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Impact of Non-controlling Interests on Reliability of Consolidated Income Statement and Consolidated Balance Sheet

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Abstract

In this paper the selected problems of reliability and usefulness of consolidated financial statements, brought about by the existence of significant non-controlling interests, are discussed and illustrated with numerical examples. Non-controlling interests, labeled also as minority interests, reflect the participation of entities other than the parent company in economic benefits (both profits as well as net assets) generated by its non-wholly owned subsidiaries. If significant, non-controlling interests may dramatically erode the usefulness and credibility of individual line items of the parent company's consolidated financial statements, which also implies erosion of the usefulness of financial statement analysis tools, such as accounting ratios. This is so because under both IFRS (International Financial Reporting Standards) and US GAAP (US Generally Accepted Accounting Principles), financial results of controlled entities are fully consolidated with the parent's results, regardless of the actual share of the parent in its subsidiary's shareholder's equity. The possible distorting impact of non-controlling interests on individual line items of consolidated income statement and consolidated balance sheet, as well as on selected accounting ratios, is illustrated by the hypothetical scenarios, based on real-life data of Fiat Group.

Keywords

Consolidated Financial Statements, Non-controlling Interests, Financial Statement Analysis, Financial Statement Consolidation

1. Introduction

This paper discusses selected problems with reliability and usefulness of consolidated income statement and consolidated balance sheet, in cases where a parent company obtains control over its subsidiary without obtaining 100% ownership in its shareholders equity. In such instances, there are two broad categories of subsidiary's shareholders: a controlling entity, which consolidates the subsidiary's financial results and net assets in its consolidated financial statements, and non-controlling interests, also labelled as minority interests. Figure 1 presents a hypothetical example of such a shareholding structure.

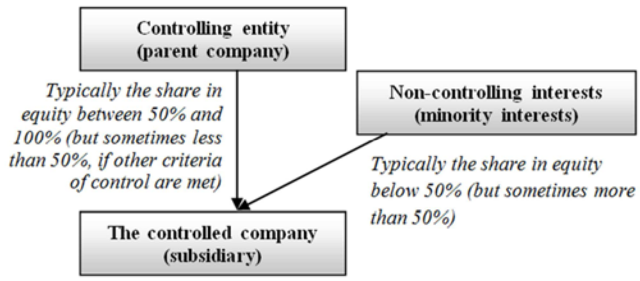

Figure 1. *A hypothetical example of a control of a parent company over its subsidiary without full ownership of the subsidiary's shareholder's equity.*

Before discussing and illustrating the problems with reliability and usefulness of consolidated income statement and balance sheet, caused by the presence of non-controlling interests, it is legitimate to emphasize the distinction between the separate (stand-alone) and consolidated financial statements. Generally speaking, separate or stand-alone financial statements report financial results of a single company, i.e. single legal entity, while consolidated financial statements present financial results of a group of related companies, composed of a parent company (also labeled as holding company or controlling entity) and all its subsidiary companies, over which the parent company has a control. The consolidated financial statements report the results of a group of separate legal entities as if they are a single company.

Basically, control is assumed when a parent company holds directly or indirectly more than 50% of voting rights on shareholder's meeting of its subsidiary. However, these are simplified principles and accounting standards, such as International Financial Reporting Standards or US GAAP, provide much more detailed guidance on when the control exists. On the ground of these guidelines companies often claim to control other entities despite owning significantly less than 50% of voting rights, e.g. thanks to voting agreements with other shareholders or significant dispersion of other shareholders. Also, firms sometimes state lacking control despite possession of more than 50% voting rights, e.g. due to specific legal regulations.

Definition of control is very important for financial reporting [1]. This is so because any company owning controlling interests in other entities prepares two types of financial reports: separate and consolidated financial statements. In separate financial statements the individual line items contain only the amounts attributable to a parent company. For example, a separate income statement of a parent company would include only revenues, expenses and taxes of that parent itself, while its balance sheet would contain only individual line items of its own assets and liabilities. Thus, generally speaking, none of the revenues, expenses, assets and liabilities of its subsidiaries would be included in its separate financial statements. In contrast, the individual line items of consolidated financial statements contain aggregated revenues, expenses, assets, liabilities and cash flows of a parent company and all of its controlled entities (subsidiaries), after adjusting for effects of any intra-group transactions, i.e. transactions between parent and its subsidiaries or between individual subsidiaries.

When referring to the consolidation of subsidiaries by their parent company, it is important to note that financial results of subsidiaries are always fully consolidated with financial results of the parent company, if only the control exists, regardless of the parent's share in the equity of those controlled entities [13]. Thus, the full consolidation of subsidiaries entails summing full amounts of all items of assets, liabilities, revenues, expenses and cash flows of a parent and all its subsidiaries, with adjustment for effects of intra-group transactions, regardless of the fact that the parent may possess, for instance, only 60% (instead of 100%) share in the subsidiary's equity. In such cases there are other parties entitled to participate in subsidiary's economic achievements. However, the only consolidation adjustments which account for a less-than-full share of the parent company in the shareholder's equity of its subsidiary are:

1) adjustment of the consolidated shareholders' equity, in the parent's consolidated balance sheet, by presenting the share of the entities other than the parent in the equity of its subsidiary, in the item labeled as "*non-controlling interests*" (also called "*minority interest*"), which is part of the total consolidated equity,
2) adjustment of the consolidated net earnings in the parent's consolidated income statement, and consolidated total comprehensive income in the parent's consolidated statement of comprehensive income, by presenting the share of the entities other than the parent in the earnings and comprehensive income of its subsidiary, in the items labeled as "*net earnings attributable to non-controlling interests*" and "*total comprehensive income attributable to non-controlling interests*".

2. Presentation of Non-controlling Interests in Consolidated Financial Statements

The analytical problems with non-controlling interests will be illustrated by real-life data of Fiat Group, as reported in Fiat's consolidated financial statement for 2013. Table 1 presents the shortened consolidated income statement of Fiat Group for 2012 and 2013, while Table 2 presents the consolidated balance sheet of Fiat Group for the same two years.

Table 1. *Consolidated income statement (shortened) of Fiat Group for 2013 and 2012.*

EUR million	2013	2012	Commentary
Net revenues	86.816	83.957	
TRADING PROFIT / (LOSS)	3.394	3.541	All those line items constitute the sums of 100% of values of
EBIT	2.972	3.404	respective line items, adjusted only for intra-group
Financial income / (expenses)	-1.964	-1.885	transactions, of the separate income statements of Fiat S.p.A.
PROFIT / (LOSS) BEFORE TAXES	1.008	1.519	(a parent company) and all of its subsidiaries, regardless of the
Tax (income) / expenses	-943	623	actual share of Fiat S.p.A. in the equity of those subsidiaries
PROFIT / (LOSS)	1.951	896	
PROFIT / (LOSS) ATTRIBUTABLE TO:			Only at the very bottom of the consolidated income statement
Owners of the parent	*904*	*44*	the non-negligible share of non-controlling interests is
Non-controlling interests	*1.047*	*852*	disclosed

Source: Fiat S.p.A. Annual Report at 31 December 2013.

Table 2. *Consolidated balance sheet (shortened) of Fiat Group for 2013 and 2012.*

EUR million	2013	2012	Commentary
Intangible assets	19.509	19.284	All those line items of assets constitute the sums of 100% of values of respective line items, adjusted only for intra-group transactions, of the separate balance sheets of Fiat S.p.A. (a parent company) and all of its subsidiaries, regardless of the actual share of Fiat S.p.A. in the equity of those subsidiaries
Property, plant and equipment	22.843	22.061	
Other non-current assets	5.259	4.119	
TOTAL NON-CURRENT ASSETS	47.611	45.464	
Inventories	10.230	9.295	
Trade receivables	2.406	2.702	
Receivables from financing activities	3.671	3.727	
Cash and cash equivalents	19.439	17.657	
Other current assets	3.408	3.206	
TOTAL CURRENT ASSETS	39.154	36.587	
Assets held for sale	9	55	
TOTAL ASSETS	86.774	82.106	
EQUITY:	12.584	8.369	Only here the non-negligible share of non-controlling interests is disclosed
Equity attributable to owners of the parent	*8.326*	*6.187*	
Non-controlling interests	*4.258*	*2.182*	
Provisions	17.360	20.276	All those line items of liabilities and provisions constitute the sums of 100% of values of respective line items, adjusted only for intra-group transactions, of the separate balance sheets of Fiat S.p.A. (a parent company) and all of its subsidiaries, regardless of the actual share of Fiat S.p.A. in the equity of those subsidiaries
Debt	29.902	27.889	
Other financial liabilities	137	201	
Trade payables	17.235	16.558	
Current tax payable	314	231	
Deferred tax liabilities	278	801	
Other current liabilities	8.943	7.781	
Liabilities held for sale	21	0	
TOTAL EQUITY AND LIABILITIES	86.774	82.106	

Source: Fiat S.p.A. Annual Report at 31 December 2013.

As might be seen in Table 1, only at the very bottom, i.e. on an after-tax earnings level of Fiat's consolidated income statement, it may be found that in both 2012 and 2013 the non-controlling interests had high share in Fiat's consolidated net earnings. This share amounted to 53,7% [= 1.047 / 1.951] in 2013 and as much as 95,1% [= 852 / 896] in 2012. Likewise, in only one line item of Fiat's consolidated balance sheet, presented in Table 2, it may be found that in both 2012 and 2013 the non-controlling interests had significant share in Fiat's total consolidated assets and liabilities. This share amounted to 33,8% [= 4.258 / 12.584] in 2013 and 26,1% [= 2.182 / 8.369] in 2012. Accordingly, it may be safely concluded that the non-controlling shareholders of some of Fiat's subsidiaries have had significant share in the shareholder's equity of those subsidiaries. In other words, Fiat and indirectly Fiat's shareholders had substantially less than 100% shares in one or more of Fiat's subsidiaries.

It may be found in the other information, disclosed in Note 23 to Fiat's consolidated financial statement for 2013 and summarized in Table 3, that the main reason staying behind such a high share of non-controlling interests in Fiat's consolidated earnings and equity, was the full consolidation of Chrysler Group, in which Fiat owned 58,5% share in equity as at the end of 2013. Accordingly, the share of minority shareholders (other than Fiat Group) in Chrysler's equity amounted to 41,5%. However, this is the only information available about the non-controlling shareholder's participation in Chrysler's earnings and assets. This is so because International Financial Reporting Standards do not require any more detailed disclosures about the non-controlling interest's shares in the individual line items of revenues, expenses, assets, liabilities and cash flows of the reporting company's non-wholly owned subsidiaries. As a result, the conclusions from the financial statement analysis (e.g. ratio analysis) of the consolidated financial statements may be significantly distorted and unreliable. These possible distortions will be illustrated below with the simulation of several hypothetical scenarios, regarding the intra-group structure of Fiat's profits and assets.

Table 3. *Extract from Note 23 to consolidated financial statement of Fiat Group for 2013.*

The non-controlling interest of €4,258 million at 31 December 2013 (€2,182 million at 31 December 2012) refers mainly to the following subsidiaries:

(% held by non-controlling interest)	At 31 December 2013	At 31 December 2012
Chrysler Group LLC*	41,5	41,5
Ferrari S.p.A.	10,0	10,0
Teksid S.p.A.	15,2	15,2

* It should be noted that on 21 January 2014 Fiat acquired the remaining ownership interest in Chrysler (41,5%)

Source: Fiat S.p.A. Annual Report at 31 December 2013.

3. Distortions of Financial Analysis Caused by Non-controlling Interests

Many financial statement ratios use inputs from the company's income statement, other than the so-called "bottom line", i.e. after-tax earnings. For example, operating profitability ratio is computed as a quotient of consolidated profit on core business operations (in Fiat's case it would be either trading profit or EBIT, depending on a given analyst's preference and analytical purpose) to consolidated sales revenues [6], [22], [19]. Similarly, EBITDA-based ratios, e.g. debt-to-EBITDA, which are very popular in credit risk analysis, [15], [5], [11], include consolidated EBITDA (earnings before interest, tax, depreciation and amortization), which in Fiat's case would be computed by adding back depreciation and amortization to either EBIT or trading profit. EBITDA is also extensively used in business valuation, [7], [8], [12], [3]. However, as was explained before, any consolidated income statement numbers other than the "bottom line", including EBIT and trading profit, constitute the simple sums of 100% of respective amounts derived from the stand-alone income statements of a parent and all of its controlled entities. Consequently, unlike in the case of after-tax earnings, such numbers as trading profit, operating income, EBITDA, etc., do not take into account the parent company's actual share in the profits of its non-wholly owned subsidiaries. And obviously the undisclosed share of non-controlling interests in total EBIT or trading profit may be completely different than their share in after-tax earnings, which is disclosed at the bottom of the consolidated income statement. This lack of analyst's knowledge about the parent's actual share in e.g. consolidated trading profit may ruin the credibility of ratio analysis, as illustrated below.

Suppose that an analyst computes and interprets the Fiat's accounting ratio in which case one of the inputs is the treading profit (e.g. coverage of interest payments by trading profit). In 2013 the Fiat's consolidated trading profit amounted to 3.394 million EUR, as reported in Table 1. However, the intra-group structure of this profit, i.e. where within a group it was generated (in a parent or its subsidiaries), is undisclosed in the financial report. Thus, several hypothetical scenarios may be considered, as shown in Table 4.

As these hypothetical scenarios show, depending on circumstances, the actual consolidated profit from a "core business" (i.e. excluding unusual items, financial income / expense, etc.), earned by Fiat for its shareholders, may be either substantially higher or considerably lower (even negative) than reported in the company's consolidated income statement. However, the actual consolidated trading profit attributable to Fiat's shareholders is not disclosed in the company's consolidated financial statement, which may significantly distort the credibility of any accounting ratios, where consolidated profits other than consolidated after-tax earnings are one of inputs.

Table 4. *Three hypothetical scenarios of the intra-group structure of Fiat's consolidated trading profit for 2013.*

EUR million	**Scenario 1**	**Scenario 2**	**Scenario 3**
Reported consolidated TRADING PROFIT, including:	3.394	3.394	3.394
Fiat (parent) and subsidiaries other than Chrysler	*2.000*	*5.000*	*-8.000*
Chrysler Group	*972*	*-1.606*	*11.394*
TRADING PROFIT attributable to Fiat's shareholders (with 58,5% share in Chrysler)*	2.569	4.060	-1.335

* 100% of trading profit of Fiat and its subsidiaries other than Chrysler + 58,5% of trading profit of Chrysler Group
Source: authorial computations on the basis of Fiat S.p.A. Annual Report at 31 December 2013.

Also accounting metrics, based on numbers reported in the consolidated balance sheet, may be significantly distorted in the presence of significant non-controlling interests [10]. One of such indicators is current liquidity ratio, which is usually computed as a quotient of company's total current assets to its total current liabilities, [9], [17]. Current ratio is applied not only in a pure financial analysis, e.g. in equity valuation and credit risk assessment, but also in a corporate strategy analysis, planning and management, [20], [21], [4]. Its lower safety threshold, meant as the value which the ratio should not fall below (if the firm is not to lose its financial liquidity), is typically assumed at 1,2-1,5, [14], [2], [18], [16]. However, in this ratio both numerator as well as denominator constitute inputs which are unadjusted for the actual share of the parent company in the assets and liabilities of its non-wholly owned subsidiaries. Furthermore, similarly as in the case of income statement data, the analyst lacks any disclosures in consolidated balance sheet or in the notes to financial statement, which would enable him or her to adjust the numbers reported on the face of the balance sheet. This is so because the only one line item of the consolidated balance sheet, which is broken down into its part attributable to the parent and to the non-controlling interests, is shareholder's equity. And obviously the undisclosed share of non-controlling interests in consolidated current assets and consolidated current liabilities may be completely different than their share in consolidated shareholder's equity, which is disclosed in the equity section of the balance sheet. This lack of analyst's knowledge about the parent's actual share in current assets and current liabilities may ruin the credibility of computed current ratios, as illustrated below.

Suppose that an analyst computes and interprets the Fiat's current liquidity ratio as at the end of 2013. In 2013 the Fiat's consolidated current assets, as reported in the balance sheet, amounted to 39.154 million EUR (as reported in Table 2 and Table 5). However, the intra-group structure of those assets (i.e. where within a group they are concentrated: in a parent or its subsidiaries) is undisclosed in the financial report. Thus, several hypothetical scenarios may be considered, as shown in Table 5.

As may be seen, the Fiat's raw current ratio, unadjusted in any way for non-controlling interests, amounted to 1,16 at the end of 2013. It means that it lied below its typically assumed safety thresholds of 1,2-1,5. However, as the simulations in Table 5 show, after taking into account the fact that Fiat S.p.A. (a parent company in Fiat Group) was not entitled to participate in 100% of economic benefits generated by the current assets held by its major non-wholly owned subsidiary (Chrysler Group), the poorer picture emerges. Depending on circumstances, the Fiat's actual current liquidity ratio may be as low as 1,05, if majority of its current assets are still held by the parent and its subsidiaries other than Chrysler, or even as low as 0,80, if majority of current assets (which are fully consolidated) are held by Chrysler Group, where Fiat S.p.A. holds only 58,5% share in equity. However, the actual current assets attributable to the parent company are not disclosed in the company's consolidated financial statement, which may significantly distort the credibility of the current liquidity ratios computed on the ground of the consolidated balance sheet.

Table 5. *Fiat's current liquidity ratio under two hypothetical scenarios of the intra-group structure of Fiat's consolidated current assets, as at the end of 2013.*

EUR million	Raw ratio*	Ratios adjusted for non-controlling interests	
		Scenario 1	Scenario 2
Consolidated current assets, including:	39.154	39.154	39.154
Fiat (parent) and subsidiaries other than Chrysler	-	*30.000*	*10.000*
Chrysler Group	-	*9.154*	*29.154*
Current assets attributable to Fiat's shareholders**	-	35.355	27.055
Consolidated current liabilities, including:	33.630	33.630	33.630
*Debt due within one year (from Note 27)****	*7.138*	*7.138*	*7.138*
Trade payables	*17.235*	*17.235*	*17.235*
Current tax payables	*314*	*314*	*314*
Other current liabilities	*8.943*	*8.943*	*8.943*
CURRENT LIQUIDITY RATIO (consolidated current assets / consolidated current liabilities)	1,16	1,05	0,80

* consolidated total current assets (as reported) / consolidated total current liabilities (as reported)
** 100% of current assets of Fiat (parent) and its subsidiaries other than Chrysler + 58,5% of current assets of Chrysler
*** on the face of the balance sheet Fiat does not breaks down its debt into long-term and short-term part, thus disclosures from notes to the financial statements are necessary to compute Fiat's total consolidated current liabilities
Source: authorial computations on the basis of Fiat S.p.A. Annual Report at 31 December 2013.

4. Example of More Serious Distortion of Consolidated Data

As was illustrated above with the numerical examples, the non-controlling interests, if significant, may dramatically erode the credibility of financial analysis of companies, based on the data extracted from their consolidated financial statements. However, even though the above examples clearly showed the dangers of using consolidated financial statement data (other than after-tax earnings and shareholder's equity) if non-controlling interests are non-negligible, they were still based on the group structure in which a parent company (Fiat S.p.A) held majority interest of 58,5% in the equity of its non-wholly owned subsidiary (Chrysler Group). In such a case, even though consolidated financial statement may no longer be fully reliable, at least the parent company is still entitled to participate in the majority of economic benefits, i.e. earnings and net assets, generated by its subsidiary. However, there are circumstances and group structures, when non-controlling interests are in fact majority interests, while the parent company controls the subsidiary by holding significantly less than 50% share in its equity. Such structures mean that the parent company is a minority shareholder of its subsidiary. Under IFRS, also in such cases the individual line items of the subsidiary's stand-alone financial statements are fully consolidated with its parent's financial statements, despite the fact that parent's proportional share in the subsidiary's equity is not only substantially lower than 100%, but also lower than 50%. Figure 2 presents a real-life example of multi-level equity relationships where a parent company (Asseco Poland S.A.) controls its subsidiary, located on the bottom of the group structure, by holding indirectly only slightly more than 10% of the share in this subsidiary's equity. Such multi-level presence of non-controlling interests may be labelled as "cascading dilution of shareholding".

According to the information presented on Figure 2, Asseco Poland S.A., i.e. a parent company in Asseco Group (listed on the Warsaw Stock Exchange) directly controls Asseco Central Europe a.s., despite holding minority interest (40,07%) in its shareholder's equity. This is thanks to being entitled to nominate three (out of five) members of this subsidiary's Supervisory Board. Then, down the group structure, Asseco Central Europe a.s. controls Slovanet a.s. by holding 51% (i.e. majority) share in its equity, while Slovanet a.s. in turn controls AmiTel s.r.o., also thanks to owning 51% of its outstanding shares. Consequently, Asseco Poland S.A. indirectly controls AmiTel s.r.o., i.e. the company on the lowest level in the group structure, despite holding only 10,04% share in its shareholder's equity. As a result, according to the full consolidation rules effective under IFRS, all the individual line items of revenues, expenses, profits, assets, liabilities and cash flows of AmiTel s.r.o. are added with 100% of their carrying amounts (as reported in this subsidiary's stand-alone financial statement) to the respective line items of Asseco Poland S.A., even though the latter's actual participation in those items is only slightly above 10%. Clearly, if the scope of such subsidiary's operations and net assets is non-negligible from the point of view of the scope of operations of the parent company, such a "cascading dilution of shareholding" may erode the credibility of the parent's consolidated financial statement to much larger extent than in the case of non-wholly owned subsidiaries held with majority interest (such as in the case of Fiat S.p.A. and Chrysler Group).

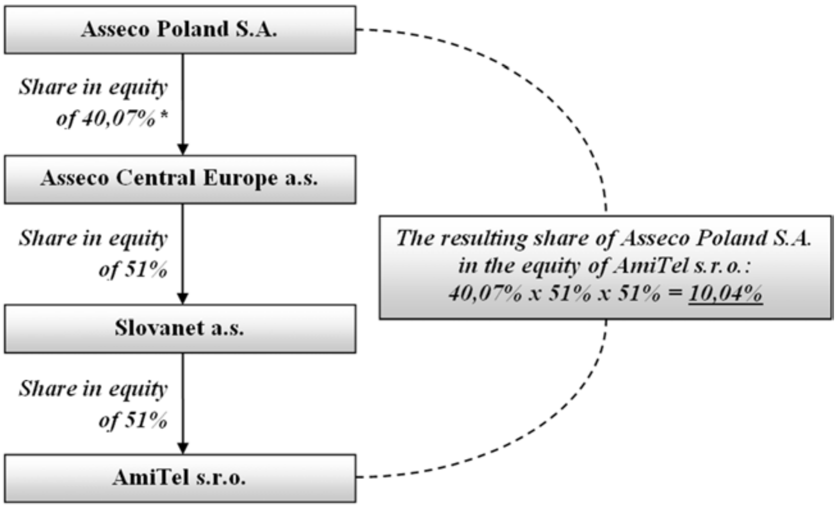

Figure 2. *A real-life example of "cascading dilution of shareholding": Asseco Poland S.A.*

* according to Asseco Group, "The Parent Company maintains control over Asseco Central Europe a.s. despite holding less than 50% of its common stock […] because, according to the Articles of Association of Asseco Central Europe a.s., 3 out of the total 5 members of the Supervisory Board of that company are appointed by Asseco Poland S.A."

5. Conclusions

In this paper the possible distorting impact of significant non-controlling interests on the analytical usefulness of corporate consolidated income statement and consolidated balance sheet has been discussed. As was shown, the reliability of consolidated financial statements in evaluating the company's financial condition may be heavily eroded when significant non-controlling interests (NCI) are present. This is because the NCI's share in individual line items of an income statement and a balance sheet is not disclosed, except for net earnings and total shareholder's equity. The hypothetical numerical examples, based on real-life extracts from corporate financial reports, clearly show that the primary tools of financial statement analysis, such as accounting ratios (e.g. operating profitability and current liquidity) may lose their informativeness in the presence of significant non-wholly owned subsidiaries within the groups structure. Furthermore, there exist group structures in which parent company controls and fully consolidates some of its subsidiaries, despite holding only minor (e.g. about 10%) share in their equity. In such cases, if the scope of the non-wholly owned subsidiary's operations and net assets is non-negligible, the resulting "cascading dilution of shareholding" may completely ruin the credibility of the parent's consolidated financial statement.

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