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Gross profit manipulation through classification shifting

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ABSTRACT

The existing research on classification shifting has examined the manipulation of core earnings through shifting of core expenses to special items keeping the GAAP earnings constant. We examine the manipulation of gross profits through shifting of costs of goods sold to operating expenses keeping core earnings constant. We find that managers, on average, misclassify costs of goods sold as operating expenses in order to just meet prior period's gross margin. We also find that managers shift costs of goods sold to both selling, general and administrative expenses and research and development expenses. However, they are more likely to shift costs of goods sold to the latter.

1. Introduction

Classification shifting is the misclassification of items in the income statement. McVay (2006) suggests that managers misclassify core expenses as special items in order to inflate core earnings with one of the intentions being to meet or beat analysts' forecasts. Subsequent literature (e.g., Fan, Barua, Cready, & Thomas, 2010; Fan & Liu, 2017; Haw, Ho, & Li, 2011) has examined other incentives behind this form of misclassification and the role of firm and country level governance in curbing this behaviour. For example, Abernathy, Beyer, and Rapley (2014) suggest that managers use classification shifting as a substitute for both accruals earnings management and real earnings management. In addition, classification shifting is likely to be more prevalent in the countries with weak investor protection (Behn, Gotti, Herrmann, & Kang, 2013). We take this literature forward and focus on the manipulation of gross profits rather than core earnings. Specifically, we examine whether managers misclassify cost of goods sold (COGS) as operating expenses in order to inflate gross profits.

The literature (Giroux, 2004; Weygandt, Kieso, & Kimmel, 2005) suggests that gross margin is an important performance metric signalling the efficiency of core operations of a firm. Gross margin not only gives relevant and distinct information to investors, but it is also perceived as more sustainable than core earnings due to its closer proximity to sales. Managers can thus have reasonable motivation to manipulate the gross margin figure. Anecdotal examples exist to support this claim. The Securities Exchange Commission has found firms engaging in the manipulation of gross margins. e.g., Fischer Imaging Corporation had allegedly misstated its gross profits in the years 2000 and 2001 in such a manner.[1]

Our tests of misclassification keep both GAAP earnings and core earnings constant. This differentiates our study from that of Fan and Liu (2017). They conclude that COGS is shifted to special items in order to inflate gross profits. However, such a misclassification inflates core earnings as well. By keeping core earnings constant, we examine the manipulation of gross profits independent of the manipulation of core earnings.

We find that managers shift COGS to operating expenses in order to manipulate gross profits upwards. We also examine whether managers prefer to shift COGS to a particular type of operating expenses viz. research and development expenses (R&D) or selling, general and administrative expenses (SG&A). Due to the differences in the nature of industries and accordingly in the nature of R&D, it is difficult for FASB to prescribe in detail costs and activities includable in R&D.[2] Therefore, the level of discretion with management for including a cost in R&D is high (Skaife, Swenson, & Wangerin, 2013). Further, there is evidence that investors view R&D costs favourably (Chan, Martin, & Kensinger,

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[1] The SEC states "….Fischer improperly classified labor and overhead expenses associated with its service business as other operating expenses rather than costs of sales. Because of their improper classification, Fischer failed to include these expenses in its calculation of gross profits. As a result, Fischer materially overstated its gross profits in its press releases and filings with the Commission relating to the relevant periods. Fischer knew, or was reckless in not knowing, about its misstatement of gross profits." (https://www.sec.gov/litigation/admin/33-8503.htm, AAER No. 2134, November 15, 2004)

[2] Accounting Standards Board (FASB). 1974. Statement of Financial Accounting Standards No. 2: Accounting for Research and Development Costs. Stamford, Conn.: FASB.

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1990; Skaife et al., 2013). Accordingly, we hypothesize that due to a relatively vague nature of R&D, shifting of COGS to R&D will be more as compared to that to SG&A. Our findings indicate the same. We also find that managers are more likely to shift COGS to R&D than to SG&A in order to just meet prior year's gross margin.

Our study contributes to the burgeoning literature on classification shifting. To the best of our knowledge, ours is only the second study (after Fan & Liu, 2017) to have examined the manipulation of gross profits through the misclassification of COGS. However, unlike Fan and Liu (2017), we examine shifting of COGS to operating expenses like R&D and SG&A. Probably auditors may find it tough to verify the correct classification of expenses. Further, they may put fewer efforts to undo managers' actions since there is no change in the bottom-line (McVay, 2006; Nelson, Elliott, & Tarpley, 2002). That is why managers may go ahead and manipulate gross profits through misclassification to give a favourable view of their core profitability.

In the next section, we review the relevant literature and discuss our hypotheses. Next, we explain the methodology and the estimation models adopted. We then move on to explaining the sample and the results. We conclude in the last section.

2. Literature review and hypotheses development

Earnings management presents a picture of the economic condition of a firm that is different from the reality. Prior literature has focused on three earnings management mechanisms, Accruals Management (see Healy, 1985; Jones, 1991; McNichols & Wilson, 1988), Real Activities Management (see Bushee, 1998; Dechow & Sloan, 1991; Gunny, 2010; Roychowdhury, 2006) and Classification Shifting (Fan et al., 2010; Haw et al., 2011; McVay, 2006). Accruals management involves inflating current period earnings at the cost of future earnings by either income-acceleration or expense-deceleration. Real activities management involves manipulation of economic activities such as over-production of inventory or reduction of discretionary spending. Classification shifting involves the deliberate misclassification of income statement items in order to inflate the sub-aggregates (gross or core earnings) while maintaining the aggregate (net earnings) constant.

The literature on classification shifting has primarily studied the shifting of core expenses to special items in order to inflate core earnings keeping GAAP earnings constant. McVay (2006) finds that managers shift operating expenses to income-decreasing special items in order to inflate core earnings. However, she finds that investors are unable to understand the impact of such shifting. Alfonso, Cheng, and Pan (2015) support her argument and find that market over-prices core earnings of the firms engaging in shifting. Managers are also likely to shift operating expenses to income-decreasing discontinued operations (Barua, Lin, & Sbaraglia, 2010), and amongst the segments within a firm (Lail, Thomas, & Winterbotham, 2014). Fan et al. (2010) observe that shifting is more likely to happen in the fourth quarter than in the first three quarters. The existing research (Abernathy et al., 2014; Fan et al., 2010) also suggests that managers use classification shifting as a substitute for both accruals earnings management and real earnings management. Further, classification shifting is likely to be more prevalent in the countries with weak investor protection (Behn et al., 2013). This opportunistic behavior of managers is consistent with the evidence that the placement of a line item in the income statement matters to investors and affects stock valuation (Bartov & Mohanram, 2014). However, to the best of our knowledge, no study has examined the manipulation of gross profits by shifting of costs of goods sold (COGS) to operating expenses keeping core earnings constant.

Gross profits are calculated as the difference between sales and COGS. It is the closest line item to sales, which indicates profitability of the firm. Gross profits form a major part of the sustainable or operating income of a business and are unaffected by the frequency and magnitude of the reported non-recurring and unsustainable special or extraordinary items in the income statement. It directly signals out the efficiency of a firm's operations (Giroux, 2004), and the relation between the input and output prices. Analysts view the decline in the gross margin as unfavourable (Graham & Dodd, 1934). The gross margin also suggests how effective the pricing policies and purchasing function are (Weygandt et al., 2005). Despite its importance as a performance indicator, there is a dearth of research on its manipulation.

A significant issue is that if managers shift COGS to other operating expenses, do investors find the latter figure as less value relevant? McVay (2006) suggests that as per the FASB Accounting Concept No.5, each item in the income statement provides distinct information either individually or as a part of a group of items grouped based on similar characteristics. Importantly, investors tend to recognise the distinction between the line items and accordingly attach different relative importance to the different line items in the income statement (Bradshaw & Sloan, 2002; Davis, 2002; Elliott & Shaw, 1988; Fairfield, Sweeney, & Yohn, 1996; Francis, Maydew, & Sparks, 1999; Lipe, 1986). Ohlson and Penman (1992) support this view for the prediction of returns in the short term. Further, in terms of sustainability of the item, the closer it is to the sales in the income statement higher is its sustainability and permanence (Fairfield et al., 1996; Lipe, 1986). Further, Lev and Thiagarajan (1993) suggest that gross margin has more information content as compared to net earnings with respect to the persistence of earnings and the value of a firm. While Abarbanell and Bushee (1997) and Ou and Penman (1989) find that gross margin and the one-year-ahead earnings are significantly related, the former find that no such relation exists between the selling, general and administration expenses (SG&A) and the one-year-ahead earnings.

Therefore, we can infer that gross profits not only give relevant and distinct information to investors, these are also perceived as more sustainable than core earnings due to its closer proximity to sales. Furthermore, as discussed above, it is considered more informative with respect to the persistence, the prediction of short-term earnings and as a firm value measure. Management can thus be said to have reasonable motivation to manipulate the gross margin figure.

Anecdotal examples exist to support our claim. The first is of Fischer Imaging Corporation, which was alleged by the Securities Exchange Commission to have misstated its gross profits figure in the years 2000 and 2001 in such a manner. Similarly, DHB Industries was alleged to have tampered with its gross profits and net income figures in the earnings releases and filings in the period 2003 to 2005.[3] OCZ Technology Group Inc. was also accused of tampering with the gross margin figures between 2010 and 2012.[4]

Fan and Liu (2017) have empirically established that management takes action to manipulate gross profits. They segregate core expenses into its two components, COGS and SG&A, and study the shifting of each component to special items for meeting distinct objectives. They find that in order to meet the gross margin benchmark of the prior period, only COGS, and not SG&A, is shifted to special items. Accordingly, they establish that managers manipulate gross profits. This shifting of COGS is, however, to special items and thereby core earnings are also manipulated by default. We study the shifting of COGS to R&D and SG&A where only gross profits are manipulated, and core earnings remain constant.

Given the importance attached to gross profits as a distinct line item in the income statement by investors and management, and the lower cost of engaging in shifting as compared to other earnings management techniques, we hypothesize that managers engage in classification shifting in order to inflate gross profits keeping core earnings constant.

H1. : Managers misclassify costs of goods sold as operating expenses.

The literature on shifting also establishes that managers have incentives to meet or beat earnings benchmarks (Barua et al., 2010; Fan

[3] https://www.sec.gov/news/press/2011/2011-52.htm

[4] https://www.sec.gov/news/pressrelease/2015-234.html