

***Coca-Cola* and Lessons to Avoid By State Transfer Pricing Auditors**

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In this article, Silva argues that the IRS's application of the comparable profits method in *Coca-Cola Co. v. Commissioner* cannot be used as a lesson by state transfer pricing auditors.

A quartet of three lawyers and one economist has criticized states' handling of transfer pricing corporate audits and has proposed lessons based on the recent success of the IRS in *Coca-Cola*.¹ The critique is mixed noise and fabled hypotheticals, leaving insufficient signal to evaluate it.² The policy recommendation is advocacy mixed with advice, and I shall consider this obscured palaver. My précis is that the quartet's parole is a logarithm function whose coefficient is less than one.

For an outsider, whose view of the case is based on the court's narrative, the success of the IRS in *Coca-Cola* points to rebuttal failures. I shall contravene the quartet's self-serving view of the IRS victory and show that the court opinion provides *no economic basis* for the policy recommendation that states follow the IRS in transfer pricing audit.³

The quartet writes: "The scope of the Tax Court's analysis illustrates *the extensive and demanding technical requirements* that the regulations impose on an application of the" comparable profits method.⁴ This overture is not convincing because the IRS's triumph over Coca-Cola reveals that no technical economic knowledge was used to persuade the court. The IRS required no economic expertise to select comparables from different countries and different levels of the market, select a misspecified return on the assets profit indicator to calculate imputed royalties based on tangible assets plus cash, and to calculate an unreliable interquartile range of the profit indicator. The court narrative of the IRS win shows no "demanding technical requirements" satisfaction, as I shall now discuss.

Contract Manufacturing

The IRS won asserting that the Coca-Cola foreign manufacturing affiliates (called "supply points") are contract manufacturers, expected to earn a "routine" return on assets. The IRS suffered prior defeats expounding this hypothesis.⁵

The IRS modified the prior 1996 accord with Coca-Cola that allowed the supply points a 5 percent "routine" operating profit margin on their annual revenue, plus 50 percent of the actual operating profit reported to the local tax administrations. The 1996 accord royalty payments for licensed-in intangibles by the

¹ *Coca-Cola Co. v. Commissioner*, 155 T.C. No. 10 (Nov. 18, 2020).

² Howard Berger et al., "States Can Learn Much From Transfer Pricing History — Or Be Condemned to Repeat It," *Tax Notes State*, Feb. 22, 2021, p. 779.

³ The IRS winning expert is a business partner of the quartet's economist joint author.

⁴ Berger et al., *supra* note 2, at 783 (emphasis added).

⁵ See Reuven S. Avi-Yonah and Gianluca Mazzoni, "Coca-Cola: A Decisive IRS Transfer Pricing Victory, at Last," *Tax Notes International*, Dec. 14, 2020, p.1419. Here, I shall not discuss the economic flaws of the IRS contract manufacturing hypothesis.

supply points can be calculated by using the simple formula:

1. $R(t) = 0.5[\mu S(t) - 0.1 S(t)]$, or
2. $R(t) = (0.5 \mu - 0.05) S(t)$, and
3. $Y(t) = 0.05 S(t)$

In equation (3), the operating profit prescribed for the supply points' "routine" function to manufacture trade secret concentrates and syrups, which they sell to "independent" bottlers, is 5 percent of reported revenue, and equation (2) determines the residual royalty payable for the licensed intangibles to be 50 percent of the operating profit above the 5 percent "routine" profit margin.

In the formulae above, $R(t)$ denotes the imputed royalty, $Y(t)$ denotes the operating profits (earnings before interest and taxes), and $S(t)$ denotes the net sales (revenue) of the supply points in year $t = 2007, 2008$, and 2009 . The coefficient μ is the *actual* operating profit margin of the individual supply points, which can vary from one year to the next. Except for Ireland, the supply points are in developing countries subject to location savings benefits and foreign exchange controls of weak currencies. These facts are not important to the IRS's winning position.

The IRS 1996 accord yielded an average outbound royalty rate of 13.2 percent, reaching 24.6 percent in Brazil and 27 percent in Chile. These are *extraordinary royalty rates*, but no empirical reasonableness test was narrated by the court considering external license agreements. The court repeated the platitude that the Coca-Cola intangibles are unique, even though substitutes are available for the relevant products.⁶

Super-Royalties

In the 2007-2009 audit, the IRS modified the formula of the 1996 accord and increased the outbound royalty accounts payable of the supply points to obey the new formula:

4. $R(t) = (\rho - 0.18) A(t)$

⁶"Unique" is from Latin *unicus* — sole, single, singular, one (capable of being performed in only one way). An object such as a patent or trade secret is either unique or not unique, and the Coca-Cola intangibles are valuable but not unique because they have substitutes, including coffee, fruit juice, and bottled water.

where $A(t)$ is the "operating" assets (including cash and equivalents) of the supply points in audit year t . ρ (ρ) is the actual operating return on assets of the supply points.

Equation (4) is misconceived, but to my knowledge the court did not describe any rebuttal to the IRS argument. This new asset-based formula increased the average royalty rate to over 26 percent, and the royalty rate assigned to the supply points in Brazil and Chile still exceeded this high figure.

First, the notion that tangible assets determine royalties (as postulated in equation (4)) is economic nonsense. If equation (4) is divided by net sales to find the royalty rate based on the revenue of the supply points, the imputed royalty rate is based on the tangible-assets-to-revenue ratio (called assets turnover) of the supply points.

In fact, royalties are not determined by tangible assets and cash held on the licensee's balance sheet. I developed a commercial database of royalty rates, which contains over 21,860 license agreements with disclosed royalty rates, and I cannot find uncontrolled license agreements whose royalties are based on tangible "operating" assets.⁷

Equation (4) implies that any change in the "operating" assets of the licensee is translated into a change in the royalty payable to the U.S. licensor:

$$5. \Delta R(t) = (\rho - 0.18) \Delta A(t)$$

which is absurd (economic nonsense) because the change in tangible assets may be unrelated to related-party transactions.

Second, the IRS definition of operating assets is unreliable because it includes acquired intangibles by some supply points (such as Brazil) and excess cash held by several supply points. Thus, the measure of operating assets is inflated because the acquired intangibles may be unrelated to the licensed intangibles, and because cash per economic definition does not earn income; the acquired intangibles do not earn the

⁷See <https://www.royalystat.com/>.

assigned return on assets.⁸ As a result, the imputed royalty is also inflated. For example, cash and equivalents in a major supply point (Brazil) averaged during the audit years 42.2 percent of total assets, which means that this supply point in Brazil was assessed royalties for licensed-in intangibles because it held excess cash.⁹

Interquartile Range of Return on Assets

Reg. section 1.482-1(e)(2)(iii)(B) (adjustment of range to increase reliability) provides that “the interquartile range ordinarily provides an acceptable measure of this range; however[,] a different statistical method may be applied if it provides a more reliable measure.”

The quartiles of univariate (single-variable) observations, such as a cross-section of company-based return on assets, have no explanatory factors. In this case, two underlying assumptions are vulnerable to attack. First, the relationship between operating profits and operating assets is assumed to be linear; second, the intercept is assumed to be zero.

For a group of 24 bottlers used as comparables, the IRS found an interquartile range of return on assets from 7.4 to 31.8 percent, with a median of 18 percent (p. 81 of court opinion).¹⁰ This means that both 7.4 percent of the operating assets of the individual supply points and 31.8 percent are arm’s length. One does not need economic training to conclude, *prima facie*, that this is an unreliable calculation of an arm’s-length range because the measure of “true” taxable income is too uncertain.

The court was satisfied that the IRS segmented the 24 so-called comparables to the supply points and selected six to determine the return on assets of the Latin America supply points. The interquartile range of three so-called comparable

bottlers from Chile and three from Mexico varied from 31.8 percent to 40.6 percent, with a median of 34.3 percent. Thus, Brazil (which together with Ireland suffered the biggest IRS adjustments) can report arm’s-length operating profits (without any local comparables found by the IRS) from 31.8 to 40.6 percent of its operating assets. The wide residual is imputed royalty payable to the U.S. licensor.

Game Highlights

The game highlights (court narrative) miss the important ebb and flow of the match (or mismatch), and a high-stakes game like *Coca-Cola* must have many missed scoring opportunities. As an outsider, the non-rebuttal of the frail (as an economic matter) IRS winning position is perplexing.

Here, I have not examined the flaws of the IRS application of the return on assets, except to say that it is misapplied to determine imputed royalties. The IRS uses the average assets between the beginning and ending of the year, which means that the right-hand side (operating assets) of the equation is averaged, but not the left-hand side (operating profits).

In principle, it is relevant that some analysts compute the return on assets measured at the end of year, or average only one side of the equation. The important point is that a game is good to watch when it is won by the victorious side playing a solid game. I agree with Paul Dirac that “laws should have mathematical beauty,” but I fail to see the beauty or the “demanding technical requirements” of the IRS procedures in *Coca-Cola*.¹¹

My conclusion is that the quartet is overreaching, and that the IRS’s application of the CPM in *Coca-Cola* cannot be used as a lesson by state transfer pricing auditors because the IRS application of the CPM selected wrong comparables, selected the wrong profit indicator to determine royalties, and determined an unreliable interquartile range of return on assets. ■

⁸ Including non-income-earning cash on the company’s operating assets is a misconception inherited from reg. section 1.482-4(b)(4)(i) (rate of return on capital employed). This shows that regulatory misconceptions cannot be accepted *au pied de la lettre*.

⁹ The Brazil supply point reported acquired intangibles on the balance sheet, but the IRS formula denied any compensation for using those assets because the IRS and the court imposed only a “routine” return to the supply points.

¹⁰ The IRS increased the number of independent bottlers used as comparables from 18 to 24, including 14 bottlers adopting the *Coca-Cola* trade name. See reg. sections 1.482-1(i)(4) and (5), which provide that “control includes any kind of control, direct or indirect, whether legally enforceable or not, and however exercisable or exercised.”

¹¹ Dirac’s dictum is “physical laws should have mathematical beauty.” See Abraham Pals et al., *Paul Dirac: The Man and His Work* 46 (1998).