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A Perspective On Segment Reporting Choices And Segment Reconciliations

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Abstract

In 2014, segment reporting gained third place in SEC comment letters. This article reviews the history of segment reporting including segment reporting choices and segment reconciliations, the current concerns as the level of detail in segment disclosures varies widely across organizations, the value relevance of segment reconciliations and its market consequences, and the importance of segment reporting to management. The following are highlights of the manuscript:

The third-most-common area discussed in SEC comment letters: segment reporting.

The application of SFAS131: the whole may not equal the sum of its parts.

The level of detail in segment disclosures varies widely across organizations.

Segment reconciliation adds value to consolidated earnings.

Segment reconciliation can have significant market consequences.

Additional guidance on segment reporting may be beneficial and necessary in the future.

Keywords: Segment Reporting, Segment Reconciliation, SFAS 131

1. Introduction

1.1 Segment Reporting Choices

The Financial Accounting Standards Board (FASB) first issued the Statement of Financial Accounting Standards No. 14 (SFAS 14), "Financial Reporting for Segments of a Business Enterprise" in 1976, which required firms to report certain financial information using the 'industry approach' by defining industry segments and also geographic segments in the financial statements.

The FASB began reassessment of segment reporting in 1993 after financial statement users raised concerns over the quality of segment reporting under SFAS 14. The American Institute of Certified Public Accountants (AICPA) Committee on Financial Reporting and the Association for Investment Management and Research (AIMR) stressed the importance of segment information and the shortcomings of SFAS 14 (AIMR 1993; AICPA 1994). These groups argued that it was important for a company to present segment data in the same way it organizes and manages its business, and criticized SFAS 14 for being too vague and circumventable.

The current segment reporting regime, implemented in 1997, is regulated by Statement of Financial Accounting Standards No. 131, *Disclosures about Segments on Enterprise and Related Information* (SFAS 131). Rather than the SFAS 14 segment-reporting regime derived from the notion of industry and geographic segments, SFAS 131 introduced a new model for segment reporting termed the "management approach." This new approach focuses on the way the chief operating decision-maker organizes segments within a company for making operating decisions and assessing firm performance.

Based on a FASB assumption that a primary objective of financial reporting is to help investors, creditors, and others assess the amount and timing of prospective cash flows (FASB 1978), this change in reporting requirements was expected to provide financial statement users with a better understanding of a firm's overall performance, thereby improving their ability to predict future cash flows (FASB 1997; AIMR 1993; AICPA 1994). Subsequently, in 2006, the

International Accounting Standards Board (IASB) issued International Financial Reporting Standard 8 (IFRS 8), ‘Operating Segments’. IFRS 8 aligns segment reporting with the requirements of SFAS 131 by requiring firms to implement the ‘management approach’ to disclose the financial performance of its operating segments. The IASB believes that the management approach benefits users by allowing them to see through the eyes of management. Even after 15 years post implementation of the current segment reporting regime, the securities Exchange Commission (SEC) is taking segment reporting seriously (AICPA conference, 2012). For example, in June 2013, the SEC alleged that PACCAR Inc. failed to report its operating results as required under segment reporting requirements.

Under the SFAS 131 reporting regime, aggregated segment earnings may be reported using non-traditional Generally Accepted Accounting Principles (GAAP) measurements, as long as these are measures that the firm uses internally, while consolidated firm-level earnings must be reported with traditional GAAP measurements, even if a firm does not use these measurements internally. As a result, the aggregated segment earnings reported may not necessarily equate to a firm’s consolidated financial information exactly. In other words, the whole may not equal the sum of its parts. Consequently, firms are required to report a segment reconciliation between aggregated segment-level earnings and consolidated firm-level earnings, if they differ. Alfonso, Hollie and Yu (2012) show that, on average, there are significant differences between reported consolidated firm-level and aggregated segment-level earnings when differences exist.

The current prescribed segment reporting standard, after years of application, is still debated in the accounting literature (e.g., Albrecht & Chipalkatti, 1998; Nichols & Gallun, 1998; Berger & Hann, 2003; Botosan & Stanford, 2005). Some aspects of its approach have been examined and the results are mixed. Botosan and Stanford (2005) find that, whereas SFAS 131 has reduced analysts’ information acquisition costs, it has also led to greater reliance on public information, resulting in greater overall uncertainty. In addition, an increase in the magnitude of the error in the mean earnings forecast suggests that analysts are less accurate post-SFAS 131. In contrast, Berger and Hann (2003) find that SFAS 131 segment disclosures help analysts develop more accurate earnings forecasts.

Unlike most of the prior research, this paper focuses on the importance of required segment reconciliations that are the focus of studies by Alfonso et al. (2012) and Hollie and Yu (2012). We provide supplementary discussion on how segment reporting choices may affect the profession.

2. Segment Reconciliations

Segment reconciliation involves the reconciliation of aggregated segment earnings with firm-level consolidated earnings. Such reconciliation may involve issues with earnings measurement, including: (a) variations between management determined performance measurements at the segment level and traditional GAAP earnings measurements at the firm level, (b) unreportable segments, and (c) unallocated items such as costs, expenses, revenues, or gains. These issues with segment reconciliation affect how users interpret segment reports. Figure 1 illustrates the segment reconciliation process. The level of detail that firms provide in their segment disclosure varies widely across organizations.

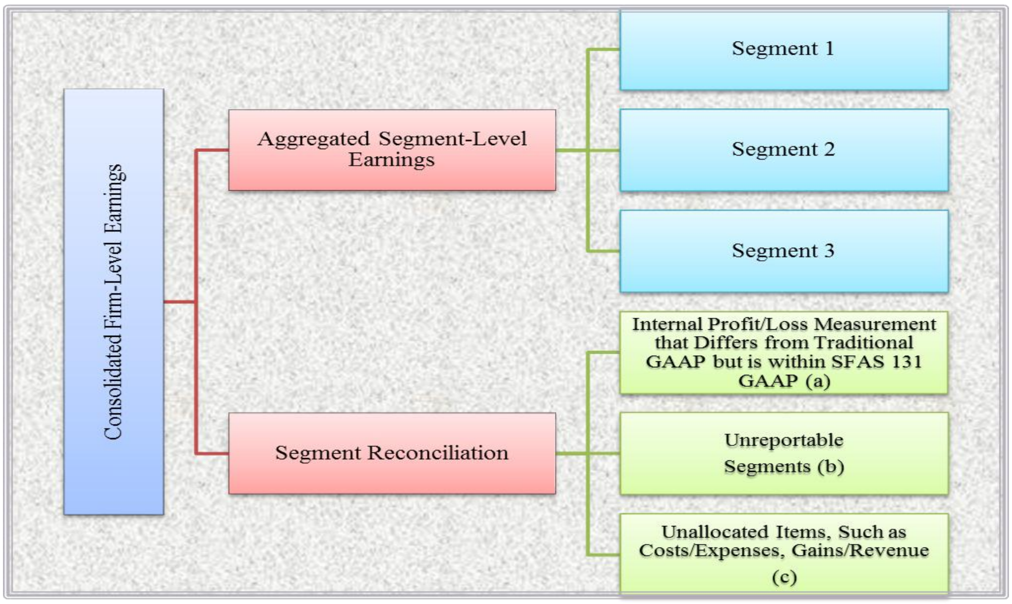

Figure 1. Illustration of Segment Reconciliation

2.1 An Example of Segment Reconciliation

The "Goodyear Tire & Rubber Company Segment Disclosure Excerpt: Segment Information" report reflects how firms organize strategic business units (SBUs) to meet customer requirements and global competition, and define segments on a regional basis. In the report, the firm measures the results of operations based on net sales to unaffiliated customers and segment operating income. Each segment exports tires to other segments. The financial results for each segment exclude sales of tires to other segments, but include operating income derived from such transactions. Their management believes that total segment operating income is useful, because it represents the aggregate value of income created by SBUs, and excludes items not directly related to the SBUs for performance evaluation purposes. The total segment operating income is the sum of the individual SBUs' segment operating incomes.

In Appendix A, we provide an excerpt of Goodyear Rubber & Tire Company's report that relates to segment reconciliation, for illustrative purposes. While the company's consolidated income statement reports an income of $440 million before income tax, its total reported aggregated segment income is significantly greater, at $1,248 million, representing a difference of $808 million (almost three times its consolidated earnings), which requires reconciliation. This significant variation between the segment-level and firm-level earnings make it clear why a detailed, rather than vague, reconciliation may be necessary in order for outsiders of a firm to truly understand the segmented versus consolidated financial information reported by the firm.

As discussed in the footnote of segment measurement and reconciliations, Goodyear Tire & Rubber Company groups the reconciling items into corporate costs (item c in Figure 1), methodology differences (item a in Figure 1), and timing (item a in Figure 1). There are significant amount of combinations of these items as shown in Figure 1. Both management and the auditor must commit to ensure adequate transparency of the reconciliations.

2.2 Concerns about Sfas131

SFAS 131 is intended to provide firms with the opportunity to employ alternative approaches for financial presentation that let investors see through the eyes of management of a firm. James J. Leisenring, a former member of FASB, supported the use of the management approach to identify reportable operating segments, but dissented from it because its ambiguity in outlining the proper measurements of segment earnings might lead to decreased comparability across firms (source: SFAS 131 FASB pronouncement). In fact, some professionals argue that ambiguity is inherent to SFAS 131 and refer to SFAS 131 as the "Unstandard Standard" because of the potential lack of consistency, comparability, and reliability of segment reporting for firms and across firms within industries (Reason, 2001).

SFAS 131 also provides firms with the opportunity to choose how to present segment information. We provide three examples of how firms present segment information differently within the guidelines of SFAS 131. In the SFAS 131 implementation year, Caterpillar Inc. clearly stated in its 1998 10-K that its segment reporting is of limited usefulness to external readers of its financial statements. It disclosed traditional GAAP-based financial results for all business lines in its MD&A, but did not provide details on the reconciliation between firm-level and segment-level measurements. A more recent example, Apple Inc., uses the same accounting policies in reporting on various segments and on its consolidated firm earnings. Another example is Briggs and Stratton's 2014 annual report that states "adjusted financial results are non-GAAP financial measures." Briggs and Stratton believes and states in the report that this information provided by the non-GAAP financial measure is meaningful for comparisons between peer companies. Briggs and Stratton also states that it utilizes non-GAAP financial measures as a guide in the firm's internal decision process, such as forecasting, budgeting, and long-term planning. In the same report, Briggs and Stratton states that 'such adjusted financial results are not intended to replace our GAAP financial results and should be read in conjunction with those GAAP results. Such accepted diversified practice in reporting segment information could negatively affect the comparability and transparency of the financial statements. Subsequently, it may require more expertise from external users to be able to see through the eyes of management because it may reduce shareholders' ability to interpret segment disclosures.

In addition, SFAS 131 makes it possible for management to "cherry-pick" financial measures or reorganize segments for financial reporting purposes. In Figure 2, we summarize the major benefits and shortcomings involved in using segmented information in financial statements.

Figure 2. Benefits and Shortcomings of the Management Approach

3. Importance to Management

It is crucial that management gives close scrutiny to segment reconciliation for the following reasons, which have also been documented in the recent accounting literature (Alfonso, Hollie & Yu., 2012; and Hollie & Yu, 2012).First, upper-level management should be aware that segment managers may have incentives to manipulate segment earnings and segment reconciliation, as the segment managers' compensation may be significantly tied to segment profitability rather than just overall firm profitability. Using 1,202 firms and 3,858 firm year observations covered in Compustat Segment and Annual Industrial and Research files for 1999-2006, Alfonso et al., (2012) examines the segment reconciliation differences (SRDs), defined as the difference between the aggregated segment earnings and consolidated earnings. Alfonso et al., (2012) used a series of logistic regression models and find that segment managers may withhold information regarding segments with abnormally low profits, as segment managers may not want to expose the unresolved agency problems to avoid stricter oversight.

Second, the management should keep an eye on the compliance of SFAS 131 while preparing the segment disclosures. For example, since the additional disclosure improves the estimates of firm's value in presence of losses (Hayn, 1995; Collins, Maydew, &Weiss, 1997), managers may select positive (nonzero) SRDs using the management approach for reporting to mitigate the impact of losses at the firm level. Larger firms, more leveraged firms, and firms with higher return on assets (ROA) are more likely to report positive SRDs (Alfonso, Hollie & Yu, 2012). In addition, managers may select to protect abnormal profits by not disclosing segment earnings information, which leads to positive SRDs. However, such reporting choices may deviate from the management approach, which leads to noncompliance of SFAS 131.

Third, the management should be aware that segment managers may not fully reveal segment information, thereby decreasing firm transparency, increasing uncertainty about their firms (as shown in Botosan and Stanford, 2005), and possibly causing market mispricing for their firms (as shown by Hollie & Yu, 2012). Hollie & Yu (2012) employs hedge portfolios similar to Sloan (1996), Thomas (2000), and Hope, Kang & Thomas (2008) and Mishkin tests (Mishkin, 1983; Kraft, Leone & Wasley, 2007) to examine whether market price reflects SRD components. Hollie & Yu (2012), shows that when firms report positive SRDs, investors underestimate (i.e., market mispricing occurs) the segment reconciliation component of earnings. As a result, the market (i.e., investors) underestimates the value of the firm. This can affect the individual wealth of many groups, because such misvaluation of a firm affects employees, creditors, suppliers, and other stakeholders. This kind of misvaluation also affects managers in terms of any stock incentives that they may have in the company and possibly with regard to executive compensation.

Fourth, the management should prepare to provide detailed information to auditors, especially the management of firms with segment reconciliations due to differences between management approach earnings measurements (i.e., internal accounting) and traditional GAAP earnings measurements. The auditors need such information to determine if the segment reporting is in compliance with the spirit of the management approach: the requested internal documentation should support the external disclosure. For example, a firm is required to use a percentage of completion method to recognize revenue under the traditional GAAP approach. However, for segment reporting, a firm is only required to report revenue as it is recognized internally for evaluation, which could be different from the GAAP percentage of completion method. Such deviations should be adequately discussed along with segment reconciliations.

Next, the management should understand the limitation caused by SFAS 131. SFAS 131 intends for segment reconciliation to enhance the transparency of financial reports. However, the appropriate segment reconciliation (the resulted segment reconciliation under the management approach) may not be the reporting approach that results in the most transparent financial reports. Thus, it is possible the management deviate from the management approach to report the firm performance in the most transparent report form. Alternatively, the managers may deviate from the most transparent presentation of the performance by complying with the management approach.

Lastly, management should be aware that audit firms may approach the segment reconciliation differently. Not surprisingly, Big N firms may be more conservative in segment reconciliation. As discussed in Alfonso, et al. (2012), firms with Big 4 auditors are less likely to report positive SRDs. This may be due to the fact that Big N auditors want to maintain their reputations and reduce their legal liability exposure (Choi, Kim, Liu, & Simunic, 2008; and Francis & Wang, 2004). As found in prior studies, Big N auditors usually are more conservative in reported earnings than non-Big N auditors (Basu, Hwang, & Jan, 2001; Reynolds & Francis, 2000; Thomas, 1996; Simunic & Stein, 1996; and DeFond & Subrahmanyam, 1998). Reporting positive SRDs might be viewed as being less conservative than reporting negative or zero SRDs.

Overall, current research has shown that at the very least, managers and auditors should allocate resources to not only evaluating a firm's segment reported information, but also to the details in the segment reconciliation. Likewise, segment reconciliation can have significant market consequences (Hollie & Yu, 2012). Additionally, given the overall reporting disparity for segment reconciliations, some additional specific guidance on segment reconciliation reporting may be beneficial and necessary in the future.

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Appendix A

An Excerpt of Good Year Tire & Rubber Company Segment Information

Results of Operations – Segment Information

Segment information reflects our strategic business units ("SBUs"), which are organized to meet customer requirements and global competition and are segmented on a regional basis. Results of operations are measured based on net sales to unaffiliated customers and segment operating income. Each segment exports tires to other segments. The financial results of each segment exclude sales of tires exported to other segments, but include operating income derived from such transactions. Segment operating income is computed as follows: Net Sales less CGS (excluding asset write-off and accelerated depreciation charges) and SAG (including certain allocated corporate administrative expenses). Segment operating income also includes certain royalties and equity in earnings of most affiliates. Segment operating income does not include net rationalization charges (credits), asset sales and certain other items.

Total segment operating income was $1,248 million in 2012, $1,368 million in 2011 and $917 million in 2010. Total segment operating margin (segment operating income divided by segment sales) in 2012 was 5.9%, compared to 6.0% in2011 and 4.9% in 2010.

Management believes that total segment operating income is useful because it represents the aggregate value of income created by our SBUs and excludes items not directly related to the SBUs for performance evaluation purposes. Total segment operating income is the sum of the individual SBUs' segment operating income. Refer to the Note to the Consolidated Financial Statements No. 7, Business Segments, for further information and for a reconciliation of total segment operating income to Income before Income Taxes.

THE GOODYEAR TIRE & RUBBER COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following table presents segment sales and operating income, and the reconciliation of segment operating income to Income before Income Taxes:

(In millions)		**2012**
Sales		
North American Tire	$	9,666
Europe, Middle East and Africa Tire		6,884
Latin American Tire		2,085
Asia Pacific Tire		2,357
Net Sales	$	20,992

Appendix A (Cont'd)

An Excerpt of Good Year Tire & Rubber Company Segment Information

Segment Operating Income		
North American Tire	$	514
Europe, Middle East and Africa Tire		252
Latin American Tire		223
Asia Pacific Tire		259
Total Segment Operating Income		1,248
Less:		
Rationalizations		175
Interest expense		357
Other expense		139
Asset write-offs and accelerated depreciation		20
Corporate incentive compensation plans		69
Corporate pension curtailments/settlements		1
Intercompany profit elimination		(1)
Retained expenses of divested operations		14
Other		34
Income before Income Taxes	$	440

Appendix A (Cont'd)

An Excerpt of Good Year Tire & Rubber Company Segment Information

Segment measurement and reconciliations

There are several methodology differences between our segment reporting and our external reporting. The following is a list of the more significant methodology differences:

- Machinery and Power Systems segment net assets generally include inventories, receivables, property, plant and equipment, goodwill, intangibles and accounts payable. Liabilities other than accounts payable are generally managed at the corporate level and are not included in segment operations. Financial Products Segment assets generally include all categories of assets.
- Segment inventories and cost of sales are valued using a current cost methodology.
- Goodwill allocated to segments is amortized using a fixed amount based on a 20 year useful life. This methodology difference only impacts segment assets; no goodwill amortization expense is included in segment profit.
- The present value of future lease payments for certain Machinery and Power Systems operating leases is included in segment assets. The estimated financing component of the lease payments is excluded.
- Currency exposures for Machinery and Power Systems are generally managed at the corporate level and the effects of changes in exchange rates on results of operations within the year are not included in segment profit. The net difference created in the translation of revenues and costs between exchange rates used for U.S. GAAP reporting and exchange rates used for segment reporting are recorded as a methodology difference.
- Postretirement benefit expenses are split; segments are generally responsible for service and prior service costs, with the remaining elements of net periodic benefit cost included as a methodology difference.
- Machinery and Power Systems segment profit is determined on a pretax basis and excludes interest expense, gains and losses on interest rate swaps and other income/expense items. Financial Products Segment profit is determined on a pretax basis and includes other income/expense items.

Reconciling items are created based on accounting differences between segment reporting and our consolidated external reporting. Most of our reconciling items are self-explanatory given the above explanations. For the reconciliation of profit, we have grouped the reconciling items as follows:

- **Corporate costs:** These costs are related to corporate requirements and strategies that are considered to be for the benefit of the entire organization.
- **Methodology differences:** See previous discussion of significant accounting differences between segment reporting and consolidated external reporting.
- **Timing:** Timing differences in the recognition of costs between segment reporting and consolidated external reporting.