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Location Savings Adjustment to Net Profits

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The OECD, UN, and United States transfer pricing rules recognize that tax administrations and controlled MNE (multinational enterprise) groups must consider *location savings adjustments* when uncontrolled comparable enterprises operate in different geographical markets from the tested party. Location savings adjustments are needed when we can measure (in different geographic markets; *e.g.,* UK versus Nigeria or South Africa, or US versus Brazil or Mexico) significant differences in wage shares and adopted technology measured by *incremental* capital/output ratios.

Transfer pricing rules have no established method of making reliable adjustments to account for differences in geographic markets. Only limited guidance is provided by the relevant tax authorities, but they are *ad hoc* and not guided by economic learning. See the *OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations, United Nations Practical Manual on Transfer Pricing for Developing Countries (2013)*, and US Treasury Section 1.482 Regulations. Additional guidance provided by case law has been unsatisfactory.

Here, we propose a general method to make this location savings adjustment that can be applied depending on aggregate or industry-specific data available (recalling comparable facts and circumstances).

Developing Country Comparables

In practice, *comparable enterprises* located in United States and United Kingdom are used to determine related party corporate income tax in developing countries respecting transfers of tangible property and provision of shared services. Thus, MNE comparables from United States are used to determine corporate taxable income in Americas, except Brazil. Likewise, MNE comparables from United Kingdom are used to determine corporate taxable income in Asia-Pacific (except for Australia, China, and Japan), Africa, Eastern Europe, and the Middle East. For example, South Africa's Revenue Service (SARS) uses comparables from United Kingdom.

Although more research is needed, we can establish that wage shares are higher in developed compared to developing countries. For example, the most recent net wage & salaries shares of the United States and the United Kingdom are, respectively, 0.574 and 0.563 (they are near neighbors), while in developing Mexico and India they are, respectively, 0.287 and 0.337 (distant from developed country wage shares).

Wage & Salaries Shares and Capital/Output Ratios

We reproduce an economic model from our prior article about Pygmalion Comparables to find a location savings adjustment formula. See Ednaldo Silva, "Pygmalion Comparables," 23 *Transfer Pricing Report* 1465, 3/9/2015, located at https://issuu.com/ednaldosilva/docs/ednaldo_silva_-_pygmalion_comparabl. See also our published commentary to certain OECD guidance about comparables in developing countries, located at http://www.oecd.org/ctp/transfer-pricing/royaltystatllc-conparability-and-developing-countries.pdf.

Eq. (1) is a national income *accounting identity* and is thus true by definition. Eq. (2) is a testable hypothesis that operating surplus (profit) is proportional to measured capital stock. Eq. (3) describes the profit rate determined by wage & salaries shares (ω) and *incremental* capital/output ratios (β). We substitute behavioral equation (2) into *accounting equation* (1), and divide the result by Y_i to obtain *reduced-form* model (3):

$$(1)\ \ Y_i \equiv W_i + S_i$$
$$(2)\ \ S_i = r_i K_i$$
$$(3)\ \ r_i = \lambda_i (1 - \omega_i)$$

where $\lambda_i = 1 / \beta_i$ is the *maximum profit rate* when $\omega = 0$.

Disparities in wage shares are represented by the inequality ($\omega_1 > \omega_2$), and differences in technology adopted by developed and developing countries are expressed by ($\lambda_2 > \lambda_1$).

The subscript $i = 1, 2$ counts pair-wise the *developed* country ($i = 1$) from which MNE comparables are selected, and the *developing country* ($i = 2$) in which such comparables are used to determine controlled MNE taxable income.

In the United Nations System of National Accounts (SNA), Y is *value added* gross or net of depreciation ("consumption of fixed capital"), W is *wages* & *salaries* (compensation of employees), S is gross or net *operating surplus*, and *r* is the computed gross or net *profit rate*. See http://www.oecd.org/sdd/UNA-2014.pdf

We avoid conceptual problems with aggregate K in eq. (2) by computing incremental capital/output ratios for both developed and developing countries. Incremental capital/output ratios are based on investment (CAPEX) data, and thus avoid K altogether. In equation (3), the profit rate is an unknown variable that we determine after computing

Greek alphabet omega and beta from pair-wise developed and developing country using industry-specific data reflecting the tested party's business (functions performed).

Location Savings Formula

We obtain a location adjustment adjustment formula by calculating the difference in the specified profit indicators betwen paired developed and developing countries:

$$(4)\quad r_2 - r_1 = \lambda_2 (1 - \omega_2) - \lambda_1 (1 - \omega_1)$$
$$r_2 - r_1 = (\lambda_2 - \lambda_1) - (\lambda_2 \omega_2 - \lambda_1 \omega_1)$$

where $r_2 - r_1 > 0$ because $\omega_1 - \omega_2 > 0$.

Eq. (4) can be written as our general location savings adjustment formula:

$$(5)\quad r_2 = r_1 + \varepsilon_1$$

where the location adjustment error is computed with formula:

$$(6)\quad \varepsilon_1 = (\lambda_2 - \lambda_1) - (\lambda_2 \omega_2 - \lambda_1 \omega_1) > 0.$$

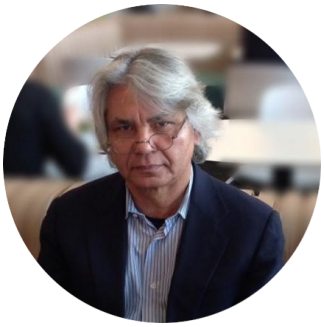
The Greek minuscule epsilon (ε) denotes the location adjustment (error) correction. Therefore, the estimated profit rate in the selected developing country can be expressed as the profit rate in the paired developed country *plus* a location savings adjustment measured by epsilon. These data are obtained from annual SNA published per country.

Data required to make this location savings adjustment are not onerous, just two factors β and ω, the same data used to compute the country-specific aggregate profit rate. For OECD countries, see Peter Hill, *Profits and Rates of Return,* OECD, 1979. Chapters 4 and 5 contain a detailed explanation of operating surplus as defined on SNA. Hill (1979)

preferred working with *gross* instead of net operating surplus (i.e., EBITDA instead of EBIT at the enterprise level) because of anomalies calculating cross-countries depreciation (consumption of fixed capital) allowances.

Conclusions

Given existing inequalities of wage & salaries shares in the global economy, a local tax policy mandating location savings adjustments is inescapable to determine more reliable arm's length MNE taxable income in developing countries where local comparables may not be found. Use of location savings adjustment formula (5) can assist tax administrations reduce profit shifting from developing countries and prevent the distortion of controlled MNE taxable income. Eq. (5) can assist also MNE groups reduce measurable audit risk of transfer pricing adjustments by increasingly savvy developing country tax administrations. Location savings adjustment formula (5) can provide more tax certainty to tax administrations and to MNE groups.



Ednaldo Silva, Ph.D. is founder and managing director of **RoyaltyStat**. He helped draft the US transfer pricing regulations and developed the comparable profits method called TNNM by the OECD. He can be contacted at: esilva@royaltystat.com.

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