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INVESTIGATION OF INCOME SMOOTHING AT THE COMPANIESLISTEDONTHESTOCK EXCHANGE BY THE USING INDEX ECKEL (CASE STUDY: TEHRAN STOCK EXCHANGE)

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ABSTRACT

Investors, financial analysts and consumers interested in more information have about income smoothing in investee companies. Accounting is one of the techniques that are currently used in earnings management is income smoothing. This represents a deliberate act by the management to reduce the volatility of earnings. We have tried to investigate income smoothing in companies listed on the Stock Exchange. And to compare it with similar cases in previous years. Companies and see how much used of the income smoothing as an accounting technique. So we tried a 9-year period (2001-2009) to examine smoothing. For this purpose, using a stratified random sample of 132 companies from formula companies listed was chosen in Tehran Stock Exchange. To close resemblance to the sample, the first group of companies on the Stock Exchange was classified by category, then the proportion of firms in each group, were elected members of different groups. Resolution was used mechanism for smooth and non-smoothing companies Eckel *model (coefficient of variation of a distribution of profits to sales). For this purpose, we have studied three levels of smoothing in net profit, gross profit, operating profit. And companies that have at least one level of profit required to smoothing have an income smoother we introduced with the previous results, we compared on the basis of the member companies of the number of firms smoothing was 78 and the number of companies, non-smoothing of 54 . Shows a slight increase compared to the previous research. However, we find that income smoothing is considered on three levels of profit.*

Keywords: Stock Exchange, Income smoothing, Investment, Earnings management

INTRODUCTION

Firms often attempt to control fluctuations in reported earnings and steer them to levels they consider desirable. Either managing reported figures to increase earnings when management thinks its initially planned term-end settlement targets (smoothing level figures) cannot be achieved or managing reported figures to decrease earnings when achievement of earnings higher than planned is certain may be implemented during a given fiscal period. This type of management accounting behavior is called income smoothing or income smoothing behavior. Provided that other conditions are identical, managers prefer smoothed income to income that fluctuates greatly. Smoothed income enables a firm to avoid discounting in the capital market owing to business performance fluctuation and simultaneously brings about desirable consequences with respect to institutional contracts the firm has entered into with stakeholders (financial covenants, delisting requirements, management compensation contracts, etc.). [2]

The idea that managers do prefer smoothed earnings is widely extended among practitioners and academics alike. Managers prefer a smooth earnings path, since lower firm risk as perceived by investors, is one of the most popular motivations for income smoothing. Given CEO career concerns and cost- benefit tradeoffs regarding the benefits of smoothing, we hypothesize that managers have incentives to smooth income in order to reduce idiosyncratic volatility.[3]

Corporate earnings management has been much in the news lately. For example, *Business Week* has recently run two cover stories, one titled "Who Can You Trust?" (October 5, 1998) and the other titled "The Numbers Game" (May 14, 2001), that suggest that the credibility of earnings reports is being eroded by earnings management. Arthur Levitt, Jr., chairman of the Securities and Exchange Commission (SEC), commented in 1998: "Too many corporate managers, auditors, and analysts are participants in a game of nods and winks. In the zeal to satisfy consensus earnings estimates and project a smooth earnings path, wishful thinking may be winning the day over faithful representation." 1 Earnings management means manipulating reported earnings so that they do not accurately represent economic earnings at every point in time. Earnings smoothing is a special case of earnings management involving inter temporal smoothing of reported earnings relative to economic earnings; it attempts to make earnings look less variable over time. Earnings smoothing is extensively documented (see Beidlerman 1973; Bannister and Newman 1996; Subramanyam 1996). Moses (1987) studies how variousfirm specific factors affect the extent of earnings smoothing. This raises the question we address: why is earnings smoothing so prevalent? If earnings are being smoothed, reported earnings must be sometimes higher than economic earnings and sometimes lower. It is not difficult to see why than economic earnings and sometimes lower. It is not difficult to see why managers may want to report inflated earnings. But it is a lot harder to explain why a manager report lower earnings than what he observes. Yet, numerous such instances have recently been discussed. For example, in 1998, the SEC delayed approval of the acquisition of Crestar Financial Corporation by SunTrust Banks, Incorporated until the company agreed to reduce loan loss reserves by $100 million and restate higher earnings for the past 3 years. The SEC also criticized W. R. Grace and Company for underreporting its1998 profits by $20 million. The SEC alleged that the company was attempting to exploit apparently diminishing marginal returns to reported earnings. When reported earnings are high, reporting even higher earnings tends to elicit a relatively small positive market reaction. The company may therefore want to "hide" some of its current earnings for reporting in a future period when earnings are lower and the marginal impact of a higher report is greater. Earnings smoothing can be either "artificial" or "real." Real smoothing involves decisions that affect cash flows and dissipate firm value. Examples include changing the timing of investments and providing promotional discounts or vendor financing to risky customers to pump up sales toward the end of the quarter. By contrast, artificial smoothing does not affect cash flows. This kind of smoothing is achieved primarily by using the reporting flexibility provided by Generally Accepted Accounting Principles (GAAP). 4 Real smoothing has costs that are obvious, whereas artificial smoothing has costs that are subtler, such as those related to loss of credibility or consumption of the manager's time in such activities.[1]

Some investors may have to sell their shares in the future due to (exogenous) liquidity reasons, such as an unexpected contingency. We assume that these liquidity investors are mostly shareholders of the firm. As they trade with informed investors, they lose money on average. In fact, it is their trading loss that compensates the informed investors for their information acquisition cost. Competition among the informed investors causes their expected trading profit to equal their information acquisition cost, producing zero ex ante expected profits. Thus, the resources devoted to information acquisition are a welfare loss

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absorbed mostly by the firm's shareholders. The key to the analysis is that, when the volatility of the firm's earnings is high, private information about the firm is more valuable, and more investors become informed. 5 This means higher expected losses for shareholders who trade for liquidity. Shareholders, therefore, abhor earnings volatility and pay less for firms with higher earnings volatility. [1]

The manager responds by smoothing earnings to affect market perceptions of earnings volatility and hence the firm's stock price. However, the market understands this in equilibrium and is not fooled. This means that there is no overall benefit from smoothing in equilibrium. The phenomenon persists none- the less because not smoothing when the market expects smoothing can result in the firm's stock price being lower than its true value. It is interesting that what causes smoothing in our analysis is the manager's concern about long-term stock price performance rather than just the current stock price. A "myopic" manager would simply inflate earnings. Smoothing reduces the expected value of the time series volatility of reported earnings. The effect of smoothing on volatility is state contingent in that it depends on the shocks to earnings realized in the future. We assume that these shocks are serially uncorrelated, so smoothing reduces measured time-series volatility of earnings because shocks in successive periods tend to offset each other. 6 If the shocks are positively serially correlated, it is possible for smoothing in early periods to increase the variability of reported earnings in later periods.[1]

Income smoothing has received considerable attention in the academic literature in the past one- hundred years (Buck master, 2001). In an early discussion, Hepworth (1953) suggests that owners and creditors of an enterprise will feel more confident with corporate management that is able to reports table earnings, than if considerable fluctuation of reported earnings exists (Hepworth, 1953, p.34). Academics have basically investigated on: (1) whether firms do actually smooth income and which firms are more prompted to smooth (e.g.: DeFond and Park, 1997); (2) how income smoothing is implemented (e.g.: Beidleman, 1973), and (3) why managers are interested in smoothing income numbers (e.g.: Ronen and Sadan, 1981).[3] ,[9],[10]

The Concept of Income-Smoothing

Income smoothing is the utilization of accounting discretion to reduce income stream variability (Fudenberg and Tirole, 1995). Smoothing moderates year-to-year fluctuations in income by shifting earnings from peak years to less successful ones, making earnings fluctuations less volatile (Copeland,1968). [3],[11],[12] As a simple definition, income Smoothing is a kind of intentional act committed by managers using special tools in accountancy for lowering profit fluctuations. Managers are able to influence Stock return and achieve goals such as job security, reward, and wealth increase of stockholders. Low profit fluctuations create a more favorable sensation in investors for investing in companies. Management of some companies deliberately manipulates items of financial statements in order to attract attention of investors aimed at pretending that their profitability is stabilized. [16]

Income smoothing is an Accounting technique to reduce variability at the discretion of the Director of the profits will be used. In other words, income smoothing fluctuations from year to year adjusted earnings. That makes the show less fluctuation in earnings during the fiscal year. [17]

The Accounting Problem at the Income Smoothing

Income smoothing has long been discussed as a management tactic. Here, income smoothing refers to "The equalization of income in each period to a certain level" (Itoh [2007], p. 207).

That is to say, it is behavior to curb fluctuations in income and cause income to approach the level where management's utility is maximized (Copeland [1968]). More specifically, management reduces income in periods when business performance is favorable and income is comparatively high and, by contrast, contrives to create income in periods when business performance is unfavorable and income is comparatively low (Beidleman [1973], Ronen and Sadan [1981], Lambert [1984]). [2],[6]

Accounting data in the form of annual securities reports and other financial reports, summary statements of financial results, and annual reports are used for the purpose of external analysis of these accounting policies 7 . Of particular importance, the significant accounting policies selected by firm's are presented in the Financial Overview section of annual securities reports. Confirmation and assessment of these policies can be considered to be the first step in analysis. Then, as much as possible, analysts eliminate the bias in accounting figures applied through the arbitrary selection of accounting policies, back calculate, and adjust the reported figures. Although it is extremely difficult to remove all bias using only externally disclosed available materials, by making this adjustment the analyst at the very least gets a glimpse of these technical accounting policies (Sakurai [2007]), and it becomes possible to close in on firms' real situations (Palepu et al. [2000]). [2],[7],[8]

Smoothing: Motivation and Effects

Income smoothing, which Arthur Levitt labeled ''cookie jar'' accounting in his 1998 speech, is not a new issue. Gordon (1964, 262) predicts that as long as managers have discretion over accounting choices, they smooth reported income and the rate of growth in income. His prediction was tested in several studies. By the late 1970s, evidence for income smoothing was plentiful (Beidleman 1973; Ronen and Sadan 1981). In a recent study, Graham et al. (2005) report, ''an overwhelming 96.9% of the survey respondents indicate they prefer a smooth earnings path.'' 3 Recent researches have enriched our understanding of managers' use of their reporting discretion, categorizing it as either (1) garbling or (2) efficient communication of private information. Managers may smooth reported income to meet the bonus target (Healy 1985) or to protect their job (Fudenberg and Tirole 1995; Arya et al. 1998). The contracting theory argues that income garbling is an equilibrium solution because the principal would otherwise pay a high premium to compensate the agent, who has the information advantage, for taking additional risk (Lambert 1984; Demski and Frimor 1999). In these circumstances, even if the contract is efficient, the communication has been garbled and thus the reported earnings are less informative about a firm's future earnings and cash flows. In contrast, other studies view income smoothing as a vehicle for managers to reveal their private information about future earnings (Kirschenheiter and Melumad 2002; Ronen and Sadan 1981; Sankar and Subramanyam 2001; Demski 1998). Such communication could be either active or passive. For example, Kirschenheiter and Melumad (2002) show that reported earnings have dual roles. The level of reported earnings allows investors to infer the level of permanent future cash flows. The fluctuations of reported earnings reduce confidence in the inferred permanent component. The dual roles cause manages smooth earnings. 4 Using Spence's (1973) signaling framework, Ronen and Sadan (1981) argue that only firms with good future prospects smooth earnings because borrowing from the future could be disastrous to a poorly performing firm when the problem explodes in the near term. [14], [13],[4] , [15]

The Cost of Income Smoothing

We have assumed that the discretion exercised by the manager does not have any real effects on the firm's performance. In practice, there will be real costs of smoothing, such as the cost of manipulating accounts and the cost of suboptimal decisions. We have assumed that these

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costs are zero when the manager manipulates earnings by less than and infinite when the manager manipulates earnings by more than*d*. We suspect that a continuous cost function will not alter the flavor of the results, although the extent of smoothing may be reduced.[1]

Opportunities for Income Smoothing

Authority in the field of accounting, including revenues and expenses that are creating opportunities for smoothing. The size and timing of revenues and costs of discretionary income smoothing plays an important role in the process. Optional items are those management has control over them and can delay them, and identified them to expedite removal or Register. Eliminated, reducing the cost of increased spending during the good years of successful and unsuccessful surgery procedures is desirable for a lot of discretionary spending. Also delay or expedite certain types of income are common in many companies.[18]

Benefits of Information Acquisition

We did not assume any public benefits to information acquisition. When information acquisition results in spillover externalities that lead to better decisions within the firm, some of the benefits of information acquisition will also accrue to shareholders (see Allen 1993; Boot and Thakor 1997; Allen and Gale 1999). Earnings smoothing should be less for such firms.[1]

Dividend Smoothing

Our rationale for earnings smoothing can be generalized to other measures of corporate performance, such as dividends. 20 In this model, reported earnings and dividends are identical. In a more general model with investment, earnings and dividends may differ. Earnings and dividends in such a model will each carry useful valuation-relevant information, with neither being a sufficient statistic for the other. In such a setting, our model could be interpreted as explaining both earnings and dividend smoothing. In fact, dividends can typically be smoothed more than earnings, and one does observe smoothing of dividends even relative to a (smoothed) reported earnings stream. This is consistent with the core intuition of our article.[1]

Earnings Smoothing or Earnings Inflation

Our manager smooth's earnings to influence investors' perceptions about earnings volatility. We require that the uncertainty in the volatility of earnings be high relative to the uncertainty in the mean of earnings, as formally stated in assumption 4. This assumption is critical to our results when there is trading between dates 1 and 2. 21 If we make the opposite assumption that uncertainty in the mean is high relative to the uncertainty in the volatility, the manager may have an incentive to influence investors' beliefs about the mean rather than the volatility and would inflate earnings to signal a higher mean. Assumption 4 characterizes the conditions under which the manager's incentive smooth earnings dominate the incentive to inflate earnings. [1]

Income-Smoothing Measure

The notion that companies deliberately smooth their profit was primarily proposed by HEPWORTH (1953). Hepworth defined concept of smoothing as follows: "More precisely, theory of income Smoothing is presented with following four assumptions:

1. Maximization of utility or management welfare is the criterion of company's managers for selecting among accounting methods.

2. Management utility improves by (a) its job security, (b) its reward growth rate, (c) growth rate of company size
3. Obtaining some portion of management objectives –as mentioned in assumption 2- depends on stockholders' satisfaction of company's performance
4. For being able to seek for their objectives, managers find it vital to stabilize the profit and attract stockholders' satisfaction about company's growth rate (or average return rate of stockholders' equities) [9]

IMMHOFF (1981) believes that income Smoothing is a special case of insufficient disclosure of financial statements. Income Smoothing is indicative of intentional attempt to disclose information in a manner that a profit trend with low fluctuations is reported [17]

ECKEL model is used to identify behavior of income smoothing. This index is not capable of identifying all companies which are attempting to smooth profits. In other words, if companies are partially successful in income smoothing, they are classified as non-smoothers based on this model. However, this index is regarded positive from a conservative point of view because companies classified as smoother would smooth their profits with a high confidence factor. Nonetheless, taking into account all characteristics and in comparison to other criteria of income smoothing, ICKEL index is considered as an acceptable criterion for objectives of the present study. A company will be categorized as smoothing company if it is smoother in one of gross or net operational levels. ICKEL model was used in the current research due to the following reasons: [9]

i. ECKEL model does not resort to subjective judgments for predicting profit and estimating costs.
ii. ECKEL model uses information of a period of several years instead of only one year.
iii. ECKEL model simultaneously takes into account impacts of several variables rather than analyzing their impacts individually [9]

This index has been applied by ICKEL in 1981, MOASSES (1987), ALBRESHT (1990), ASHARI (1994), MOLLANAZARI and YAZDANI (2006) and many other domestic and foreign researchers. In this model, coefficient of variations (CV) or dispersion or variability coefficient is used as one of relative dispersion indices. The respective coefficient is obtained by dividing a distribution index called "standard deviation" to a central index called "mean".

Theoretical framework of ICKEL model defines the smoothing organization as a unit that deploys several accounting variables in a way that the resultant of the factors minimizes profit fluctuations. According to this model, a company is regarded as smoother if its ratio of dispersion coefficient during a period of gross, operational, or net profit to dispersion coefficient during a sales period is less than 1. In the current study, the companies which have taken measures for smoothing in at least one of profit levels (specific (net), operational, and unspecific (gross)) will be classified as smoothers. In other words, smoothing index is evaluated as below:

$CY = CV\Delta I/CV\Delta S$

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[17]Where, CVΔI is dispersion coefficient of profit variations in the i-th company in the time period of research and CVΔS is dispersion coefficient of sales variations in the i-th company in the same period. If CY≥1, the company has not smoothed its profit and if CY<1, it has smoothed its profit [20]. Selection mechanism of MASHHAD Packaging Company - as an instance of Incomesmoothing companies in specific (net), operational, and unspecific (gross) profit levels - is presented in tables 1, 2, and 3 respectively.

Tables 1, 2, and 3 represent selection mechanism of Mashhad Packaging Company as a profit-smoother: [17]

Table 1. Smoothing in net (specific) profit level

Year	*Specific (Net) Profit*	*Profit Variations*	*Sales*	*Sales Variations*
2001	11,297.80	-	91,341.90	-
2002	1,083.00	-10,214.80	90,632.00	-709.90
2003	1,650.00	567.00	84,304.00	-6,328.00
2004	79.00	-1,571.00	73,096.00	-11,208.00
2005	-5,926.00	-6,005.00	98,753.00	25,657.00
2006	2,773.00	8,699.00	108,955.00	10,202.00
2007	-14,277.00	-17,050.00	73,374.00	-35,581.00
2008	3,406.00	17,683.00	136,523.00	63,149.00
2009	-4,718.00	-8,124.00	63,608.00	-72,915.00
Sum	-	-16,015.80	-	-27,733.90
Standard deviation	-	8,645.50	-	40,360.49
Mean	-	-2,001.98	-	-3,466.74
Dispersion Coefficient (CV)	-	-4.31848		-11.6422

CY = CVΔI/CVΔS → CY = -4.3184/-11.6422 = 0.3709

Since the respective index is smaller than 1. Therefore, it can be asserted that this company has smoothed in specific profit level. [17]

Table 2 represents selection mechanism of Mashhad Packaging Company as profit smoother in operational level:

Table 2. Smoothing in Operational profit level (Part-I)

Year	*Operational Profit*	*Profit Variations*	*Sales*	*Sales Variations*
2001	*13,276.40*	-	*91,341.90*	-
2002	*2,030.00*	*-11,246.40*	*90,632.00*	*-709.90*
2003	*3,450.00*	*1,420.00*	*84,304.00*	*-6,328.00*
2004	*13,276.40*	*-1,796.00*	*73,096.00*	*-11,208.00*

Table 2. Smoothing in Operational profit level(Part-II)

Year	*Operational Profit*	*Profit Variations*	*Sales*	*Sales Variations*
2001	*13,276.40*	-	*91,341.90*	-
2002	*2,030.00*	*-11,246.40*	*90,632.00*	*-709.90*
2003	*3,450.00*	*1,420.00*	*84,304.00*	*-6,328.00*
2004	*13,276.40*	*-1,796.00*	*73,096.00*	*-11,208.00*
2005	*2,030.00*	*-6,575.00*	*98,753.00*	*25,657.00*
2006	*3,450.00*	*9,732.00*	*108,955.00*	*10,202.00*
2007	*13,276.40*	*-6,899.00*	*73,374.00*	*-35,581.00*
2008	*2,030.00*	*7,164.00*	*136,523.00*	*63,149.00*
2009	*3,450.00*	*2,368.00*	*63,608.00*	*-72,915.00*
Sum	*13,276.40*	-	-	-
Standard deviation	*2,030.00*	*7,269.71*	-	*40,360.49*
Mean	*3,450.00*	*-729.05*	-	*-3,466.74*
Dispersion Coefficient (CV)	*13,276.40*	*-9.97148*		*-11.6422*

CY = CVΔI/CVΔS → CY = -9.97148/-11.6422 = 0.8564

As the respective index is less than 1, it can be therefore stated that this company has smoothed its profit in operational level.

Table 3 demonstrates selection mechanism of Mashhad Packaging Company as profit non-smoother in unspecific (gross) level:[17]

Table 3. Non-smoothing in gross (non-specific) profit level

Year	*Gross Profit*	*Profit Variations*	*Sales*	*Sales Variations*
2001	*11,400.60*	-	*91,341.90*	-
2002	*1,294.00*	*-10,106.60*	*90,632.00*	*-709.90*
2003	*2,854.00*	*1,560.00*	*84,304.00*	*-6,328.00*
2004	*1,976.00*	*-878.00*	*73,096.00*	*-11,208.00*
2005	*-4,600.00*	*-6,576.00*	*98,753.00*	*25,657.00*
2006	*3,529.00*	*8,129.00*	*108,955.00*	*10,202.00*
2007	*-1,890.00*	*-5,419.00*	*73,374.00*	*-35,581.00*
2008	*7,729.00*	*9,619.00*	*136,523.00*	*63,149.00*
2009	*11,348.00*	*3,619.00*	*63,608.00*	*-72,915.00*
Sum	-	-	-	*-27,733.90*
Standard deviation	-	*7,067.63*	-	*40,360.49*
Mean	-	*-6.58*	-	*-3,466.74*
Dispersion Coefficient (CV)	-	*-1074.92*		*-11.6422*

CY = CVΔI/CVΔS → CY = -1074.9/-11.6422 = 0.3709

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Since the respective index is less than 1, it can be therefore stated that this company has smoothed its profit in non-specific (gross) level. [17]

Taking into account the fact that the companies will be regarded as profit smoothers if they smooth their profit in one of the aforementioned levels (net, operational, and gross), the respective company is an income-smoothing organization because its CV ratios are all below 1. The objective in this model is specifically synthetic smoothing of profit. Natural income-smoothing is not essentially related to any managerial action or decision. [17]

Furthermore, actual income-smoothing also represents an economical situation which is not analyzed in the scope of the current research. But on contrary, synthetic smoothing is in fact indicative of intentional actions of management for smoothing time series of reported profits, which evidently leads to deviation in provision of economical facts. Another issue needed to be emphasized is the fact that ICKEL's theoretical framework is merely used for identifying successful efforts of profit-smoothing. In other words, this model will not be able to identify those organizations which try to smooth their profit but fail in this regard. [17]

Research Sample

Implementation of any research requires spending time and money; for the same reason, it is not possible to investigate the whole population like in a census. Thus, taking into mind this fact, the researchers decide to acquire the potential information through sampling and using analysis of data obtained from research sample. Finally, this information is attributed to the whole population through extrapolation or generalization. [5]

Our desired space and domain determines the statistical societies (populations); therefore, statistical society is defined as: "A number of desired respective elements which have at least one specific and joint feature [5]

Accordingly, statistical population in the current research consists of all companies adopted in Tehran Stock Exchange Market during the years 2001 to 2009, except for investment companies, financial intermediaries, and banks. The companies studied in the research assume the following characteristics:

1. They have been accepted in Tehran Stock Market before 2001
2. Their fiscal year ends to 12.29.
3. Their dealing symbols have not been closed more than three times a year
4. These companies have the required conditions for evaluation of variables and also provide the possibility for having access to their information and financial statements

According to abovementioned conditions, around 202 companies are members of statistical society in the current research. But, the respective number is obtained via limited society sampling formula as below:[5]

$$\mathbf{n} = \frac{\mathrm{N}\mathrm{Z}^2_{\alpha/2}\mathrm{pq}}{\varepsilon^2(\mathrm{N}-1) + \mathrm{Z}^2_{\alpha/2}\,\mathrm{pq}}$$

$$\boldsymbol{n} = \frac{\mathbf{200}\times(\mathbf{1.96})^2\times\mathbf{0.5}\times\mathbf{0.5}}{(\mathbf{199})\times(\mathbf{0.05})^2+(\mathbf{1.96})^2\times\mathbf{0.5}\times\mathbf{0.5}} = \mathbf{131.75} \cong \mathbf{132}$$

Source of Data

In order to acquire the information of selected companies, the data available in Tehran Stock Exchange Market will be used (including DENA SAHM, TADBIRPARDAZ, and

RAHAVAR NOVIN software). In addition, data of Central Bank and associated journals will be also used for having access to information related to the variables of the research.

CONCLUSION

Overall, in this study we have tried to explore the concepts of income smoothing. And we evaluated the phenomena of income smoothing as an accounting technique, at the Tehran Stock Exchange. And the results compared with previous research that has been done to rule on this issue. According to the results of this study, 59% of companies have attempted to income smoothing, with 30% of the amount above 82 years and 85 years is 54%. 52 percent of companies on the net profit, 41% of the gross profit and 43 percent of operating profit to income smoothing and they generally can be said that only 34 percent of the company Have at all levels benefit an income smoothing.. Furthermore, it was inferred through carrying out this research that approximately 59% of companies adopted in Tehran Stock Exchange Market have smoothed their profits. Hence, no remarkable contradiction is observed in terms of percentage of income-smoothing companies as compared to the previous research considering the time difference of two researches. So we can conclude that income smoothing in companies listed on the Stock Exchange, and each year the trend has become more corporate. But the trend is not clear. The results of this comparison are summarized in the table shown below. Summary of information and comparison with former research are presented below:

Table 4. Compared with previous results

Year	*Smoothing*	*Non-Smoothing*	*Smoothing in net profit level*	*Smoothing in Operational profit level*	*Smoothing in gross profit level*	*Smoothing in all three levels*
2011	59%	41%	52%	43%	41%	34%
2007	54%	46%	36%	35%	34%	13%

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APPENDICES

A: Member companies of sample: Using a random cluster sampling convention formula is obtained.

Table 5. Member companies of sample

Industry Name	*Industry code*	*Number of population*	*Number of sample*
Manufacture of rubber and plastic products	25	6	3
Food and beverage: Sugar Food except sugar	15 - -	 13 16	 9 11
Extraction of meta lores	13	3	2
Manufacture of textiles	17	3	2
Manufacture of basic metals	27	11	7
Manufacture of paper and paper products	21	4	2
Construction materials and chemical products: Chemical Drug	24 - -	 25 20	 17 13
Sayrmhsvlat manufacturing non-metallic minerals: Cement, lime and plaster Ceramic tiles Other non-metallic minerals	26 - - -	 13 10 14	 9 7 9
Construction machinery and equipment not classified: Automobile and Parts Machinery and equipment	29 - -	 20 10	 13 7
Manufacture of electrical machinery and apparatus not classified	31	6	3
Fabricated Metal Products except Machinery	28	10	7
Several major industrial convention	39	3	2
Communications	32	3	2
other	-	11	7
Sum	-	201	132

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Table 6. Flexible and inflexible companies

Name of company	*flexible*	*inflexible*	*Name of company*	*flexible*	*inflexible*	*Name of company*	*flexible*	*inflexible*
Abzar Mahdi		*	Daru Osveh	*		Pars Fireproof product		*
Afasat		*	Daru Amin		*	Iran Ferrosilicon	*	
Alborz Darou		*	Daru Jaberebn Hayan	*		Fanarsazi Khavar		*
Italran	*		Daru Damlaran		*	Fanar Sazi Zar		*
Iran Khodro Diesel		*	Daru Razak		*	Fiber Iran	*	
Absal	*		Daru Sazi Kosar	*		Ghand Isfahan		*
Abgineh	*		Dasht Morghab		*	Ghand Piranshahr	*	
Azarab		*	Pars Industrial Smoke		*	Ghand Torbat Jam		*
Ahangari Tractor	*		Iran Radiator	*		Ghand Sabet Khorasan	*	
Iran Packaging		*	Tractor Casting	*		Khorasan Sweet Sugar		*
Mashhad Packaging		*			*	Qazvin Sugar		*
Butan		*	Xamiad		*	Neishabor Sugar		*
Behnoosh		*	SAIPA	*		Cable Alborz		*
Biscuit Gorji		*	Etebar Iran	*		Cable Bakhtar		*
Pars Electric	*		Alborz	*		Iran Cable Production		*
Pars Pamchal		*	Petrochemistry	*		Iran Carburetor	*	
Pars Khazar	*		Sakhteman	*		Iran Carton		*
Pars darou	*		Ghadir	*		Mashhad Carton		*
Pars Seram	*		National Development Group		*	Esfahan Tile	*	
Pars minoo		*	Sarma Afarin		*	Pars Tile	*	
Paksan		*	Soliran	*		Taksoram Tile	*	
Isfahan Petrochemistry	*		Orumieh Cement	*		Hafez Tile		*
Abadan Petrochemistry	*		Tehran Cement	*		Sina Tile	*	

Khark Petrochemistry	*		Khazar cement	*		Kalsimin		*
Shazand Petrochemistry	*		Sepahan Cement	*		Bahman Group	*	
Farabi Petrochemistry		*	Shargh Cement	*		Sadid Industrial Group		*
Pashm bafi Toos	*		Shomal Cement		*	Glocosean		*
Pashm Shisheh Toos	*		Sufian Cement		*	Sahand Rubber	*	
Plastic Shahin		*	Ghab Cement	*		Lamiran	*	
Pump Iran		*	Khuzestan Cement	*		Pak Dairy	*	
Payam	*		Sina Daru		*	Loab Iran	*	
Tamin Maseh	*		Sugar	*		House appliances	*	
Behshahr Industries Development	*		Shahd	*		Looleh and Machin sazi	*	
Toli Pers		*	Shahd Iran	*		Machin Sazi Arak		*
Tehran Daru		*	Shisheh Ghazvin		*	Mehvar sazan		*
Tehran Chemistry		*	Shisheh Hamedan	*		Bahonar Copper	*	
Chin Chin		*	Sina Chemical		*	Iran Zinc Mines	*	
Chini Iran	*		Fars Chemical		*	Iran Salts Mines	*	
Khak Chini Iran	*		Iran Chemical Industries	*		Madani Damavand	*	
Khoak Dam Pars		*	Sanati Baez	*		Mohandesi Firooza		*
Iran Data Processing	*		Sanati BEHSHAHR		*	Nasaji Brojerd		*
Daru Abureihan	*		Injection product	*		Naft Behran	*	
Nord Aluminum		*	Iran fireproof product	*		Naft Pars	*	
Steel Parts	*		Niroo Moharekeh	*		Vaziran	*	