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An Integrated Financial Ratio Analysis as a Navigation Compass through the Fraudulent Reporting Conundrum: A Case Study

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Eleftherios Kourtis[1], Georgios Kourtis[2], Panayiotis Curtis[3]

Abstract:

Purpose: *An integrated analysis of the consolidated financial statements of the Folli Follie group was performed to explore whether it is an effective apparatus ro reveal misleading reporting.*
Design/methodology/approach: *Horizontal and vertical analysis, cash flows from operations, current accruals quality, profitability ratios, as well as the cash conversion cycle (CCC) and Piotroski models were applied. All of them worked harmoniously in a supplementary fashion to corroborate findings of distorted data reporting.*
Findings: *Financial ratios had been derailed and remained unexplained by the prtinciples of financial management. It is attributed to fraudulent earnings management practices, that altered artificially specific financial data disproportionally.*
Practical implications: *An integrated financial ratio analysis contributes to preventing or ameliorating the non-efficient allocation of resources associated with deplorable creative accounting practices, that creates welfare loses to the detriment of shareholders, stakeholders and ultimately to society as a whole.*
Originality/value: *The analysis outcomes can be exploited as a red flags / whistle-blowing mechanism in cases of financial statement manipulation, since under these circumstances crucial financial ratios seem to derail. A holistic financial statement analysis is proven to represent a vital roadmap and an effective apparatus in forensic accounting, to secure that unfounded financial reporting based on spurious data will not easily get away unnoticed.*

Keywords: *Fraudulent Reporting, Earnings Management, Financial Statements Analysis, Ratios, CFFO, CCC, Du Pont Analysis.*

JEL codes: *G32, G11, G14.*

Paper type: *A Case Study.*

[1]*M.Eng., LSE, MSc Real Estate Economics and Finance Candidate* *E.M.Kourtis@lse.ac.uk*
[2]*M.Sc., Associate financial reporting analyst* *giorgoskourtis90@gmail.com*
[3]*Ass. Professor, University of Athens,* *pkourtis@uoa.gr*

1. Introduction

The revised "Conceptual Framework for Financial Reporting (its original predecessor was issued in 1989 and an unfinished draft in 2010) states that its main purpose is to provide existing and potential investors, lenders and other creditors with the necessary information to: a) make decisions about holding, buying or selling equity or debt instruments, b) assess how effectively and efficiently management administers the resources claims (financial position and performance) and c) find out about the entity's prospects for future cash flows. Reported financial information to be useful among other characteristics (accurate, comparable, relevant, understandable, timeliness), must also be verifiable (IASB, 2018).

Nowadays due to the scale of corporations their equity financing comes from a variety of different sources and management is usually different from the owners. The agency theory examines the relationship of principal and agent, as well as the possible conflicts of interest that may arise due to possible different risk preferences and the ensuing opportunistic behavior of management that may prop up. This situation is facilitated by the existing asymmetry information between principal and agent-management and the absence of optimal contract arrangement among the two parties (Jensen and Meckling, 1976**)** due to transaction cost and bounded rationality involved, that doesn't allow to foresee all contingent future events and arrange them. Moral hazard and adverse selection problems are usually associated with information asymmetry among management, diverse stockholders and the rest stakeholders (Scott, 2014; Eisenhard, 1989).

Information asymmetry fosters adverse selection due to the fact that inside party (management) possesses advantage in gauging the current true financial situation and its future possibilities, at the detriment of outside parties that do not have access to information needed. Credible reported data is meant to attenuate and correct the problem of information asymmetry. Contrived earnings create moral hazard problems, since stockholders and stakeholders cannot use dependable profitability performance measures (notably profits, ROE, ROA) to judge the competence and integrity of management in serving their interest, or penalize it otherwise, by rewarding them less. Forged profits misdirect the flow of resources. Such practices distort the capital market operation as a dependable mechanism of effective and efficient resource allocation in the economy. Thus create economic waste and losses and hamper the creation of new wealth for the group and society as a whole. Manipulated reported data also exacerbate the problem of adverse selection (Scott, 2014).

Creative accounting practices of management usually exploits appropriately the relative discretion of how accounting rules are applied. It provide some leeway that allow management "to inflate earnings, revenue, assets and/or reduce expenses, liabilities and losses leading to earnings management" (Spathis, 2002). Those practices are facilitated if the corporate governance mechanisms in place are not

effective. Financial statement fraud, is the manipulation of the information used to prepare them and the way are presented. By manipulating accounting data, the financial picture of the company or the group is falsified to satisfy expectations that support company's stock price and the remuneration of the management (Üyesi *et al.*, 2019). Those deplorable practices when revealed create discontent and low trust among investors regarding the authenticity and the relevance of financial statement information as an effective guiding mechanism for the decision making process. It lowers and/or misdirect investments and curb growth and development of the economy.

2. Financial Shenanighans: The Case of Folli Follie (FF) Group

The Folli Follie (FF) group under scrutiny (listed on the Athens Stock Exchange), was formed when the original FF firm gained control of two other companies, Elmec Sport Co., in 2007 and Hellenic Duty Free Shops Co., in 2006. The consolidation facilitated any possible inclination of the management for data manipulation activities. A final decisive factor towards that direction, was the development of an extensive in papers (but fictitious in practice) commercial operation of the in Asia. It was made possible due to the absence of corporate governance mechanisms and an appropriate internal control system as a safeguard that, could thwart financial reporting misstatements. The activity in Asia circumvented any serious audit procedures for quite a long time, due to the negligence or probably under the auspices of the management. The absence of an effective preventive or corrective mechanism, allowed management to carry out a nebulous activity (in Asia mainly). It was that part of operations under the radar of internal control (and not only), that fostered primarily invisibility and obscurity in transactions and malign accounting handling, that reflected in the financial statements analysis outcomes..

The Gabriel Grego of Quintessential Capital Management published early May of 2018, the results of the investigation with respect the operations of the Folli Follie (FF) in Asia. According to the allegations the accuracy of the 2017 financial statements (at least), were seriously and loudly questioned. Not long after the previous incidence, the trading of the stock was suspended at Athens Stock Exchange. A preliminary audit of the operations in Asia performed by an independent advisory firm, ascertained most of the alleged wrong doings with respect the authenticity of the reported financial data. An announcement by the FF group on 26th of Sept 2018 stated “during the Board of Directors’ meeting that took place on day before, the report of the advisory company Alvarez & Marsal, which refers to the results of the audits conducted for the companies of the FFG group in Asia (APAC), was presented to the members of the Board”. The main accounts of the balance sheet and Income statement reported in the financial statements of the FF Group for the year 2017 and the corresponding amounts ascertained by the Alvarez & Marsal with the title “Preliminary Restatement Findings, are presented in Table 1 below.

Table 1. *Alvarez & Marsal's restatement findings (amounts in millions of $)*

Main Accounts	Financial Statements 2017	Alvarez & Marsal 2017
Iinventories	581,7	33,9
Trade receivables	719,0	99,1
Other receivables and prepayments	310,7	7,6
Bank and Cash balances	296,8	6,4
Trade and other payables	144,6	260,9
Revenues	1.112,3	116,8
Profits	316,4	(44,7)
Retained earnings	1.831,9	(180,6)

Source: *e-kathimerini.com*

Given that financial statements data of the FF group are grossly distorted based on the findings (table 1) of the audits of operations in Asia (representing about 80% of reported revenues), none of the preconditions contained in "Conceptual Framework for Financial Reporting" exist with respect the information it provides to stakeholders, which are not verifiable but contrived.

In addition agency problems are present and opportunistic behavior of the management is encouraged, since the "principal" doesn't have the appropriate information to verify agent's behavior, so that the latter to be "obliged" to act in the interest of the former. The term "principal" in our case, refers to the majority of the owners that do not participate in the management (except the members of family founded the FF group who own 35 % of its equity capital and carry out the management task), and are the ones that suffer the repercussions of the fraudulent financial reporting. So, one of the main tenants of the agency theory (Jensen and Meckling, 1976), was violated at the expense of the "principal" and the agent (management) was facilitated to seek opportunistic behavior and advance its own interests.

The reporting practices of the Folli Follie (FF) group case, revived once again the concern of the public for the accuracy, trustworthiness and transparency of the data contained in the financial statements of publically traded companies in many cases. It also raised questions regarding the level of adequacy of the existing institutionalized checks and balances applied, purporting to effectively safeguard the interest of the investors, against the abuses of power of the management, emanating from their information asymmetry status, vis a vis all stakeholders (internal and external). The asymmetry problem was not attenuated by the questionable (at least) reporting practices (that are meant to inform stakeholders), but intensified through the dissemination of false data.

3. Reported Financial Statement Data and Analysis

Given that stakeholder don't have any accessibility to data, in order to trace the

reported financial shenanigans we will try to substantiate that if we use financial statement analysis tools in a holistic manner studying a longer period, it is feasible. It is well known that financial statement analysis includes:

- vertical and horizontal;
- Ratio analysis;
- Cash flow analysis.

In Table 2 below, we examine how the reported (the contrived ones) financial statement data by FF group, unfolded in the period of 2017-2008. By performing horizontal analysis (using 2008 as the base year), we try to obtain a big picture of the group's most crucial financial figures. Our aim is to find out whether it is possible through a more elaborate financial statement analysis to discern that there is something unusual going on with the data published, that could trigger a further and more in depth scrutiny of specific data of the statements.

Year 2008 was chosen as it is the first year consolidated financial statements were actually prepared after the merge of the three companies under the name of FF group. This year is the first one to be considered as absolutely comparable to 2017 (the year that financial statements were disputed publically) and we intend to use it as a base year for comparisons. The time period is long enough to form a rather solid opinion. Alternatively, for those who may think that the period of ten years is long and cumbersome in the analysis, the last column of Table 2, calculates changes of 2012 data with respect to 2008 (a five year period), so that some one can see that our conclusions are not altered by shortening the period of comparison. The data presented in Table 2, were extracted from the consolidated financial statements of the FF group published annually for the period 2008-2017. The column before the last one denotes the change of each variable in 2017, compared to 2008. It contains the horizontal analysis of crucial information for the entire period, we choose to study further with the use of additional tools of fundamental analysis.

Table 2. *Financial data of the FF group(Million Euros)*

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2017/ 2008 (%)	2012/2008 (%)
Revenues	1.419,3	1.337,3	1.193.0	1 198,1	934,2	1.110,0	1.021,4	989,6	992,5	937,3	51,4	18,4
Earnings after Taxes	216,8	226,9	186,3	145,4	347,5	95,6	91,3	85,1	98,2	76,9	181,9	24,3
Cash flows fromoperations	(21,0)	140,1	57,9	56,2	6,5	23,6	0,1	29,9	55,4	32,8	(165,0)	(26,8)
Dividends distributed	1,2	1,2	21,0	51,2	0,0	0,0	0,0	4,1	14,5	23,5		
Total assets	2.775,1	2.580,2	2.207,6	1.969,5	1.571,8	1.815,8	1.723,9	1.582,8	1.436,7	1.345,0	106,3	35,5
Equity Capital	1.919,2	1.884,4	1.605.7	1.360,8	1.183,4	825,1	739,8	529,2	441,1	376.2	410,2	193,2
Retained Earnings	1.576,0	1.362,5	1.140,2	965,3	1.077,8	768,2	674,7	585,5	405,3	308,6	410,7	148,9

Total non-current Assets	679,7	781,3	650,7	605,7	547,3	719,9	705,5	635,9	690,5	680,6	(0,13)	5,8
Total Current Assets	2.095,4	1.798,9	1.556,9	1.363,9	1.024,5	1.095,9	1.010,4	877,3	690.0	664.4	215,4	64,9
Short Term Liabilities	302,5	290,0	226,4	260,5	323,9	312,2	417,2	319,9	600,6	317.3	(4,7)	(1,6)

From Table 2, we observe initially that revenues in 2017 rose by 51,4 % (or 18,4 % in 2012), compared to 2008. We observe also that the financial data exhibiting the greater increase in 2017 (the year of which financial statements were disputed and found distorted) compared to the 2008 (which is the first year of consolidation), in a descending order are:

- retained earnings increased by 410,7% (148,9);
- equity capital increased by 410,2% (193,2);
- total current assets increased by 215,4% (64,9);
- earnings after taxes increased by 181,9% (24,3).

(The numbers in parenthesis represent changes in the data of 2012 compared to 2008, that produce the same conclusions).

All these changes (2017/2008 period) are related directly or indirectly to the annual earnings posted by the group that represents the 4th in row increased item. Retained earnings (the 1st) increases, came about due to annual earnings reported (even ostensibly), that induced equity capital (2nd) to surge by 410,2% over the years, since earnings were not distributed to a considerable extend (for "non-apparent" reason). That is why, the quality of earnings posted must be meticulously examined, to rule out the possibility that artificial inflation of current asset (the 3rd most increased item), has taken place in order to manipulate earnings favorably. It is also necessary to study the increase in current assets, given the fact that short term liabilities (that current capital is supposed to associated with through the ratio of general liquidity), have contracted by 4,7% during the same period. The latter development doesn't justify an incommensurate in scale increase in current assets (as the one observed), that elevated the general liquidity ratio to 693,8%! in 2017, from the level of 209,4% in the 2008 year.

The unexplained and unusual escalation in general liquidity ratio clearly hampers profitability, which is a highest goal. The questionable hike in current assets over the period, altered the composition of assets (fixed and current) that was almost 50%-50% in 2008, while in 2017 the fixed assets were representing only 24,5% and the current ones climbed in to 75,5%, according to vertical analysis of the data contained in the balance sheet. It is not justified either the increase in retained earnings and equity capital, since the fixed assets, did not increase. In order all these unusual changes to be somewhat justified in the eyes of the stakeholders, the revenue figures had to be "arranged-fixed" by the management respectively, since almost everything else is associated with and it is the principal factor affecting all the rest variables. The genuine revenue figures is not possible to successfully

identified by external analysis. At this stage we observe that the level retained earnings, equity capital and current assets are not easily explainable and all of them are related to reported earnings. The quality of the latter as a result, must be further examined. This impression becomes even stronger, if we take in to consideration which of the financial variables have been reduced in our case.

Based on Table 2 we observe also that the three financial variables that decreased were the cash flows from operations, the non-current-fixed assets and the short term liabilities. The down turn of these items in 2017 compared to 2008, can not justify a considerable real increase in net income-earnings or retained earnings (and equity) and questions seriously the behavior of the total current assets. These developments are not a coincidence, they are interrelated and explain of what happened (if we take in to consideration the report of Alvarez & Marsal).

The total reported earnings of the FF group for the period (2017-2008) accumulated to 1.570,0 m euros, while total cash flows from operations reached only 381,5 m euros. We thus observe that there is a difference of 1.188,5 m euros in net earnings reported above the cash flows from operations and it can be considered as doubtful. We observe also that retained earnings surge from 308,6 m in 2008, to 1.576,0 m in 2017, which means that 1,267.4 m euros were accumulated from previous profitability and increased equity capital. The total dividends distributed in the same period touched 146,8 m. euros (representing a figure below 10% of the total earnings reported), which is exceptionally and unexplained quite low.

The surge in net income-earnings seems evidently fictitious, since it is consistently well below cash flows from operations every single year for the entire period 2017-2008. The questionable reported earnings explain why are not distributed as dividends and boosted instead the retained earnings. To increase earnings through creative accounting, current assets (receivables and/or inventories) must be considerably fueled, while short term liabilities are underestimated. Retained earnings as a result escalated ostensibly (to cover up forged earnings), bolstering equity capital without any credible justification, since fixed assets were not increased and existing interest payments were comfortably covered (not to mention that debt capital wasn't reduced accordingly). Whatever is observed to happen in the entire period during which consolidated financial statements are available by comparing the 2017 with respect to 2008 (a ten year period), the same conclusions are drawn, if we compare 2012 to 2008 (a five year period), as shown by the numbers in parenthesis. The direction of the changes is the same, simply as the period under examination is increasing, the derailment of the pertinent ratios is exacerbated.

Given that four items namely inventories, receivables, payables and depreciation (Scott, 2014), are the main ones used by the management to affect earnings, the tracing of the quality of earnings of the FF group must be pursued. It is performed through the reckoning of the items of current assets and short term liabilities that

encompass three of the four factors that are evidently pertinent to our case (depreciation is evidently of minor importance in our case, since it is used primarily in the cases of companies whose fixed assets are considerably higher than currents, that doesn't hold in FF group). To do so we apply the tool of the Cash Conversion Cycle (CCC) using data according to the reported financial statements of the FF group.

4. The Cash Conversion Cycle (CCC)

The Cash Conversion Cycle (CCC) measure of analysis, refers to the length of time (usually in days) that is necessary for an economic entity to convert the current assets and short term liabilities into cash flows. Current assets are related to the operating cycle and in connection with short term liabilities are used to define net working capital. So we get:

Cash Conversion Cycle = Operating Cycle – Accounts payable period;
Given that: Operating Cycle = inventory in days + days sales outstanding;
We have: Cash Conversion Cycle (CCC) = inventory in days + days sales outstanding - Accounts payable in days (Nobanee *et al.*, 2014).

All these items represent the accruals associated with working capital and for many "occur as a judgement" (to a certain extend) on behalf of management, using the accounting rule discretion that provides enough leeway for management estimations. As such, current accruals have been blamed as a mechanism of accounting earnings management- distortion. "Changes in accounts receivables and inventory appear to contain important information about the earnings quality of firms" (Palepu *et al.*, 2003).

To administer CCC effectively and efficiently as possible the economic entity, it is necessary to decide the appropriate collection period of receivables, the optimum level of inventories (given its carrying cost) and the corresponding payables. In order to study more closely changes in CCC, based on the published financial statements of the FF group for the period 2017-2008, we construct the following Table 3, that allows us to search for possible manipulation in the 2017, using as basis for comparison the first year of consolidation (2008).

Table 3. *Working Capital Analysis (2017-2008) (Million Euros)*

Year	2017	2016	2008	2007
Revenues	1.419,3		937,3	
Cost of Goods sold	785,5		462,9	
Receivables	664,0	654.7	286,4	195,1

Average Receivables	659,4		240,8	
Inventories	635,0	586,0	245,8	209,2
Average Inventories	610,5		227,5	
Payables	139,1	141,0	174,3	148,4
Average Payables	140,1		161,4	

According to the data presented in Table 3, we calculate the CCC and examine any important changes in the three building blocks of it (receivables, inventories and payables) of the measure. In 2017, we get receivable of 169,8 days sales outstanding (or 2,15=1.419,3/659,4). Inventories 283,0 days (or 1,29=785,5/610,5) and payables of 65,1 days outstanding (5,61=785,5/140,1). Based on the calculations preceded, the cash conversion cycle (CCC) of the group for the 2017 is equal to 169,8 + 283,0 - 65,1=387,7 days. Correspondingly in 2008, the receivables are equal to 93,8 days of sales outstanding (3,89=937,3/240,8). Inventories are 180 days (or 2,03= 462,9/227,5). Payables are equal to 127,2 days (or 2,87= 462,9/161,4). So, the cash conversion cycle of the group in the 2008 was equal to 146,6 days (93,8 +180-127,2).

We see that in 2017 the cash conversion cycle (CCC) increased to 387,7 days, compared to 146,6 days in 2008. It represents an adverse change (increase) touching 164,5%, that indicates that in 2017 cash is stuck into receivables and inventories for considerably more time (that is actually exceeds one year!). It is clear a serious impediment to profitability and value creation process of the group, since it increases capital employed, costs and risks (given it absorbs cash for more time). It represents one more adverse development that must be explained by the analysis why it happened and if it is real (or contrived so that the group exhibit more profits by inflating current capital). So, it is crucial to the analysis study more thoroughly these developments in order to reveal the circumstances under which they appear and their repercussion. Towards achieving that aim, we study developments in the profitability of the group and its determinants during the period (2017-2008).

5. Retained Earnings and the Extended DuPont (ROE) Model

Based on DuPont model revenues (sales) is the core number and that almost all of the important data (ie., earnings, invested capital, receivables, inventories, short-term liabilities etc) of the financial statements hinge upon. It is the most crucial figure and that is why we are commencing our analysis based on its fluctuations. We

make the assumption initially, that revenues figures reported and their increase of 51% during the ten year period (2017/2008) are true. At the same time we observed previously a totally unexplained manifold (compare to revenues) increase in the equity capital (in the form of retained "earnings") and in the current assets (cash and cash equivalents included). Now we examine these developments (since we believe that they are the crux of what happened in the financial statements), in conjunction with the developments in the Return on Equity (ROE) in its expanded (three ratio) form in order to find the Ariadne's thread out of the conundrum of the reported data.

We observed an increase in equity capital to the tune of 401,2 % and as a result equity reached 69,2 % of the total capital in 2017 (compare to 33,4 % in 2008). Equity doubled its contribution in the total capital invested in the FF Group with no apparent reason. Given that in the same period the non current assets (that almost primarily utilize equity funding) in 2017, decreased slightly by 0,13% compare to 2008. So, the huge increase in equity funding, can't be justified convincingly by the theory of finance. This paradox becomes more obvious, if we calculate the ratio equity/non current assets. We observe that the group covers non current-fixed assets by 282,3%! (without taking into consideration long term liabilities).

It is exceptionally high and unexplained, it affects adversely the value of the group (since it decreases the return of equity), given that equity capital costs more than the external funding, risk is not reduced since external financing is not very high and interest expenses were easily covered by EBIT. High operational risk is not involved. The fixed assets of the group are quite normal compared to the total ones. Profitability concerns usually trigger financial statement changes. ROE is considered as one of the most widely adopted criterion for investment decisions purposes. In order to grasp more firmly what factors determine ROE, we must study its constituencies. According to the extended Du Pont version, we have: ROE = Net profit margin X Assets Turnover X Leverage Multiplier.

According to the data extracted from the financial statements of 2017 (Table 2) and the profit margin, the asset turn over and the leverage multiplier ratios calculated in the following Table 4, ROE in 2017 is equal to 11,3% = 15,3% X 51,4% X 144,6%. As far as 2008 is concerned, ROE is equal to 20,3% = 8,2% X 69,5% X 357,5% .

Table 4. *FF Group- Extended ROE Financial Ratios (%)*

	2017	2016	2011	2010	2009	2008	2017/2008
Net profit margin =Net Profit/ Revenues	15,3	17,0	8,9	8,6	11,6	8,2	86,6
Assets turn over = Revenues / Total Assets	51,4	51,8	59,3	62,5	69,1	69,5	-26,0

Leverage Multiplier = Total Assets/Equity	144,6	136,9	233,0	299,1	325,7	357,5	-59,6
Return on Equity (ROE)	11,3	12,0	12,3	16,0	26,1	20,3	-44,3
Current Ratio	693	620	242	274	127	209	231,6
Current /Total Assets	0,76	0,70	0,59	0,55	51,9	49,4	

Based on the above, we see that ROE of 2017 represents only 55,7 % of the return of 2008. So, the group suffered a notable deterioration in its return on equity capital. Considering the three building blocks of the return on equity (ROE), we observe that the asset turnover and the leverage factors decreased by 26,0% and 59,6% respectively, as a result primarily of the increase in equity (through the retained earnings) and total assets. The net profit margin is the only factor that improved (unexplained) remarkably by 86,8 % in 2017 (compared to 2008). These developments maintained the return on equity above the threshold of 10%, is deemed as a minimum acceptable return by the foreign stockholders, for a Greek company. So the management wouldn't jeopardize losing their confidence (by achieving performance below that).

Given that the only factor that improved was the net profit margin, the quality of profits is needed to be scrutinized. The trustworthiness of profits is usually disputed (due to accrual accounting), when these are not translated into equal (or higher) cash flows from operations (CFFO) (Piotroski, 2000). The latter unfortunately for the FF group, fall every year considerably behind earnings during the period (or are even negative! as it happened in 2017). The persuasiveness of profits suffers by the fact that in addition dividends were not distributed, but inflated retained earnings, equity and total capital. This process is creating a spiral that dictates the need for more profits and greater net profit margins in order to secure an acceptable ROE and ROA. That is why the profit margin was actually the only ratio determining ROE, that augmented from 8,2% in 2008, to 15,3% in 2017 (Table 4). Its trajectory is moving to the opposing direction to the ones of assets turnover and leverage (which are decreasing) and is actually offsetting (to a certain extend) the negative changes in the other two factors, to secure a reasonable ROE.

6. The Quality of Reported Earnings - CFFO/Earnings Ratio

The study of ROE indicated that the soundness of reported earnings-profits of the FF group, must be under further intense scrutiny. It is mandatory task, since the prevailing impression and belief among the practioners is that in general hold the following statements: "Profit is an opinion. Cash is a fact", "Operating cash flows are very difficult to forge", "Cash Dividends are impossible to fake" and "Accruals are more subject to errors of estimation and possible manager bias, than cash flows and are less persistent" (Sloan, 1996).

It is also true at the same time according to FASB 1978 (section 44), that company's earnings and its components measured by accrual accounting perspective, give a more efficient indication about company's performance than information about the current cash transactions occurred. Dechow *et al.* (2014) also alleges that the accrual accounting bolsters earnings ability to reflect periodic performance (compared to cash accounting) by:

- anticipating future cash inflows and outflows;
- delaying the recognition of expenses despite a current cash outflow and recognition of revenues despite a current cash inflow.

In doing so, accruals (measured by the difference between earnings and operational cash flow) make earnings timelier than cash, as well as more effective in matching revenues and expenses. They also state that accruals contribute to earnings persistence, as well as reduce volatility, compared to the cash accounting figures. Given the crucial role accruals play in determining earnings and valuation, Dechow (1994) investigates circumstances under which accruals galvanize earnings' ability to measure firm's performance, that is finally reflected in stock returns. She argues that the importance of accruals is magnified when the performance measurement period is shorter. Hence, according to her the shorter the period, the more valuable is the contribution of accruals in abetting the problems of a) timing and b) matching of revenues and expenses, created by the cash accounting. Their contribution depends on the quality of accruals, that in turn determines the quality of accounting earnings.

According to Morgan Stanley Bank (2011) the objective of earnings quality analysis is *"to assess the extent to which a company's past and present reported financials, provide a sound basis for forecasting its future performance".* So, an earnings quality analysis, must examine *"whether operating margins and sales growth are sustainable ….and if a substantial and steady divergence between earnings and cash flows is observed".* In our case the divergence of earnings and cash flows from operation is obvious in the reported financial statement data. The sustainability of the FF group sales growth and performance is fabricated as we showed in examining profitability.

Warshavsky (2012) argues, that some signs of accounting manipulation of financial statement data, that could adversely affect the company's earnings quality are among other things, the reporting fictitious revenues and failing to record, or improperly reducing, liabilities. Both of these symptoms were identified and confirmed by Alvarez and Marsal audit of 2018.

According to Richardson *et al.* (2001), current accruals, as well as the changes in asset efficiency can determine the persistence of earnings. They further allege that information contained in accruals about earnings quality, originate from growth in the scale of operations, as well as from the deterioration in the efficiency of use of

assets. Both sales growth (scale) and assets turnover (efficiency) were found to fall behind in the case of FF group.

Sloan (1996) holds that accruals affect the quality of earnings and argues that when earnings are composed primarily by accruals, some of the anticipated earnings may not be fulfilled. He adds that when the accrual component of earnings is higher than the one of the corresponding cash flow, there is an overstatement of earnings. It is therefore a sign that earnings will not persist in the future period and will be rather reversed, as it happened at least partially) in our case. The earnings of the FF group are more than four times higher than cash flows from operations. It is known that Earnings (Net Income)= Cash flow from operations +/- Net Accruals.

In general, cash flows from operations (CFFO), is consider that should be higher than reported earnings (profits) due to the fact that " depreciation and amortization are added back to net profit in the cash flow statement". In accordance with the previous statement, for a global sample of 16.000 companies during the period 2010-201, the ratio CFFO/net profit was found to be 150% (gmtresearch). Ratio above 100% characterizes every successful company globally. On the other hand, in case that earnings-profits are higher than cash flows from operations "it suggests the company is either becoming increasingly aggressive in profit recognition through a higher level of accruals or experiencing deterioration in terms of trade" (ValuePickr).

In our case over the considerable time period of ten years (2017-08) examined, we expect that any difference between these two pivotal measures must phased out and these figures to converge (at least) to 100% (if cumulative cash flow doesn't exceeds clearly the total reported earnings). For the FF group, the ratio CFFO/Earnings = 381,5/1.570,0=0.243. A meager ratio of 24,3% only (according to the data of the following Table 5), indicates that earnings are not translated effectively in to operating cash flows and their quality is not secured. There is an undisputable large difference at the expense of cash flows from operations that persists throughout the 10 year period, which is quite long period to be ignored. The quality of declared annual net earnings appear to be contentious.

Table 5*. Financial figures (Million Euros)*

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	Total 2017-2008
Earnings	216,8	226,9	186,3	145,4	347,5	95,6	91,3	85,1	98,2	76,9	1.570,0
Cash flows from Operations (CFFO	(21,0)	140,1	57,9	56,2	6,5	23,6	0,1	29,9	55,4	32,8	381,5

It is remarkable that although the FF group declared net profits of 216,8 m in 2017, it reported at the same time negative! cash flows from operations equal to 21,0 m euros. We examine further the quality of earnings declared, using the Piotroski model (2000). According to it, the quality of earnings depends on whether the cash flow from operation: a) is positive and b) greater than earnings.

It is illuminating the fact that none of these two criteria is fulfilled at least for the 2017 statements (the latter of the two criteria has never been fulfilled in any year of the period). The cash flows from operations of the FF group for the entire period under consideration are consistently well below earnings and oscillate in a conspicuous fashion, that none financially sound company exhibit for a long time as in our case.

By applying further the Piotroski model (2000) of ratio analysis in the 2017 financial statement data of the FF group, we find that with respect the nine (9) criteria, only three (3) of them are fulfilled successfully. This poor performance based on the model, is a sign that the real financial health of the company is not as satisfactory, as first glance analysis might convey using the aggregate ROE, liquidity and leverage ratios alone or the Z score may suggest. Studying the performance of the FF group based on Piotroski's model more thoroughly, we observe that the only positive criteria fulfilled are the ROA (positive return), liquidity, equity and not increase in shares outstanding. All these though are improving as the result of earnings manipulation that forge net earnings. Net earnings were fabricated by inflating receivables (sales) and inventories (to lower cost of goods sold).

Underestimating also short term liabilities, boosted liquidity artificial. The fake earnings were not distributed (as expected) and boosted equity capital lowering leverage as a result. Since all pivotal financial data were forged the management of the group had no motivation to issue new shares (that is a positive sign by the model), so that its control (by the old owners) would be diluted and financial statements would be probably under closer scrutiny. So, all three "positive signs" is a result of manipulation and not of a genuine performance. On the other hand, we observe that according to Piotroski the group failed miserably in fulfilling vital required criteria regarding the cash from operations, the efficiency or profitability improvement (from year to year) criteria.

A useful additional supplementary test is the earnings manipulation detection model of Beneish (1999). He finds that companies in order to manipulate financial statements data employ mainly either contrived sales boosting and/or artificially inflated current capital data. The most suitable means depends on whether the company is characterized by high net profit margin and/or its total capital is overwhelmingly dominated by current assets items (as opposed to fixed assets ones). In our case the economic entity combines both features. It is characterized by relatively high net profit margin (15,3% in 2017, Table 4), while at the same time

the current assets amount 76% of the total ones (Table 2). Since either feature is present in the case of the FF group both these methods were deemed appropriate and were utilized accordingly, as we saw examining the three individual factors determining ROE .

We firmly believe that an integrated (combining an array of supplementary tools) and not a partial and biased financial statement analysis, is well equipped to uncover any reporting wrong doings and can be used in forensic accounting dealing with cases of financial statements fraudulent reporting (Curtis *et al.,* 2005). A secluded application of a certain tool (as it is in our case the Z score of Altman), may conceal important aspects in the analysis. It can happen due to the fact that the specific tool purporting to explore bankruptcy considerations its construction is based on ratios that exploit primarily accounting profits (current and retained), liquidity data (short term assets and liabilities), leverage (equity and debt data) and efficiency measures (revenues and total capital, Altman 2000).

All of these data as we have seen so far, are the ones that have been used to manipulate financial statements. So, the Z score is greater than 2,8 which is a threshold point, below of which may cause alarming concerns. As a result by exploiting in the analysis of the specific group primarily those type o instruments (appropriate for other circumstances), someone may reach unfounded conclusions regarding the financial rigor of the group. This type of pitfall can be avoided by examining meticulously the soundness of the inner logic connecting the tools applied in each case. The analysis must be appropriate to elucidate any contradictions in the reported financial statements that may reflect manipulation (ample accounting profits but not dividend distribution or commensurate cash flows from operations, unjustified inflation of retained earnings and equity capital, unexplained "cash and equivalents" and current capital accumulation etc). All tools applied must be chosen to form an integrated apparatus with a seamless possible transition from one to the next, so that secured and unequivocal conclusions about the financial health of the group can readily emerge. In that case the forensic accounting mechanism may represent the Ariadne's thread, that will lead us successfully through the inner labyrinths (conundrum) of reported forged financial statements (after "killing the Minotaur" of manipulation). It will then reveal the true financial position of the financial entity, that is blatantly concealed. This mechanism can be integrated with appropriate corporate governance provisions and internal control setting to detect and prevent fraud and its deleterious implications for a company, the economy and society

7. Conclusion

The published financial statements of the FF group for the 2017 (and not only) unequivocally violated the spirit and the substance of the revised "Conceptual Framework for Financial Reporting", since it failed to provide existing and potential investors, lenders and other creditors, with the necessary information to assess how

effectively and efficiently management administers the resources and evaluate the entity's prospects for future cash flows. Almost all of the reported data were not proven verifiable, but strongly distorted and inappropriate as an input to the decision making process. In addition the reporting practices by the FF group didn't attenuated the agent and information asymmetry problems but accentuated them, given its obviously deficient corporate governance and internal control systems, that facilitated manipulations.

Specifically an analysis of the 2008-2017 financial statements of the FF group based primarily on financial ratios, indicated that with the laps of time some ratios took values unexplained by the financial management principles. Horizontal, vertical and extended ROE analysis, current accruals quality, cash flows from operations ratios, as well as the cash conversion cycle analysis were applied. All of them worked synergically to substantiate findings that earnings management practices were extensively performed and specific data may were artificially boosted to perpetrate financial statements forging. The analysis was supplemented by additional tools (Piotroski model) related to fundamental analysis, that can be used as forensic mechanisms to detect fraud. Their application revealed the direction and depth of manipulation.

The horizontal and vertical analysis of the financial statement statements data over an adequate period, revealed discrepancies or aberrations in crucial ratios, that were examined parsimoniously to comprehend the causes (genuine or contrived). The synergistic application of tools revealed that reported profitability is questionable and it achieved primarily due to higher profit margins that were attained through overstating current assets (inventories and receivables). So profits couldn't be translated in to operating cash flows, but bolstered liquidity instead. Dubious retained earnings (of the forged ones), overstated finally equity capital (decreasing leverage ostensibly and the multiplier), that finally curbed ROE. The tools applied examined almost all aspects of financial performance in a balanced and constructive manner. We didn't use tools that underscore predominately only specific aspects of performance in a concise form as accounting returns (ROE as a single ratio), liquidity, leverage (or even the Z score of Altman), that would have provide us with placid-acceptable (but false) signs, since the management had affected their determinants in a more astute fashion.

An integrated analysis (representing an acceptable agency cost), can be exploited as forensic accounting mechanism by internal and external stakeholders, to trace when corporative governance doesn't work efficiently and effectively (as in the case of Folli Follie) and fraudulent accounting practices may have taken place. Under such circumstances, we observe that crucial financial ratios derail and can be used as red flag mechanism indicating whether and how financial statement manipulation has been perpetrated. So information asymmetry can be partially corrected and agency problems can be monitored indirectly with some extra (reasonable) cost related to performing financial statement analysis. The latter (when it is used in a more holistic

rather than haphazard way) is an indispensable mechanism to secure that possible fraudulent financial reporting will not be undetected, contributing inexorably to non-efficient allocation of resources that exacerbate welfare loses.

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