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Rethinking Terms of Trade Adjustments in Transfer Pricing: An Argument for a More Reliable Benchmarking Analysis

The authors refer to examples from the U.S. automotive industry to support their argument that in certain cases, failing to make corresponding terms of trade adjustments to respective balance sheet accounts can undermine the reliability of a benchmarking analysis.



By YUKO SAITO AND M. EMRE FURTUN

Terms adjustments or working capital adjustments are pervasively accepted in transfer pricing analyses under Section 482 and the Organization for Economic Cooperation and Development transfer pricing guidelines. Such adjustments account for differences in accounts receivable and accounts payable along with differences in inventory levels (also, collectively referred to as asset-intensity adjustments), between the tested party and the comparables, especially when an income-statement-based profit level indicator (PLI) is used in the comparable profits method (CPM)¹

¹ CPM is essentially the transactional net margin method under the OECD guidelines.

Yuko Saito is a vice president based in NERA Economic Consulting's New York office. Emre Furtun is a senior consultant with NERA in Chicago. The authors would like to thank Harlow N. Higinbotham and Emmanuel Llinares for their valuable suggestions to this article. The views expressed here are those of the authors alone.

or the residual profit split method.²

In such cases, terms adjustments are employed to eliminate imputed interest in accounts receivable and accounts payable. However, in practice, terms adjustments are often omitted when a balance sheet based PLI is selected, based on the notion that a balance sheet based PLI already adjusts for differences in the underlying trading assets or capital employed.

This article examines the use of terms of trade adjustments, specifically receivables and payables adjustments, as financial comparability adjustments under Section 482 regulations and the OECD guidelines and argues for the need for both receivables and payables adjustments, even in cases where a balance sheet based PLI is used. The article uses the U.S. automotive industry as an example and evaluates whether comparability adjustments on the balance sheet are necessary when there are substantial differences in the working capital structure between the tested party and the comparables due to different trade terms.

² Working capital adjustments can be also made in the resale price and cost plus methods.

Regulatory Guidance

Both the Section 482 regulations and the OECD guidelines discuss adjustments for differences in credit terms and working capital between controlled and uncontrolled transactions. The underlying assumption is that “at arm’s length such differences would lead to price differences that reflect the time value of money.”³ Given this principle, the Section 482 regulations require adjustments to account for the differences in payment terms if such differences have a material effect on prices.⁴ Similarly, the 2010 OECD guidelines also provide an example where a large retail business benefits from long credit terms with its suppliers and a short credit term with its customers, thus making it possible to derive excess cash that in turn may make it possible to have lower sales prices to customers than if such advantageous credit terms were not available.⁵ These adjustments are intended to account for differences in imputed interest on sales and purchase prices between controlled and uncontrolled transactions, and therefore, they are generally made on the income statement.

Further, when applying the CPM and the RPSM, comparability is particularly dependent on the resources employed and risks assumed since an operating profit represents a return for the investment of resources and assumption of risks.⁶ In some cases, the assets of an uncontrolled comparable company may need to be adjusted to achieve greater comparability between the tested party and the uncontrolled comparable companies.⁷ This adjustment is especially important when a balance sheet based PLI is used, and in such cases both operating assets and operating profit must be adjusted to account for a significant difference in the level of accounts receivable between the tested party and the comparable companies.⁸ Therefore, operating assets and capital employed values may need to be adjusted in addition to reflecting imputed interest on the income statement.

The IRS *APA Study Guide* also recognizes the relationship between a company’s profit and capital employed and explains the reason for working capital adjustments:

Two concepts underlie the need for asset intensity adjustments. The first is that the amount of capital employed in a business normally affects a company’s economic profit and expected return. The second is that hidden interest included in a company’s expenses or revenue should be removed.

However, the study guide states that the types of assets adjusted for depend on whether the PLI has an income statement item in the denominator or a balance sheet item in the denominator. When a return on assets (ROA) PLI is used, an adjustment to account for differences in accounts receivable is not required or limited to imputing interest on the accounts payable balance at a lower rate of return.⁹ This is based on the notion that

a balance sheet based PLI implicitly adjusts for differences in the underlying assets.

Conversely, the study guide also acknowledges that a special lower rate of return can be appropriate in adjusting accounts receivable and accounts payable even with a balance-sheet-based PLI. The study guide is silent, however, on the appropriateness of adjusting accounts receivable and accounts payable balances on the balance sheet.¹⁰

In essence, trade terms adjustments would not be necessary if differences in trade terms between the tested party and the comparables were not material, and this occurs only when the level of functional comparability between the tested entity and the comparables is sufficiently high. In practice, however, such a high level of functional comparability is rare, and thus, trade terms adjustments are necessary to enhance comparability and improve the accuracy of benchmark returns. The U.S. automotive industry provides a good example to illustrate the need for terms adjustments reflected on both the balance sheet and income statement, especially when an automotive original equipment manufacturer (OEM) is tested against a set of non-OEM comparable companies.

Payment Terms and Business Practice in the U.S. Automotive Industry

The arm’s-length principle requires determination of the return that affiliated parties would earn on controlled transactions if they traded with each other at arm’s length. This determination is made with respect to the most functionally comparable independent companies for which reliable data are available. In the automotive industry in the U.S., automotive parts suppliers are typically used as comparables to benchmark routine returns on manufacturing functions for automotive OEMs. Because automotive OEMs have valuable intangibles that cannot be accurately adjusted for, automotive suppliers are often selected as the best available manufacturing comparables for the OEMs despite the different level of the market. Further, due to lack of financial data of independent automotive wholesale distributors, independent durable goods wholesale distributors are often selected to benchmark a routine return on distribution functions of the OEM.

Automotive OEMs in the U.S. conduct their trade on terms that are distinctly different from normal commercial practice in most other industries. The OEMs typically impose short payment terms with their dealer-customers because dealers finance substantial part of their inventory purchases through the OEM’s captive finance company or other independent financial intermediaries. On the other hand, automotive suppliers typically extend normal credit terms (longer payment terms) to their OEM-customers. This unique trade practice in the automotive industry creates a significant difference in the asset intensity, particularly in the level of accounts receivable relative to sales, observed between the OEMs and suppliers.

Table 1 presents the collection and payment cycles of the OEMs and representative sets of suppliers and durable goods wholesale distributors. The OEMs collect their receivables in just one to three weeks, while the

³ Regs. § 1.482-1(c)(2)(ii)(B).

⁴ Regs. § 1.482-1(d)(3)(ii)(A)(7).

⁵ The OECD guidelines, July 2010, Chapter 2, para. 2.81.

⁶ Regs. § 1.482-5(c)(2)(ii).

⁷ Regs. § 1.482-5(c)(2)(iv).

⁸ Regs. § 1.482-5(e), Example 5.

⁹ *Id.*, pp. 47 - 49.

¹⁰ *Id.*, p. 49.

average suppliers' and wholesale distributors' collection periods are 52 days and 47 days, respectively. The significant difference between the collection and pay-

ment cycles of non-OEM comparables and the OEM tested party necessitates the use of terms of trade adjustments.

Figure 1: Normal Commercial Practice in the U.S. ¹¹

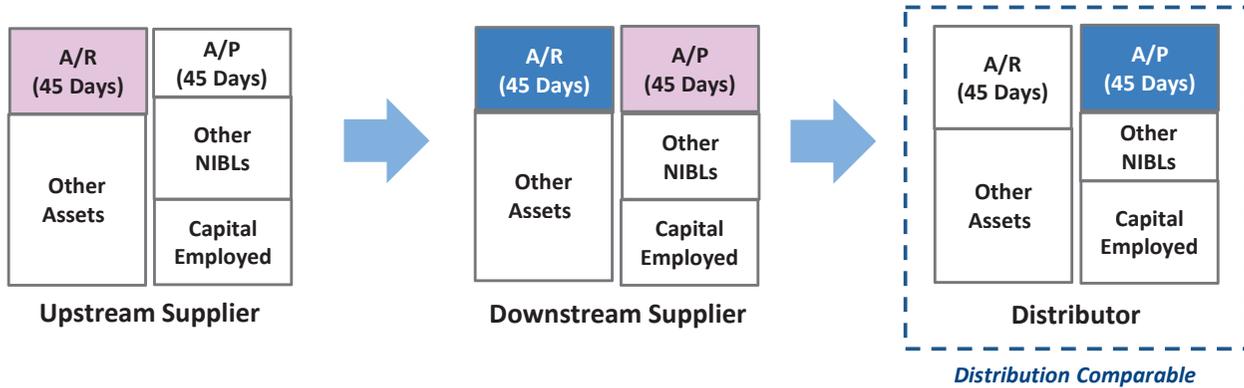
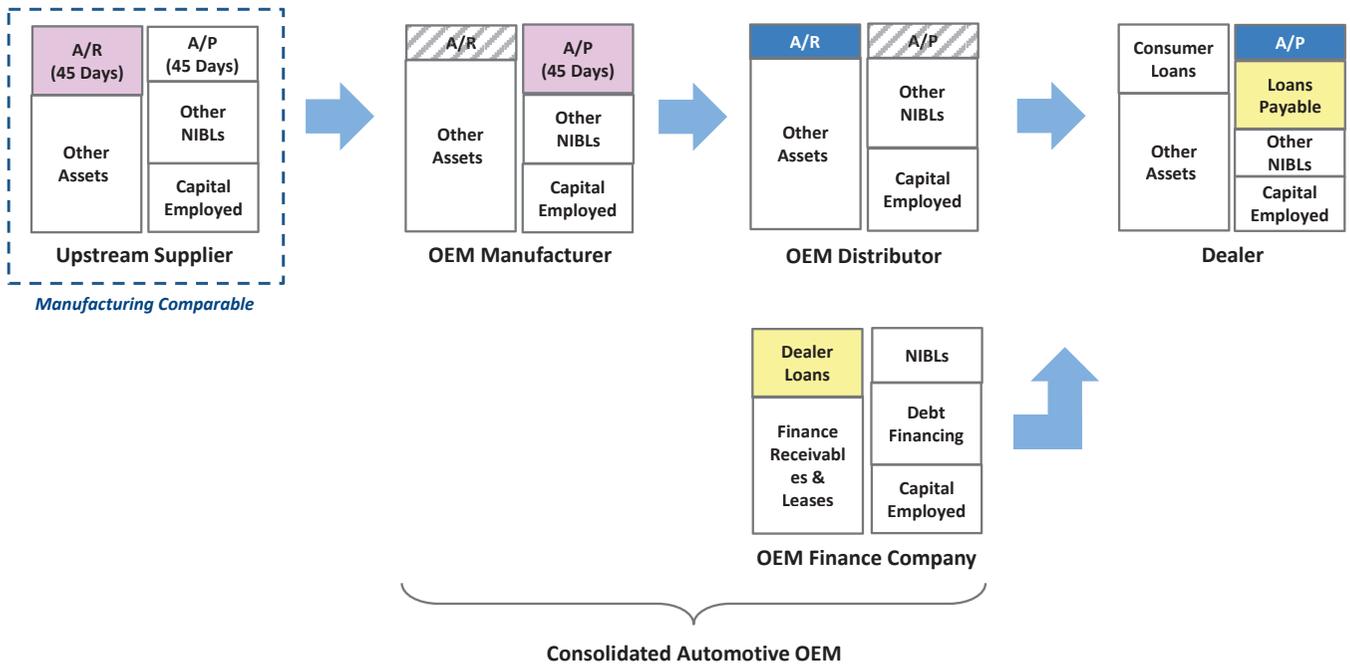


Figure 2: Automotive OEM Practice in the U.S. ¹²



¹¹ NIBLs stand for non-interest-bearing liabilities. Capital employed is operating assets less NIBLs.

¹² GM and Ford have their own captive finance operations, the Chrysler Group offers dealer and consumer financing through a joint venture with a third-party bank under the Chrysler Capital brand name. Foreign OEMs have similar dealer/consumer financing arrangements, either through their own captive finance operations or through third-party banks, in the U.S.

Table 1: Collection & Payment Cycles in the Automotive Industry

FY 2013 ¹ (MM USD)	GM	Ford	Chrysler Group	Automotive Suppliers Average ²	Wholesale Distributors Average ³
Collection Cycle					
Product sales	152,092	139,369	72,144	4,792	6,143
Accounts receivable (A/R)	9,465	5,501	1,170	466	793
A/R-to-sales	6.2%	3.9%	1.6%	14.2%	12.9%
Days receivable ⁴	22.7 days	14.4 days	5.9 days	51.9 days	47.1 days
Payment Cycle					
Cost of product sales	134,925	125,234	61,398	4,080	5,650
Accounts payable (A/P)	24,394	18,093	10,189	421	809
A/P-to-cost of sales	18.1%	14.5%	16.6%	15.5%	14.3%
Days payable ⁵	82.5 days	65.9 days	75.7 days	68.2 days	52.3 days

¹ Respective companies' Form 10-K filings for the fiscal year ended Dec. 31, 2013 (FY 2013). Accounts receivable and accounts payable balances are the average of beginning and ending balances.

² Comparable automotive suppliers were selected after screening for R&D intensity, North America sales, and functional comparability. The list of accepted comparables is comprised of companies with SIC codes 3714, 3460, 3690, and 3460.

³ Comparable wholesale distributors were selected after screening for North America sales and functional comparability. The list of accepted comparables is comprised of companies with SIC codes 5010, 5013, 5030, 5031, 5045, 5063, and 5070.

⁴ Days receivables are computed as: (Average A/R x 365 days)/Product sales

⁵ Days payable are computed as: (Average A/P x 365 days)/(Cost of product sales x 80%). The 80% factor assumes that 20% of cost of sales is in-house costs (labor, depreciation, overhead, etc.) for manufacturers. This factor is 1 for wholesale distributors.

Figure 1 illustrates a company's balance sheet structure under the normal commercial practice where the seller extends credit on sales normally in the range of one to two months. Figure 2, on the other hand, illustrates the balance sheet structure in the automotive industry. From a consolidated perspective, the automotive OEM carries a much smaller level of accounts receivable vis-a-vis the average supplier or the average wholesale distributor, while it carries a relatively normal level of accounts payable, which is also evidenced in the suppliers' accounts receivable.

In order to infer from the comparables data what the automotive OEM would earn at arm's length on its routine functions, it is necessary to make adjustments for the material differences in the level of accounts receivable between the tested party OEM and the non-OEM comparables. When a balance sheet based PLI such as ROA or return on capital employed (ROCE) is used, it is important to measure operating assets in an accurate and consistent manner, as comparability is particularly dependent on the resources employed and risks assumed when the CPM or RPSM is applied. Since accounts receivable and accounts payable are important components of operating assets and capital employed, and since the accounts receivable and payable balances vary with trade terms, it is necessary to adjust the trade terms differentials between the tested party and the comparables and the resulting receivables and payables balances on the balance sheet.

The following example illustrates the potential impact of the asset structure differential between the tested OEM and the comparables, using a hypothetical automotive OEM's manufacturing and distribution segments as tested parties.

Illustration

Presented in Table 2 are hypothetical and simplified financial data of an automotive OEM. In this example, the distribution segment's payment terms with independent dealer-customers are 15 days while the manufacturing segment's payment terms with independent suppliers are 65 days. Intersegment trade terms between the distribution and manufacturing divisions are assumed to be 15 days.

As presented in Table 1, the average trade terms of the manufacturing comparable companies (automotive suppliers) are 51.9 days on sales and 68.2 days on purchases, while the average trade terms of the distribution comparable companies (durable goods wholesale distributors) are 47.1 days on sales and 52.3 days on purchases. In order to measure the OEM's trading assets in a consistent manner as these comparable companies, the OEM's trade terms need to be adjusted to the arm's length comparable companies' trade terms.

Table 3 presents the OEM's segmented financial data before and after adjusting the trade terms to the respective comparable companies' average terms. The adjusted balances of receivables and payables are simply derived from rearranging the days receivables and days payables formulas (see Table 1, footnotes 4 and 5). Corresponding changes are also reflected in the operating assets and capital employed. The adjustment amounts to the receivables and payables balances are substantial; the adjusted balances reflect arm's length trade terms of the respective comparable companies, and therefore the OEM's assets and capital employed are measured on an equal footing basis vis-a-vis the comparable companies.

Table 2: Hypothetical OEM Financial Data

(MM USD)	OEM Manufacturing	OEM Distribution	Elimination	OEM Consolidated
Income Statement				
Sales	135,000	150,000	(135,000)	150,000
Cost of sales	127,000	135,000	(135,000)	127,000
Operating expenses	3,250	11,000	—	14,250
Operating profit	4,750	4,000	—	8,750
Selected Balance Sheet Items				
A/R	5,550	6,160	(5,550)	6,160
Other operating assets	36,500	30,000	—	66,500
Total operating assets	42,050	36,160	—	72,660
A/P	18,090	5,550	(5,550)	18,090
Other NIBLs	4,000	7,500	—	11,500
Total NIBLs	22,090	13,050	—	29,590
Capital employed	19,960	23,110	—	43,070
Collection and Payment Cycles				
A/R-to-sales	4.1%	4.1%	—	4.1%
Days receivable	15 days	15 days	—	15 days
A/P-to-cost of sales	14.2%	4.1%	—	14.2%
Days payable	65 days	15 days	—	65 days

As presented in Table 3, terms adjustments on the tested party balance sheet have a material impact on balance sheet based PLI ratios. Therefore, the appropriateness of terms adjustments on the balance sheet should be evaluated on a case by case basis, and where necessary such adjustments should be employed even when a balance sheet based PLI is used.

Further, due to substantial differences in trade terms between the OEM and the comparable companies, the differences in imputed interest on sales and purchases can be material, and thus, such material differences should be eliminated from the tested parties' income

statement. It can be argued that accounts receivable or accounts payable earn or incur a rate of return different from other operating assets or capital employed. The Section 482 regulations suggest using interest rate appropriate for short-term debt.¹³ The IRS APA Study Guide similarly suggests a “special lower rate of return.”¹⁴ Further, in many cases the IRS APA program uses an interest rate equal to LIBOR (3 months) plus

¹³ Regs. §1.482-5(e) Example 5.

¹⁴ IRS APA Study Guide, p. 49.

Table 3: Impact of Trade Terms Adjustments on Operating Assets and Capital Employed¹

(MM USD)	OEM Manufacturing Segment		OEM Distribution Segment	
	Balance Sheet Unadjusted	Balance Sheet Adjusted	Balance Sheet Unadjusted	Balance Sheet Adjusted
Sales	135,000	135,000	150,000	150,000
Cost of sales	127,000	127,000	135,000	135,000
Operating profit	4,750	4,750	4,000	4,000
A/R	5,550	19,196	6,160	19,356
% Δ	—	246%	—	214%
A/P	18,090	18,984	5,550	19,344
% Δ	—	5%	—	249%
Days receivable	15 days	51.9 days	15 days	47.1 days
Days payable	65 days	68.2 days	15 days	52.3 days
Operating assets	42,050	55,696	36,160	49,356
Capital employed	19,960	32,712	23,110	22,512
Assets-to-sales %	31.1%	41.3%	24.1%	32.9%
ROA	11.3%	8.5%	11.1%	8.1%
ROCE	23.8%	14.5%	17.3%	17.8%

¹ To isolate the impact of terms of trade adjustments on payables and receivables, the impact of terms adjustments on operating profit is not shown in this table. Table 4 provides the implied impact on operating profit.

200 basis points to calculate terms of trade adjustments for the U.S. companies.¹⁵

Table 4 presents PLI results of the hypothetical OEM companies' manufacturing and distribution operations with varying interest rate assumptions. No interest imputation is made to receivables or payables in the "unadjusted" columns; therefore, the PLI results are the same as those presented in the balance sheet "Adjusted" columns in Table 3. A 30-day commercial paper rate and LIBOR plus 200 basis points are used in the "CP" and "LIBOR+2%" columns, respectively, to impute interest. The adjustments are not made on the full receivables or payables balances but, rather, reflect the terms differentials between the OEM and the comparables.

Imputed interest adjustments on the income statement are sensitive to interest rates used. There is little impact on the PLI results when an extremely low interest rate, such as the current going rate of commercial paper, is used. However, there is some impact on the PLI results when the LIBOR plus 200 basis points is

¹⁵ IRS *Internal Revenue Bulletin: 2011-16*, "Announcement and Report Concerning Advance Pricing Agreements," April 18, 2011.

used. Further, as observed in the OEM distribution results, there is little impact on the PLI results regardless of interest rates when the balance sheet adjustment to the receivables is largely offset by the adjustment to the payables.

Conclusion

Terms of trade adjustments are arguably the most common financial comparability adjustments employed by transfer pricing practitioners. While adjustments made to the income statement to account for different trade terms between the tested party and comparable companies are commonly accepted, the corresponding adjustments to accounts receivable and accounts payable are often considered unnecessary especially when asset-based PLIs are used as benchmark ratios. This article argues that in certain cases, failing to make corresponding terms of trade adjustments to the respective balance sheet accounts would in fact undermine the reliability of the benchmarking analysis. The article uses the U.S. automotive industry as an example to show that the applicability of terms of trade adjustments on the balance sheet should be evaluated on a case by case basis and, where necessary such adjustments should be employed even when a balance-sheet-based PLI is used.

Table 4: Impact of Trade Terms Adjustments on PLI Results

(MM USD)	OEM Manufacturing Segment			OEM Distribution Segment		
	Imputed Interest			Imputed Interest		
	Unadjusted Profit	CP (0.15%)	LIBOR+ 2%(2.25%)	Unadjusted Profit	CP (0.15%)	LIBOR+2%(2.25%)
Sales	135,000	135,000	135,000	150,000	150,000	150,000
A/R adjustment	—	20	307	—	20	297
Adjusted sales	135,000	135,020	135,307	150,000	150,020	150,297
Cost of sales	127,000	127,000	127,000	135,000	135,000	135,000
A/P adjustment	—	1	20	—	21	310
Adjusted cost of sales	127,000	127,001	127,020	135,000	135,021	135,310
Operating profit	4,750	4,769	5,037	4,000	3,999	3,987
Δ in operating profit	—	+19	+287	—	(1)	(13)
ROA	8.5%	8.6%	9.0%	8.1%	8.1%	8.1%
ROCE	14.5%	14.6%	15.4%	17.8%	17.8%	17.7%