highly regulated and dominated by tax regimes, and where capital markets are small in size, voluntarily disclosure by private firms is very rare. (Street and Gray, 2002)

The present study takes this line of inquiry and examines voluntarily cash flow reporting in Greece. The cash flow statement (CFS) is an important element of the annual report and cash flow reporting is mandatory in many countries. Until fiscal year 2000, however, its disclosure has not been compulsory in Greece. Ever since fiscal year 2000 the minimum disclosure requirements for cash flow reporting in Greece are that listed firms should prepare a CFS and deliver it to the Hellenic Capital Market Commission (HCMC). No requirements are set for non-listed firms and for the



publication of the statement in the financial press or in other sources of investors information.

The present paper examines voluntarily cash flow reporting by Greek listed firms. In particular, the paper examines the evolution of cash flow disclosure requirements in Greece and other more developed countries. An empirical research conducted for a sample of 97 Greek firms listed in the Athens Stock Exchange (ASE) reveals that firms in Greece taken into account cash flow information when formulating business policy, however, they are not willing to make this information publicly available. Moreover, the results show that Greek firms along with changes in cash, are also concerned with changes in working capital and thus, a statement of fund flows could also be an element of voluntarily disclosure that would help investors to appreciate the financial condition of Greek firms. Finally, the paper urges Greek accounting regulatory bodies to take another point of view: instead of setting minimum disclosure requirements to provide incentives for voluntarily disclosures of information that is relevant to investors and other interested parties.

## 2. Background

Many studies in accounting have provided evidence on the relationship between accounting earnings and various definitions of cash flows in order to assess the information content of the latter (i.e. Bowen *et al.*, 1986, 1987; Arnold *et al.*, 1991; Lawson, 1992; Lee, 1993), while others have suggested a number of decision contexts in which cash flow information is important (i.e. Charitou and Ketz, 1991; Jones *et al.*, 1995; Gombola *et al.*, 1987; Arnold *et al.*, 1991; Chan *et al.*, 1991). All of these studies have been conducted in countries with cash flow disclosure requirements (USA, UK and Australia) and most of data sets consist of either published financial statements or responds to questionnaires addressed to users of financial information.

However, in countries with no or little cash flow disclosure requirements, evidence on the usefulness of cash flow information is very limited. Especially in Greece, with the exception of the seminal work by Charitou and Venieris (1992) who report on the usefulness of cash flow in predicting business failures, evidence on the information content of cash, flow figures is undoubtedly missing. Of course, before the imputation of the Greek General Accounting Plan in 1987, many academics in Greece urged the regulatory bodies to include a "statement of changes in the financial position" in the set of published financial statements. Unfortunately, these attempts did not flourish and discussions on the CFS became simply a topic in the accounting courses at the Greek Business Schools.

Cash flow reporting was first regulated in Greece by IAS No. 7: CFS which became effective in 1994, as an element of voluntary disclosure and mandated in 2002 as a supplementary element of the annual report of publicly traded companies. Under IAS No. 7 a company should report its cash flows from operating investing and financing activities in a manner, which is most appropriate to its business. Classification by activity provides information that allows users to assess the impact of those activities on the financial position of the enterprise and the amount of its cash and cash equivalents. This information may also be used to evaluate the relationships among those activities.

A single transaction may include cash flows that are classified differently. For example, when the cash repayment of a loan includes both interest and capital, the interest element may be classified as an operating activity and the capital element is classified as a financing activity (International Accounting Standard 7, 1998, p. 43).

In terms of disclosure requirements, Greek companies have to prepare a CFS and report it, to the HCMC. They are not required to publish the CFS in the financial press, as applies for the balance sheet and the income statement. Thus, an investor wishing to obtain the CFS of a Greek listed firm should apply to the HCMC or to the finance department of the company itself. Therefore, although cash flow reporting in Greece has become mandatory, the availability of cash flow information to investors remains still a matter of voluntary disclosure. On practical grounds this statement is justified by the fact that since 1994 only few listed companies in Greece have voluntarily reported CFSs and made these statement publicly available.

### 3. The precedents of IAS No. 7

The requirement for adjusting published financial statements in order to provide more relevant information on sources and applications of funds has been formally established in Britain by SSAP 10 (ASC, 1975). However, in the USA, individual companies, had long and well recognized the need for reporting flows of funds. In order to provide users with a more complete picture of their resource flows over an accounting period, several US companies in the 1950s started to include a statement of sources and applications of funds in their annual reports. This statement consisted of various forms and was termed under the general-heading-of funds statement.

This experimentation caused concern for the AIPCA, which was prompted into commissioning a research study on cash flow analysis and the funds statement. It is quite clear from the director's preface that the AIPCA saw "the increased use of the statement of source and application of funds and the recent emergence of an amorphous concept known as cash flow" as a threat to the presentation of the accrual basis of accounting.

The publication of this study urged the Accounting Principles Board to issue in 1963 its Opinion No. 3 – The statement of sources and applications of funds – which encouraged (but did not require) the presentation of a funds statement. This was the first official pronouncement on the funds statements to be issued by a major accounting body, and it received a wide support from the major stock exchanges and the business community in the USA. The result was a significant increase in the inclusion of such statements in US company annual reports, and in 1970 the SEC made the funds statement an obligatory element of financial statement filing.

In 1971, APB Opinion No. 3 was superseded by APB Opinion No. 19, which required that among the existing (at that time) financial statements purporting to present both financial position and results of operations, a "statement summarizing changes in financial position should also be presented as a basic financial statement for each period for which an income statement is presented".

In contrast to the developments evidenced in the USA, in the UK there was a much slower acceptance of the view that the funds statement should be presented as a complementary statement to the balance sheet and the profit and loss account. Prior to the 1970s, there was relatively little evidence of British companies publishing funds statements; and whilst in the USA and Canada emphasis was given on revealing the most useful form and content of the funds statement, UK companies were still trying to answer the question as to whether a funds statement had to be included in their annual reports. It was not until ED 13, issued in April 1974, that the ASC offered some guidance on the subject. ED 13 resulted finally to the publication of SSAP 10 in July 1975, which was oriented towards establishing "the practice of providing source and

application of funds statements as a part of audited accounts and... (laying down) a minimum standard of disclosure in such statements”<sup>2</sup> (SSAP10).

In the light of a world-wide trend which reflected the preference of e-business community towards a cash flow rather than a funds flow statement, several standard-setting bodies re-examined the nature and the objectives of SSAP 10 and concluded that the statement imposed by SSAP 10 should focus on flows of cash instead of flows of working capital or some other concept of funds.

The most recent developments in this area include the release of SFAS 95 in 1987 in the USA and of FRED 10 in 1996 in the UK. The former “establishes standards for providing a statement of cash flows in the general-purpose financial statements”. This statement supersedes APB Opinion No.19, *Reporting Changes in Financial Position*, and requires that companies should provide a statement of cash flows in place of a statement of changes in financial position. An additional requirement is that specified information about non-cash investments and financing transactions and other events should be provided separately. Moreover, in September 1991 the Accounting Standards Board (1991) (ASB) in the UK published FRS 1 which superseded SSAP 10 and which required that reporting entities should prepare an altered form of the US CFS (CFS henceforth) instead of the SSAP 10 funds flow statement (FFS henceforth). This trend is also apparent in the IASC revision of IAS 7 in 1992 which requires enterprises to prepare CFSs instead of statement of changes in financial position. Finally, in 1995 the Accounting Standards Board (1995) issued FRED 10 which is merely a revision of FRS 1 including proposals developed in the light of the comments received on the functioning of the FRS 1 since its publication in 1991.

Although, the need for cash flow reporting is universally acknowledged and many countries reveal increased interest in adopting reporting procedures, the development of cash flow reporting has mainly been evolved in the USA and the UK; exposition of legal requirements for cash flow reporting in other countries (Le. Australia AASB 1026, New Zealand SSAP 10, South Africa AC 118 etc.) clearly shows the influential role of the findings and the innovations reported in the USA and the UK.

However, the practice of cash flow reporting in the USA and the UK, as currently amended by FRED 10 and SFAS 95, despite the common orientation, does not lack differences. In this context, it would be interesting to compare the two standards in order to expose any differences and similarities. This can easily be done by simply going through their rules.

The main difference between FRED 10 and SFAS 95 lies in the categorization of cash flows. In particular, FRED 10 requires standard headings for: operating activities, returns on investments and servicing of finance, taxation, capital expenditure, acquisition and disposals, dividends paid, “management of liquid resources” and financing. In contrast, SFAS 95 requires categorization of cash flows under three general headings: operating activities, investing activities and financing activities.

In any event, in the USA a company must disclose its policy for determining cash equivalents. Any change to that policy is considered to be as a change in accounting principles requiring restatement of comparative financial statements. Under FRED 10 the term “cash equivalents” has completely been abandoned.

Items characterized by quick turnover, large amounts and short maturities may be disclosed net rather than gross under the provisions of SFAS 95 for the net disclosure of movements in certain items. There is no such provision explicit or implicit in FRED 10.

SFAS 95 requires that cash flows from foreign operations are translated using the exchange rate in effect at the time of the cash flow (re. the historical or the actual rate). The approach proposed by FRED 10 is, however, quite different. The latter requires that the same rate used in translating the results of the foreign operations should also be used for the translation of cash flows from foreign operations.

FRED 10 requires all material transactions not resulting in movements of cash but nevertheless altering the company's financial position to be disclosed. However, under SFAS 95 only the information about non-cash investing and financing activities has to be given.

Under the indirect method of presentation, FRED 10 requires the reconciliation of operating profit to cash flow from operating activities to be given in a note, whereas SFAS 95 allows the reconciliation to be given either as a note or actually on the face of the CFS.

The requirement of FRED 10 that the CFS should contain detail on the effects of the acquisition or disposal of a subsidiary has no equivalent in SFAS 95.

SFAS 95 (as amended by SFAS 104) permits cash flows relating to certain hedges to be classified along with the cash flows from the item being hedged. This approach allows only for a narrow number of derivatives (futures, forwards, swaps and option contracts) to be treated as hedges. FRED 10, on the other hand, appears to apply to a wider range of hedging instruments and appears to require the classification of the hedging cash flows with the cash flows of the hedged instrument rather than according to the nature of the hedging instrument.

#### 4. General features of the CFS

"Historical cash flow information may assist users of financial statement in making judgments on the amount, timing and degree of certainty of future cash flows; it gives an indication of the relationship between profitability and cash generating ability and thus of the quality of the profit earned. In addition, analysts and other users of financial information often, formally or informally, develop models "to assess and compare the present value of the future cash flows of entities. Historical cash flow information could be useful to check the accuracy of past assessments and indicate the relationship between the entity's activities and its receipts and payments. The CFS in conjunction with the balance sheet provides information on liquidity, viability and financial adaptability"<sup>4</sup>. (FRS1) An analyst wishing to make an assessment of future cash flows should normally use CFSs in conjunction not only with the balance sheet but also with the profit and loss account.

It is noteworthy that the great bulk of academics and practitioners, that have been reporting their opinions upon CFSs, agree at least, on the information content and usefulness of CFSs.

The statement of principles of the ASB draws on the conceptual framework project of the US Financial Accounting Standards Board (FASB). The conceptual framework project in particular developed the following desirable "qualitative characteristics of accounting information" under the financial accounting concepts statement No. 2, of May 1980 (see Figure 1).

Arguably, the relevant literature provides ample evidence that the CFS satisfies the above qualitative characteristics. In addition, the CFS provides information on company's ability to distribute dividends without risking its financial position. It is widely known that reporting entities are allowed to make payments of dividends on the strength of net profit after tax and extraordinary items, that is a company is

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Users of  
Accounting  
Information

Decision makers  
and their characteristics  
(i.e. understanding or prior  
knowledge)

Pervasive  
Constraint

Benefits > Costs

User Specific  
Qualities

Understandability

Decision Usefulness

Primary  
Decision Specific  
Qualities

Relevance

Reliability

Timeliness

Verifiability

Representational  
Faithfulness

Ingredient  
of

Predictive  
Value

Feedback  
Value

Primary  
Qualities

Secondary and  
Neutrality  
Interactive Qualities

Comparability  
(including consistency)

Neutrality

**Figure 1.**  
A hierarchy of accounting  
qualities

Threshold for  
Recognition

Materiality

permitted to pay cash dividends on accrual based profits even though it may not have generated sufficient cash from operations to cover such dividends. Before the advent of CFSs, it was not always easy to determine from a company's FFS whether it had generated sufficient cash to cover its dividend payment. Since the official application of CFSs this information is highlighted in company's CFS. The importance of such information has been proved by recent corporate failures where it was evident, inter alia, that companies had been unable to convert profits into cash and yet had maintained or even increased the payment of cash dividends

The CFS combined with the rest of the economic statements of an enterprise gives information that aloud to evaluate the changes to its net assets, its financial structure, and its ability to influence the amount and the time of cash flow that occurs. Additionally, CFS increases the ability of a user to compare different companies and to reach useful conclusions.

In particular, the CFS assists its user to identify the following about a reporting entity's financial viability:

- (1) Is the company managing to increase the net cash inflow from its operating activities? This is to review whether the company has shown itself able to increase the cash it is generating from its operating activities and, if so, by how much. Once the overall variation in net cash flow has been established the next step is to seek an explanation for any change.
- (2) Is the company able to fund comfortably its level of dividend payments? A lot of companies traditionally distribute a high proportion of their profits for the financial year to shareholders. However, in recession organizations may find their cash flow declining to such an extent that management needs to revise the company's dividend policy. In UK in the 1990s, much discussion took place as to whether organizations had sufficient cash to maintain dividend payments at the levels built up during the periods of high growth and profits. For a company whose cash flow is under pressure (i.e. Pilkington PLC, 1992) dividend payments may represent a further and unacceptable drain on a company's resources. The extent to which a company can afford to make dividend payments in relation to the cash flow should be reviewed; such a revision can be achieved through a CFS.
- (3) How much cash is being used to service debt? Any debt a company has undertaken will require servicing in respect of interest payments. Companies which operate with high levels of debt, or have not structured their borrowings to achieved the most advantageous interest rate terms, may find a significant proportion of their cash generating ability being used to service debt. Hence, both the level and cost of debt are important considerations in assessing the extent to which servicing of finance may represent a disproportionate drain on a company's cash resources.
- (4) What has happened to the company's spending on fixed assets? The level of capital spending can be ascertained from the CFS. Looking at the figures over a number of years enables the user to consider whether capital spending is rising or falling, and at what rate. If a company has cash flow problems, capital spending may be curtailed. As companies can survive in the short term without replacing equipment there may be a temptation to mortgage the future for the present if cash is in short supply. This is not a strategy, which can be

indefinitely sustained without undermining – the company's competitive position, which in turn will have an effect on company's share market price.

- (5) How important has the disposal of fixed assets and/or business been in terms of generating funds? In addition to cash from operating activities, companies may raise cash from disposing of assets. Such disposals may be managed in a planned way, or result from distressed sales to ease cash difficulties. The second case is the one that a shareholder would not wish to face. Companies with acute cash difficulties may be forced to make distressed sales. This may result in the company obtaining a poor price for the asset it is. Selling as prospective purchasers recognize the financial difficulties of the seller and its weak negotiating position.
- (6) Is the company making acquisitions? Acquisitions can be a major drain on a company's resources. If companies are wishing to expand quickly this inevitably means purchasing existing companies. As companies are generally expected to pay a premium to gain control of the assets of an established business this strategy – can be expensive. If acquisitions have been made, or are expected to be made, it is important to ascertain the size of the purchase in relation to the overall cash flow. For all investing activities, the cost of acquisitions gives no indication about the wisdom of the purchase, but simply indicates the cash flow implication, which is nevertheless very helpful.
- (7) What is the funding need? A CFS can even assist a user in assessing company's funding need; if the company has a negative cash flow overall the question is then raised: how is this to be financed? Unless adequate cash reserves exist, in seeking additional funds a company has two choices: it can either issue new shares or borrow funds. Being aware of the above, a user of a CFS could easily interpret what is behind a new share issue or a loan.
- (8) Has the company raised new share capital? Companies may wish to raise additional funds from their shareholders to overcome any cash shortfall. Whether this option is available to the company, in practice as well as in theory, is dependent on a number of questions, which also are quite useful tools in assessing the company's financial viability. First, how often has the company recently issued new shares? If the company has recently raised significant sums of money through a new share issue, the stock market may be unwilling to absorb further amounts of company's paper. Secondly, stock market conditions, generally, may or may not be conducive to raising new funds.
- (9) To what extent has the company increased debt? Where a company has increased debt, the analyst should consider the repayment period of new debt-is it long or short term? In the latter case, the company will need to refinance the debt within a short-period of time. Depending on the context to the company and its ability to improve cash generation this could be difficult. Debt incurs a servicing cost, which particularly in times of high-interest rates can be a major drain on the company's cash resources. Companies generating cash will be in the opposite position of being able to decide whether they wish to repay debt.

All the above mentioned information are useful to the users of financial statements in order to evaluate:

- Changes in the assets and the liabilities of a specific company.
- Changes in its financial structure.



- The company's ability to absorb the changes of the economic environment.
- The company's ability to create cash or cash equivalents.
- The company's ability to successfully confront liquidity problems in the future.
- The company's ability to create future cash flows.

Furthermore, cash flows statement describes the cash or the cash equivalents in the income of a company and it could occur from three different activities. In specific from operating, investing and financing activities. By the term cash equivalent, we mean a highly liquid investment that can directly be transformed into cash with low or no risk at all relatively to its value before and after the transformation.

Operating activities are all the transactions and the events that are relevant to the company's normal operating activity in order to produce its primary product. Examples of CFSs from operating activities are returns from.

Investing activities are activities like the extension of a loan or one the other hand the collection of a current one, the dispose of investment and finally the purchase or the sell of long-lived assets that are not cash equivalents.

Financing activities are all the transactions that are relevant to the equity capital or the issuance of new debt.

A CFS from operating activities can be presented using either the direct or the indirect method. Using the direct method, all the gross incomings and the gross payments are presented in order to determine which cash flows are related to operating activities. By using the indirect method the net profit or loss is transformed, based on the influence of non-cash transactions, expected returns and payments and the income that could occur from financing or investing activities (IAS 7).

## 5. Data set and methodology

This study uses cross-sectional data from a sample of 97 Greek firms listed in the ASE for the fiscal year 1994. The sample consists of manufacturing and retailing companies listed in the ASE and the selection criterion is data availability. Banking and insurance companies, investment trusts and holding companies have been excluded from the sample because of the fact that the classification of accounts in their financial statements deviates from the standard guides provided by the Greek General Accounting Plan. All data refer to year 1994, which consist of the first year that IAS No. 7 has been in effect. Unfortunately, we were unable to find published CFSs for this year, and thus the focus of the research lies with the question as to whether information included in published financial statements has, at least, been adjusted to capture information about cash flows. In so doing we are trying to examine if Greek firms, that do not voluntarily disclose CFSs, wish to provide investors with cash flow relevant information. For the sample 97 companies CFSs have been prepared using the guidance of the indirect method prescribed in JFRS 1. From the financial statements of the sample companies 14 variables have been extracted. These variables are:

- NP, net profits,
- CF, cash flows, which is calculated as the sum of cash from operating activities, cash from investing activities and cash from financing activities and which

equals to the change in cash and cash equivalents in two subsequent years (1993-1994),

- FF, fund flows, which is obtained from the fund flow statements prepared and which equals to the change in net working capital in two subsequent years,
- NP/TA, net profits to total assets,
- CF/TA, cash flows to total assets,
- FF/TA, fund flows to total assets,
- WC/TA, net working capital to total assets,
- CA/TA, current assets to total assets,
- FA/TA, gross fixed assets to total assets (calculated undepreciated in order to account for the total amount of investment in fixed assets),
- TL/TA, total liabilities to total assets,
- LTL/TA, long term liabilities to total assets,
- STL/TA, short term liabilities to total assets,
- EC/TA, equity capital to total assets, and
- DIV/NP, dividends to net profits.

The first three of the variables are expressed in terms of millions of Euro. The rest of the variables are financial ratios expressed in percentage terms. These ratios have been classified by many authors as indicators of financial policy formulation and most of them have been used in the prediction of business failures in Greece.

These variables have been correlated in various ways in order to see whether information included in publicly available financial statements captures information about cash and fund flows that can be used either by investors or by managers in their decision-making process.

## 6. Discussion of the findings

Table I provides a set of summary statistics for the 14 variables calculated. By looking at the set of raw data, one can observe significant differences in the values of net profits, cash flows and fund flows. For example, only eight companies in the sample exhibit losses, whilst 25 exhibit negative cash flows and other 25 exhibit negative fund flows.

Obviously, there is a huge gap between the information obtained from the income statement and the information obtained from the cash/fund flow statement. Moreover, in 16 out of the 25 companies that have negative cash flows, display increasing profits between 1993 and 1994.

However, Table I shows that the mean values of cash flows and fund flows lie around the mean value of net profits. Statistical investigation for mean differences can be made through a simple hypothesis testing procedure. In this context, two sets of alternative hypotheses have been tested and the results can be seen in Table I.

	Mean	Standard error	Median	Standard deviation	Kurtosis	Skewness	Minimum	Maximum
NP	3.38	0.59	1.88	5.83	11.03	2.95	-4.49	32.43
CF	3.05	0.73	0.54	4.23	23.07	-4.35	-3.32	49.81
FF	3.83	0.67	1.58	3.68	6.64	2.09	-5.16	33.67
NP/TA	8.09	0.80	8.44	7.85	0.50	-0.31	-18.53	26.58
CF/TA	7.70	1.37	1.67	13.48	1.39	1.26	-16.78	50.82
FF/TA	12.91	1.80	534	17.77	-0.73	0.57	-20.63	54.21
WOT A	30.65	154	32.11	24.97	-0.58	-0.25	-40.94	74.89
CA/TA	65.52	1.65	66.71	16.20	-0.86	-0.29	30.69	94.61
FA/TA	53.91	3.01	49.92	2959	4.70	1.47	9.69	19657
TL/TA	37.41	1.98	34.81	19.48	-0.19	0.54	1.43	9118
LTL/TA	354	0.70	0.29	6.90	12.10	3.22	0.00	41.43
STL/TA	34.00	1.89	29.62	1856	054	0.89	1.43	9118
EGTA	62.59	L98	65.19	19.48	-0.19	-0.54	7.82	9857
DIV/NP	39.13	173	41.00	26.87	-057	0.14	0.00	100.00

**Note:** Numbers are rounded to two decimal points

**Table I.**  
Summary statistics  
(97 companies in the  
sample)

Set 1 :  $H_0$  : Mean NP = Mean CF

$H_1$  : Mean NP = Mean CF

Set 2 :  $H_0$  : Mean NP = Mean FF

$H_1$  : Mean NP = Mean FF

As shown in Table II, both sets of hypotheses are rejected at the 95 per cent level of significance. This finding implies that CF and FF deviate significantly from NP, even on an individual company level and on an industry level when all companies are averaged together.

A second line of inquiry concerns the validity of cash flows and fund flows as measures of business performance. One way to examine whether CF and FF perform well as profitability indexes is to test their association with widely advocated accounting measures of profitability, such as NP and NP/TA. Therefore, a second set of findings was based on the regressions of CF and FF to NP and of CF/TA and FF/TA to NP/TA:

	NP	CF	FF
Mean	3.38	3.05	3.83
Sample size	97	97	97
<i>t</i> -value		0.47	0.56
<i>P</i> -value		0.36	0.42

**Note:** Numbers are rounded to two decimal points

**Table II.**  
*t*-Tests for the mean  
values of NP, CF and FF

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$$NP_i = 766.02 + 0.37*CF_i + \varepsilon_i \quad R^2 = 0.21 \quad F = 24.84$$

(3.90)                      (4.98)

$$NP_i = 949.38 + 0.15*FF_i + \varepsilon_i; \quad R^2 = 0.03 \quad F = 3.01$$

(4.11)                      (1.73)

$$NP/TA_i = 6.18 + 0.86*\frac{CF}{TA_i} + \varepsilon_i \quad R^2 = 0.16 \quad F = 18.35$$

(7.20)                      (4.28)

$$NP/TA_i = 5.60 + 0.89*\frac{FF}{TA_i + \varepsilon_i} \quad R^2 = 0.19 \quad F = 22.26$$

(6.27)                      (4.72)

696

The results of the regressions indicate that fund flows present a very weak association with net profits and therefore bear little information content in explaining changes in the income statement. Both the values of the  $R^2$  (or F) and of the t-statistic are at low levels as compared to the respective values for the NP – CF regression. Cash flows on the other hand, display higher correlation with to net profits implying that cash flows bear information about firm profitability which users of financial statements deem to be relevant. When, however, the three variables are transformed into ratios, divided by total assets (which is also a simple way to account for firm size and to avoid the scaling effect), the results favor a fund flow measure of profitability. The ratio of FF/TA exhibits stronger association with NP/TA than the ratio of CF/TA. On the assumption that firms set targets in terms of NP/TA, this finding has a major implication; in the target setting process, management values more the availability of working capital rather than the availability of cash and cash equivalents.

Surprisingly enough, similar results are observed when the association of NP/TA, CF/TA and FF/TA with the rest of the ratios is examined. Table III presents the correlation coefficients ( $r$ ), between NP/TA, CF/TA and FF/TA and the rest of the ratio variables. The results indicate that in making investment, financing and dividend policy decisions firms place more value to the NP/TA ratio. When, however, the CF/TA and FF/TA ratios are considered the former exhibits stronger correlations in the cases of long-term investment decisions (FA/TA) and in dividend policy decisions (DIV/NP).

	NP/TA	CF/TA	FF/TA
NP/TA	1.0000		
CF/TA	0.4023	1.0000	
FF/TA	0.4357	0.6504	1.0000
WC/TA	0.5939	0.4625	0.5776
CA/TA	0.4258	0.3498	0.3340
FA/TA	-0.4286	-0.3171	-0.2928
TL/TA	-0.5039	-0.3551	-0.4597
LTL/TA	-0.2718	-0.1496	0.0100
STL/TA	-0.4223	-0.2957	-0.4706
EC/TA	0.5039	0.3551	0.4597
DIV/NP	0.2847	0.1832	-0.0146

**Table III.**  
Coefficients of  
correlation between  
ratio variables

In formulating working capital policy and financial policy firms consider the information content of the FF/TA ratio to be more significant (correlations with WC/TA, STL/TA, TL/TA, EC/TA).

In a final illustration, the sample companies are divided into 20 sub-samples according to ten practical “rules of thumb”; i.e. NP, CF and FF in excess of (below) zero, NP, CF and FF in excess of (below) industry averages, CF in excess of (below) NP, and NP/TA, CF/TA and FF/TA in excess of (below) industry averages. For each sub-sample correlations are obtained between NP/TA, CF/TA and FF/TA and the rest of the ratio variables. The correlations are then classified into significant and insignificant according to the rule:

$$R^2 \text{ significant } 0.16$$

which is the lowest value of  $R^2$  exhibited in the regressions of CF/TA and FF/TA to NP/TA. Table IV presents the percentages of the significant correlations observed in the 21 samples examined (20-sub-samples plus the original sample of companies). Again the results indicate that NP/TA exhibits the higher percentages of significant correlations. In addition, as compared to the ratio of FF/TA, the ratio of CF/TA is found to exhibit higher percentage of significant correlations with the ratios of FA/TA and DIV/NP, and lower percentages in all other cases. However, what is more interesting is that in the case of “bad news” situations (Lc., when the actual variables were below the respective benchmark), the ratio FF/TA exhibits the stronger correlations in all cases (except in the case of dividend distribution), implying that companies which face problems relate their decision-making process with working capital requirements.

## 7. Concluding remarks

The present study examines cash flow disclosure requirements and voluntary cash flow reporting in Greece. IAS No. 7 has been effective since 1994, for publicly traded companies and mandatory since 2000. However, during the period 1994-2000 very few (if none) Greek companies prepared and published CFSs. On the other hand, since 2000, listed companies prepare CFSs for regulatory authorities but these statements are not made publicly available. The present study shows that voluntarily cash flow disclosure is not apparent in Greece because cash flows reveal financial problems that other measures of performance do not. This is done by examining the relation between cash flows and other measures of profitability for year 1994 when IAS No. 7 was set in effect.

	NP/TA	CF/TA	FF/TA
NP/TA			
CF/TA	29		
FF/TA	48	76	
WC/TA	86	52	81
CA/TA	48	24	29
FA/TA	48	24	19
TL/TA	67	14	57
LTL/TA	14	5	0
STL/TA	43	5	57
EC/TA	67	14	62
DIV/NP	19	10	0

**Table IV.**  
Percentages of  
significant correlations  
( $R^2 > 0.16$ )

The results indicate that Greek companies have cash flow problems but not profitability problems. The publication of a CFS may reveal that many listed companies in Greece are not as robust as the balance sheet and the income statement potentially indicates. Thus, the main conclusion of the paper is that publication of the CFS in Greece should become mandatory. The HCMC has made significant attempts to enforce corporate governance principles for listed companies in Greece. These principles implicitly highlight the desire of the regulatory authorities that investors receive adequate and relevant information. Could it be, however, that investors get relevant information when they do not have the essential inputs required to value a company?

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