UNDERSTANDING CONSOLIDATION ACCOUNTING

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Version 1.0

January 2014

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Introduction

When setting up any kind of business application to perform financial consolidations, as a consultant it helps to have a good understanding of what consolidation accounting actually involves. If you were building a house, you would not ask a plumber to install the electrical fixtures. Although both are needed to complete building the house, the two have vastly different skillsets and would deliver different results. The same applies when building business applications such as SAP BusinessObjects Planning and Consolidation for Netweaver ("BPC") to produce consolidated financial statements. While BPC allows designing solutions for both planning and consolidations, someone experienced in planning business processes likely is not familiar with the financial concepts of consolidation accounting. This can lead to not delivering the most optimal consolidation solution. Since the key to designing any kind of consolidation system is understanding the business process, the purpose of this paper is to explain some basics of consolidation accounting involving the purchase, equity, and proportionate methods for consolidating investments in subsidiaries. After all, a consultant delivering a consolidation solution should have an understanding of consolidations.

The Premise of "Consolidations"

In today's business world, corporations of all sizes tend to have varied lines of business involving many separate companies obtained through acquisitions, spin-offs, or mergers. As a result, it can become challenging to analyze a business's overall performance or understand whether a business group remains a going concern in which to invest. To address this, companies consolidate their financial statements to achieve better transparency, to obtain more accurate numbers for comparison, and most importantly to meet their legal reporting requirements. Such results are also critical to understanding the overall viability of a group of companies that is not always visible when considering each as an independent entity.

In simple terms, the definition of a financial consolidation is the process by which the financial data of two or more companies are combined into one set of financial reports reflecting the assets, liabilities, equity, and results of operations as if every entity involved was one single company. This is not the same as "aggregating" or "combining" financial statements which are terms often used in the same context as "consolidated". They are mutually exclusive reporting concepts. "Aggregated" financial statements are simply financial results that are added together without any kind of adjustments or eliminations. These are the kinds of results often seen in basic management or planning reporting. "Consolidated" financial statements contain additional eliminations to adjust the effects of business activities between the underlying entities within a group. These are the kinds of results seen in external financial reporting.

The Options

As the purpose of a consolidation is to reflect the results of operations as if all subsidiaries were liquidated, various consolidation eliminations must be performed to get to this result. Eliminations take on two forms: intercompany (e.g., common business transactions) and investment (e.g., stock ownership of a subsidiary). Since you technically cannot do business with or buy ownership in yourself, the effects of such transactions are often adjusted or removed in order to report "consolidated". The various eliminations posted are subject to the specific consolidation method used.

This paper will mostly focus on the methodologies behind investment eliminations under US Generally Accepted Accounting Principles ("US GAAP"). Investment eliminations remove the ownership relationship between the long term investment by the parent and the various subsidiaries which are part of the consolidation group. This is commonly referred to as performing Consolidation of Investments ("COI") and is one of the most critical design considerations for any consolidations system. No one can be considered a consolidations consultant for a system like BPC without understanding COI. It would extremely difficult to design the appropriate eliminations and adjustment business rules.

In performing COI, under US GAAP there are three methods which might be considered in any consolidation process:

- Purchase
- Equity
- Proportional

Each method requires different calculations and is applied in specific circumstances. Typically, the choice of which method to use is determined by the group's percentage of ownership or by the group's level of control. However, there are exceptions and the customer's accounting leadership ultimately determines the appropriate methodology for consolidating each subsidiary. From the consulting point of view, one should understand the methods in order to both avoid risks and understand potential gaps.

Business Scenario

We will use the following business scenario involving the consolidation of one parent and one subsidiary to explain each method for producing consolidated financial statements.

	P	S
Balance Sheet:		
Cash		1,200
Intercompany Receivable from S	120	
Investment in S	1,000	
Total Assets	1,120	1,200
Intercompany Payable to P		(120)
Accrued Expenses	(100)	
Common Stock	(900)	(100)
Additional Paid-in Capital		(900)
Retained Earnings	(20)	(80)
Total Liabilities and Equity	(1,120)	(1,700)
Income Statement:		
Sales		200
Intercompany Interest Revenue	120	
Intercompany Interest Expense		(120)
Net Income for current period	120	80

FIGURE 1.1 Financial data for P and S Company.

The amounts in figure 1.1 will be used to create a consolidated financial statement for each of the consolidation methods discussed later in this paper.. The columns for P and S represent the balance sheet and income statement from each company's respective general ledger as of the close of the period. The values presented for S are at fair market value as of the point of acquisition except for the income statement, retained earnings, and the intercompany amounts which occurred after acquisition. P Company purchased 75% of the outstanding common stock of S Company for $1,000. The organizational hierarchy is only one consolidation group containing both P Company and S Company.

Purchase Method

The underlying concept of the purchase method is that one entity has purchased majority control of another entity. This is generally defined as owning more than 50% (and up to 100%) of a business, or having the ability to exercise controlling influence over that company regardless of the ownership stake (e.g., P may own 40% of the outstanding shares of S but if those shares allow 60% control of the votes then P is considered to have controlling influence). When this condition occurs, the entities must consolidate according to the purchase method of consolidation.

Under this method, all of the subsidiary's assets, liabilities, revenues, and expenses are added together with the parent company's as if they are one entity. Any intercompany transactions where the parent and subsidiary have done business together must be eliminated for reporting since a company cannot do business with itself and such amounts gross-up the reported results. This can involve eliminating various receivables, payables, revenues, expenses, dividends, or any other transactions that would not have been recorded if the two entities had not done business together. In addition, an investment elimination must be recorded to remove the parent's investment in the subsidiary's common stock against the subsidiary's equity accounts. Since only one entity exists in a consolidation, the underlying common stock of the subsidiary and the related capitalization amounts in the subsidiary's equity must be removed. This is commonly what is thought of as consolidation of investment or COI.

COI can also involve amounts such as goodwill or non-controlling interest (also sometimes referred to as minority interest). Goodwill appears when the value of the parent's investment in the subsidiary differs from the underlying fair market value of the amount of net assets to which it relates. Such amounts can be positive or negative. Non-controlling interest ("NCI") appears only in cases where the parent owns less than 100% of the subsidiary. It represents the amount that the parent would be required to pay out to the outside shareholders for their claims to the net assets if the subsidiary was liquidated as of reported point in time.

Referring back to figure 1.1, three elimination entries will be needed to produce a consolidated result. The first is to eliminate the balance of "Intercompany Receivable from S" with the balance of "Intercompany Payable to P". The second is to eliminate "Intercompany Interest Revenue" with the balance of "Intercompany Interest Expense". For simplicity, the amounts in both of those eliminations are the same so that no intercompany differences are created. The final elimination is for COI. In this case, since P has purchased 75% of S, it will have both goodwill and NCI amounts which must be calculated in addition to removing the investment and equity amounts.

Per FASB 160, the goodwill component is determined by imputing an investment value for the non-controlling interest and recording the difference between the total purchase price (controlling + non-controlling investment) and the acquired net assets as goodwill. Since P's investment is $1000 and that represents 75% of the fair market value purchase price, then total investment is implied to be $1333 ($1000 / 75%). Taking this amount minus the net assets at acquisition (common stock and APIC), there is $333 of goodwill ($1333 – $1000).

The NCI component is determined in three steps. First, the initial NCI is calculated by taking the non-owned share and multiplying it to the amount of S's equity (common stock and APIC). This is 25%

(100% - 75%) of $1000 (100+900) which equals $250. Second, the portion of goodwill imputed to the outside shareholders as per FASB 160 must be added. This is 25% (100% - 75%) of $333 determined earlier which equals $83. Third, NCI must be recorded from the results of S's operations by taking the non-owned share and multiplying it to the amount of S's non-intercompany net income. This is 25% of $200 which equals $50.

Once these eliminations are recorded, the following consolidated financial statement is reported:

	P	S	Eliminations	Consolidated
Balance Sheet:				
Cash		1,200		1,200
Intercompany Receivable from S	120		(120)	
Investment in S	1,000		(1,000)	
Goodwill			333	333
Total Assets	1,120	1,200	(787)	1,533
Intercompany Payable to P		(120)	120	
Accrued Expenses	(100)			(100)
Common Stock	(900)	(100)	100	(900)
Additional Paid-in Capital		(900)	900	
Retained Earnings	(120)	(80)	50	(150)
Non-controlling Interest			(383)	(383)
Total Liabilities and Equity	(1,120)	(1,200)	787	(1,533)
Income Statement:				
Sales		200		200
Intercompany Interest Revenue	120		(120)	
Intercompany Interest Expense		(120)	120	
Consolidated Net Income	120	80		200
Less: Net Income – NCI			(50)	(50)
Net Income – Controlling interest	120	80	(50)	150

FIGURE 1.2 Consolidated financial data for P and S Company using purchase method.

As seen in figure 1.2, a consolidated result gives a much different perspective of the financial condition of the group versus P's stand-alone financials. The balances of S are reported as if S is owned 100% and the claims on the net assets of S by the outside stakeholders are reported in a single amount as NCI. So if S were to be liquidated, P's obligation to the outside stakeholders equals $383. Based on S's net fair market value (assets including the goodwill at acquisition minus liabilities) of $1,533, $383 makes sense given the ownership percentages ($1,533 * 25% = $383).

Equity Method

The underlying concept of the equity method of consolidation is similar to equity investment accounting seen in the general ledger. When a parent owns more than 20% and less than 50% of a subsidiary, or has the ability to exercise significant influence over that company, the entities must consolidate following the equity method of consolidation.

Under this method, the subsidiary's financial balances are not added to the parent company's as if they are one entity. They are left out of the statement entirely. No intercompany activities between the parent and the subsidiary are eliminated as they are considered to be related party transactions and are disclosed in footnotes to the financial statements. The parent simply adjusts the value of its investment in the subsidiary for its share of the subsidiary's net income or when the subsidiary pays a cash dividend or otherwise distributes profit to the parent. Since only the parent's investment balance will change using this methodology, equity consolidations are sometimes referred to as "one line consolidations".

Referring back to the business scenario in figure 1.1, the same numbers will be used even though the ownership share of 75% would normally not allow for using the equity method. No intercompany eliminations are required as the receivable and interest revenue are considered related party transactions. Two COI eliminations are needed to adjust the initial investment for goodwill and to record P's participation in S's net income for the period. The goodwill component is determined by taking P's investment amount minus the percentage owned of S's equity (common stock and APIC). In this case $1000 – 75% of $1000 (100+900) which equals $250. This amount offsets the initial investment. The participation component is then calculated by taking P's ownership share and multiplying it to the amount of S's net income. This is 75% of $80 which equals $60.

Once these eliminations are recorded, the following consolidated financial statement is reported:

	P	S	Eliminations	Consolidated
Balance Sheet:				
Intercompany Receivable from S	120			120
Investment in S	1,000		(190)	810
Goodwill			250	250
Total Assets	1,120		60	1,180
Accrued Expenses	(100)			(100)
Common Stock	(900)			(900)
Retained Earnings	(120)		(60)	(180)
Total Liabilities and Equity	(1,120)		(60)	(1,180)
Income Statement:				
Intercompany Interest Revenue	120			120
Equity in Net Income of S			60	60
Net Income for current period	120		60	180

FIGURE 1.3 Consolidated financial data for P and S Company using equity method.

As seen in figure 1.3, no amounts from S company are reported in the consolidated financial statements and only P's investment is changed for its participation in the results of S's operations. In essence, this represents the amount due to P if S was liquidated. Since S's net assets total $1,080 in this example, the investment amount of $810 makes sense ($1,080 * 75% = $810).

Proportional Method

The proportional method is not commonly seen with companies as recent accounting guidance for aligning various world-wide generally accepted accounting principles no longer permits its use with joint ventures (the most common use). Under this guidance, such companies must be consolidated using the equity method. However, in certain cases for specific industry segments (e.g., oil & gas, etc.), proportional consolidation may be still be used.

The underlying concept of the proportional method of consolidation is similar to that already discussed under the purchase method. Under this method, the subsidiary's assets, liabilities, revenues, and expenses are added together with the parent company's in amounts proportional with the parent's ownership share in the subsidiary. The treatment of intercompany eliminations is the same as with the purchase method. An investment elimination is recorded to remove the parent's investment in common stock against the subsidiary's equity accounts. The main difference involving COI is that you will not see any NCI amount as the subsidiary's financials are not included at 100%. The parent's investment amount is compared to the subsidiary's equity which should be in proportion with the parent's ownership amount.

Referring back to the business scenario in figure 1.1, three elimination entries will be needed. The first is to eliminate the balance of "Intercompany Receivable from S" with the balance of "Intercompany Payable to P". The second is to eliminate "Intercompany Interest Revenue" with the balance of "Intercompany Interest Expense". In both cases, the proportional subsidiary drives the elimination amount and differentials can remain since the subsidiary's ledger amounts have been reduced to the group's proportionate share. These differentials represent claims against or obligations to parties outside the consolidated group and are normally reclassified to third party or related party accounts for disclosure in a consolidated report. For purposes of simplicity in this example, the differentials are left in the intercompany accounts. Finally, an investment elimination is needed. In this case, since P has purchased 75% of S, it will have a goodwill which must be calculated in addition to removing the investment and equity amounts. The goodwill component is determined by taking P's investment amount minus the percentage owned of S's equity (common stock and APIC). In this case $1000 – $750 (75+675) which equals $250. As stated before, there is no NCI since the group is not reporting the subsidiary at 100% and the investment and proportional equity amounts should be the same.

Once these eliminations are recorded, the following consolidated financial statement is reported:

	P	S	Eliminations	Consolidated
Balance Sheet:				
Cash		900		900
Intercompany Receivable from S	120		(90)	30
Investment in S	1,000		(1,000)	
Goodwill			250	250
Total Assets	1,120	900	(840)	1,180
Intercompany Payable to P		(90)	90	
Accrued Expenses	(100)			(100)
Common Stock	(900)	(75)	75	(900)
Additional Paid-in Capital		(675)	675	
Retained Earnings	(120)	(60)		(180)
Total Liabilities and Equity	(1,120)	(900)	840	(1,180)
Income Statement:				
Sales		150		150
Intercompany Interest Revenue	120		(90)	30
Intercompany Interest Expense		(90)	90	
Net Income for current period	120	60		180

FIGURE 1.4 Consolidated financial data for P and S Company using proportional method.

As seen in figure 1.4, the overall amount of net assets is the same as with the equity technique ($1,180). The main differences are that under the equity method all of the amounts were part of the investment number whereas under the proportional method those amounts are reflected in various account in proportion to the ownership share. This shows the concept of “one line consolidation” versus “many lines”.

Comparison by Method

Below is a comparison of the consolidated financial statements from each method.

	PURCHASE	EQUITY	PROPORTIONAL
Balance Sheet:			
Cash	1,200		900
Intercompany Receivable from S		120	30
Investment in S		810	
Goodwill	333	250	250
Total Assets	1,533	1,180	1,180
Intercompany Payable to P			
Accrued Expenses	(100)	(100)	(100)
Common Stock	(900)	(900)	(900)
Additional Paid-in Capital			
Retained Earnings	(150)	(180)	(180)
Non-controlling Interest	(383)		
Total Liabilities and Equity	(1,533)	(1,180)	(1,180)
Income Statement:			
Sales	200		150
Intercompany Interest Revenue		120	30
Intercompany Interest Expense			
Equity in Net Income of S		60	
Net Income - NCI	(50)		
Net Income	150	180	180

FIGURE 1.5 Comparison of consolidated financial statements using the various methods

Comparing the methods in figure 1.5, it can be seen that while there are similarities to the way certain amounts are calculated (e.g., goodwill, etc.), each result yields a slightly different perspective from both each other and from P's stand-alone financial statements. There are pros and cons to every method but that will not be discussed in this paper. A user still needs to understand the underlying numbers.

Conclusion

Consolidation of investments is one of the most critical design considerations for any consolidation system. Part of the key to proper design is understanding the process and the nature of the accounting to be employed as investment eliminations can become rather complex when considering most consolidations employ multiple methods and multiple techniques. This paper does not discuss all of the various activities one might see in the consolidation of investments. It merely serves to inform the reader of the basic nature of the most common US GAAP methodologies. While a consolidations consultant is not expected to determine proper accounting treatments, he should have an understanding of how the most common forms of consolidation work in order to minimize design and implementation risks. In this way, the odds for an optimal implementation can be increased.