Burden of Proof in Transfer Pricing of Equity Derivatives

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Abstract

Equity derivatives and transfer pricing have become a scholarly focus and financial engineering become an emerging field as the 21st century unfolds. Although the derivatives market has grown exponentially, there is a need for substantial research on transfer pricing.

This article focuses on a transfer pricing litigation case involving global trading in which the National Tax Tribunal in Japan reversed the Tokyo Regional Tax Bureau's decision. Regression analysis was used to examine how the tax tribunal applied the residual profit split method to reject a taxpayer's choice of the hedge fund method.

The hypothesis in this article is: There is a correlation between the number of hours a stock trader works or provides a service and the profit the stock trader earns, which could serve as two variables to test an arm's length price for relative contribution using the residual profit split method. A test of difference in the means would prove that the difference between two variables would affect the significance of the mean price. Regression analysis has been widely used in transfer pricing disputes since it has predictive power to test the assumptions of a model or a transfer pricing method.

The ordinary least square verifies if work on a particular activity is for one related company, then the whole cost of the work with a markup would have to be allocated to the related company. When work involves more than one company, the costs should be allocated in proportion to an objective factor. An objective variable can be allocated using an analysis of working hours derived from a timesheet. Other elements related to turnover, headcount, and telephone calls were used as a way of apportioning the costs.

Keywords: Burden of proof, equity derivatives, transfer pricing, integrated trading, centralized product management

1. Introduction

The article analyzes how an intangible like hedge-funds-related litigation case can provide profits based on a transfer pricing method rather than a hedge fund model. This article particularly focuses on a court case involving global trading, which has become landmark litigation in Japan for three reasons.

(1) It was the first transfer pricing ruling in Japan involving equity derivatives that rejected the hedge fund model.
(2) The burden of proof presented at the court used regression analysis to prove the validity of the residual profit split method.
(3) The profit split indicator and the calculation of risk including income based on the number of services.

The issue in the global trading case relates to the transfer pricing method. The taxpayer claimed that the hedge fund model is appropriate due to the complexity of the derivative and because there were no comparables. The comparability of hedge fund data to the related party transactions was based on the specific facts and circumstances of the hedge fund business.

In the global trading case, the taxpayer had two offices, one in Country X (Japan) and one in Country Y, each issuing stocks at 100%. Company A in Japan (XA) marketed derivatives to Japanese customers and created derivative products. Company A in Japan provided information on derivative products through interbank transactions and engaged in risk management of all financial products.

Financial business was conducted through sales marketing of equity derivatives by XA, Tokyo-based traders. Each trader in Country X and in Country Y engaged in managing clients' tailored stock investments. Traders' remuneration was based on the transaction. Risk management was based on NASDAQ and was in accordance with loss-inducing equity derivatives related to high volatility. The market fluctuation was managed based on dynamic hedging that focused on comprehensive management that targets maximum profit.

When the taxpayer's report on corporate income tax was submitted, the Tokyo Regional Tax Bureau made an initial assessment in 2005 for the tax year from 2000 to 2003. The assessment was based on equity derivatives and a Japanese subsidiary was affiliated as a foreign booking financial entity.

The National Tax Tribunal rejected the Tokyo Regional Tax Bureau's (TRTB) decision on July 2, 2008 because the TRTB excluded the additional measurements for "relative contribution" based on market risk and management functions. A point of significance for this case is the decision by the Tokyo Regional Tax Bureau. It was one of the few cases where the National Tax Tribunal reversed previous decision subsequent to the Adobe Japan case. The sequence of reversals signified emerging views on transfer pricing litigation in Japan.

The tribunal argued that transfer pricing requires the interest rate of an intercompany loan to be backed by third-party evidence. The tribunal also argued that the inclusion of the internal credit rating could be implemented because an internal credit rating can define the applicable intercompany credit spread that is documented in an intercompany loan document. As for relative contribution, the tribunal added interest expenses calculated from the capital used for business but excluded the market risk, which relates to interest expense.

2. Literature Review- Critical Legal Theory and Burden of Proof in Transfer Pricing

From the optimal and equilibrium based transfer pricing theory, the theoretical departure for burden of proof in transfer pricing litigation is approached from the critical legal theory's point of view. Transfer pricing theories and methods from critical legal theory are an essential theoretical departure since transfer pricing involves hidden hierarchical power structures in international taxation, tax treaties, foreign tax credits, and business practice within a country or between countries.

Business culture is considered inseparable from the managerial decision-making process, especially in the pricing of intercompany transactions that take place between affiliated businesses. In critical legal theory, culture is essential in forming the pattern of business or legal practice in which the attribution of power relationships is embedded. The critical theory focuses on the issue of who inherently has the bargaining power or initiative.

In critical legal theory, the traditional demarcation between the mainstream and the periphery is deemed to be the product of the power structure within the society. For instance, data from government white paper would take priority over "insignificant" data. In critical legal theory, there is no "significant data" or "insignificant data". All data are treated with equal importance. From such perspective, the "false positive" has become a concept in international taxation issues. When "big data" is used to detect suspicious transactions, analysis of

data can detect whether a six-year-old girl is being suspected of transferring funds.

From critical legal theory, the Japanese tax litigation is analyzed from the power structure. Tax authorities such as the National Tax Agency or the National Tax Tribunal are treated as a "powerful" entity whose decision deemed to be final and cannot be easily challenged by "powerless" taxpayers who have to be in agreement with the principle of presumption.

For instance, the Fukuoka High Court decision in 1985 held that the burden of proof was on the tax authority. Another landmark tax litigation is "The Bank of Tokyo" case on October 8, 2003 which depicts the particularity of Japanese tax litigation. The case has been a landmark case in a sense that the tax authority was allowed to enter into reconciliation, not as court litigation. At the high court, the reconciliation was achieved at the first trial between Tokyo Ward as a defendant and the Bank of Tokyo as the plaintiff. The decision resulted in Tokyo Ward paying the adjusted tax return in the agreed amount between the two parties.

From these tax litigations, it is assumed that the tax authority has the burden of proof and cases related to the shift of burden of proof to the taxpayer are limited. Typical issues related to burden of proof include the level of evidence, accumulated taxation, dividing necessary expenses and loss, tax avoidance or tax evasion, denial of avoidance, and international taxation.

2.1 Critical Legal Theory and the Logic of Burden of Proof in Transfer Pricing

The notion of allocation in Japanese civil law is different from the common law notion of allocation of the burden of proof. In common law, the legal burden of proving all facts essential to claims normally rests on the plaintiff in a civil suit. The difficulty lies in the need to prove a negative fact or situation within one party's knowledge. In civil law jurisdictions, the burden of persuasion may be dominant in the absence of a jury system compared to the reliance on the burden of proof. In civil law, the burden of proof refers to the duty of each party to prove their claims to convince the judge.

The cause of the inherent limitations imposed on the taxpayer is due to the built-in logic of burden of proof. The logic of burden of proof requires a taxpayer to fulfill the burden of persuasion and does not have a chance to present burden of production. The taxpayer might have the burden of persuasion when and if the court's burden of production is not sufficient. The burden of proof does not automatically shift from the judge to the taxpayer. The inherent nature of burden of proof in transfer pricing assumes that the taxpayer has less bargaining power, to begin with.

2.2 Transfer Pricing Issues and Burden of Proof - Against Hedge Fund Model

Against the hedge fund model, the tax tribunal stated that a transfer pricing method according to the Special Taxation Measures Law (STML) Article 66-4 (2) on comparability was required. The tribunal stated that "no instances could be found in the derivatives field of a set of functions, such as front-end operations marketing, and trading, being dispersed among unrelated parties through service provision transactions with unrelated parties."

The taxpayer involved in the case argued that due to the comparability issue, the hedge fund model can elicit an arm's length transaction. However, the tax tribunal rejected the hedge fund model and adopted the residual profit split method for an arm's length transaction.

The tax tribunal stated that the rationale of the residual profit method must be based on the split among three categories: (1) to the taxpayer, A financial firm, (2) to parent financial firm A in Japan, and (3) the subsidiary of firm B in Country Y as a related party

The taxpayer argued that the foreign related party's contribution would account for the cost of profit such, as "opportunity cost," in addition to the traders' personal cost.

The tax tribunal argued that the global trading firm XA was categorized as an integrated trading firm. The tax tribunal stated that the categorization was based on the Organization for Economic Co-Operation and Development (OECD) classification. The OECD classifies global trading into three types of activities: (1) integrated trading, (2) centralized management, and (3) separate enterprise trading which involves multiple jurisdictions in carrying out transactions. Based on the classification, the tax tribunal stated that timing of distribution of inter-group dividends, functions, and risk was not the issue related to the arm's length transaction for this particular global trading case. The tax tribunal emphasized that integrative trading involves each jurisdiction and thus, "objectivity and certainty" should be the core concept.

The tax tribunal stated the rationale for applying the residual profit split method and the reasons why the Three Basic Methods cannot be "the best method." In reference to the OECD Guidelines, paragraph 115, the tribunal evaluated functions performed, including assets used and risk assumed by personnel. The tribunal explained that commissions from sales activities would be used as data for the comparable uncontrolled price method.

The paragraph 115 of the OECD Guidelines states that the Comparable Uncontrolled Price Method is not suitable for sales and marketing functions in hedge funds due to the complexity of the business. Causes of complexity are "the only data available between independents." The paragraph 115 further states that the data will "relate to the basic sales functions which raise the issue as to whether reasonably accurate adjustments can be made to account for the extra functions performed and risks assumed."

Prior to implementing the residual profit split method in the Global Trading case, the primary task was to distinguish booking functions and profit incurring entrepreneurial functions. Remuneration for booking functions is based on routine business, whereas profit incurring functions are classified as non-routine remuneration due to substantial risks. When arm's length returns are vested to the routine functions, residual profits are divided according to split factors.

2.3 Against Hedge Fund Model Pursuant to Transfer Pricing Guidelines in Special Taxation Measurement Law Enforcement Order and Split of Profit under a Hedge Fund Model

The taxpayer's argument was based on the profit split in a hedge fund model. The profit split in a hedge fund is based on a hedge fund investors' entitlement to profit in return for high risk. Therefore, the hedge fund method is not based on the taxpayer's equity derivatives. In the derivative financial services, hedge funds model charges within the range of 1%-2% of assets, these accounts for operating costs and the management fee. For an incentive fee, 20% of the profit would be rewarded.

The taxpayer claimed that contracts formed with hedge fund managers and investors are separate because managers and investors have a different return on capital's contribution. The hedge fund managers choose to centralize risk bearing functions for risk management and separate trading and risk management.

The tax tribunal rejected the hedge fund model since hedge funds engage in trading in arbitrage opportunities that were not consistent with global trading transactions. Moreover, the taxpayer's business activities consisted of sales and marketing of derivatives.

The tax tribunal commented on the reasons for rejecting the hedge fund model based on the STML Enforcement Article 39-12 (8) clause on income generation. The tribunal stated that the taxpayer did not engage in income-generating business. One of the reasons was that a hedge fund model assumes high risk difference from the taxpayer's equity derivatives business based on the relative contribution in transfer pricing.

The hedge fund model was not admitted because the scope of risk was not the taxpayer's primary business purpose. Measuring the level of contribution in relation to the income generating estimate element was deficient in the global trading case according to STML Enforcement Article 39-12 (8), which is about income generation.

3. Analysis

3.1 Rejection of Hedge Fund Model Due to Company's Proprietary Trading

The tribunal argued that the data presented by the taxpayer was drawn from proprietary trading which inherently was not objective because of a potential conflict of interest involved. The tax tribunal stated that proprietary trading as a business strategy lacked a reliable degree of comparability between hedge funds and global transactions with investment banks.

Hedge fund investors charge fund managers with the same objective. Depending on the facts and circumstances, the remuneration arrangements commonly observed in hedge funds may provide a reasonably reliable comparison for allocating profits involving participants in a firm's "proprietary or quasi-proprietary trading arrangements."

The tax tribunal reiterated that the hedge fund model is appropriate in a "proprietary trading business." The tax tribunal further referred to Paragraph 162 of the OECD Guidelines which states the following about the hedge fund model.

The hedge fund model may be a useful analogy for a proprietary trading business or a trading book in which the strategy is to earn a significant proportion of the income by taking unhedged, proprietary positions to generate significant trading gains…the remuneration arrangements commonly observed in hedge funds may provide a reasonably reliable comparison for allocating profit between participants in a firm's proprietary or quasi-proprietary trading arrangements.

The tax tribunal countered that the taxpayer's claim that it was not "proprietary" because the business was mostly engaged in "booking" functions.

The taxpayer argued the hedge fund model is valid since the remuneration distribution functions were according to the nature of the hedge fund. It claimed that one reason for this is that global trading case is characterized as an integrated function involving the hedge fund managers' business. However, the tribunal stated that traders were rewarded based on the capital raising functions directly linked with a portion of the management fee and the performance fee which have been inconsistent. Another crucial reason was that the taxpayer's business did not identify distribution as a routine business function and did not separate rewarding the traders with a markup on costs.

The taxpayer raised the comparability issue in relation to the benchmarking distribution. The benchmarking distribution in the hedge fund context has traditionally been difficult because of the unavailability of third party benchmarks and lack of internal comparable. While the market practice should reward distribution with 20 or 25% of the management and performance fee, the taxpayer asserted that benchmarking has tended to draw the distribution rate from the long-term fund that makes comparability unrealistic.

From the transfer pricing objectives, the hedge fund method does not depict the facts and circumstances. One of the reasons is that the hedge fund method would likely to result in higher profits from the proprietary booking being allocated to the different trading locations.

The tax tribunal disputed that the hedge fund model can be used in applying the model to the trading location. The tribunal stated that the booking location may follow the OECD guidelines and adopt a reasonably comparable price for benchmarking. However, the tax tribunal focused on the residual profit split method

rather than the benchmarking comparability in hedge fund distribution. In the global trading business case, the financial firm XA Co. was located in Japan and YB Co. was in a foreign country, and the investment management as an integrated team was divided in different places. Businesses were located in different places. Thus, the tax tribunal used the residual profit method for allocating individual performance and contribution.

4. Rejection of Taxpayer's Use of Weighted Average Cost of Capital (WACC)

The tax authority rejected the use of WACC in producing an arm's length price for two reasons. The tax authority claimed that WACC cannot be a way to determine the funding cost. WACC is based on the cost of equity assuming the speculative return to investors and not an actual expense, which lacks objectivity. WACC assumes the cost of equity based on speculative return.

The decision of the tax tribunal to reject WACC was based on the analysis that the cost in WACC is different from the actual cost. The tribunal stated that WACC reflects the theoretical estimate from the return yield which lacks objectivity and certainty. The tax tribunal also reiterated that WACC cannot satisfy the requirements in the Special Taxation Measures Law Enforcement Order 39-12 (8), which focuses on the income-generating contribution and not the cost.

The relationship between proprietary transaction and procurement costs were the two main issues for WACC. The tax tribunal recognized that the taxpayer's business is primarily related to profits from proprietary transactions. Since the taxpayer's procurement costs were from proprietary transactions, the tribunal rejected the argument that procurement cost is a part of the split element.

The taxpayer countered that the issue of the contribution must be related to the notion of "opportunity cost" and credibility of the company in the WACC. The taxpayer argued that the OECD guidelines are for benchmarking purposes. For equity derivative firms that decide on tax advantages, they must utilize tax opportunities that can create shareholder value. Potential tax advantages were claimed by selecting a tax efficient location for treasury and finance activities, they have optimized the capital structure and developing structured finance instruments for transfer prices. For the taxpayer, WACC is a criterion to use when seeking transfer pricing as a tax advantage.

4.1 Rejection Due to the Inapplicability of the Mark-to-Market Rule

The tax authority's decision to reject the WACC was also related to the absence of the mark-to-market rule. The tax tribunal addressed the mark-to-market taxation at realization in reference to Article 61-6 of the Corporate Taxation Law. The tax tribunal argued against the relevance of transfer pricing to the hedge fund manager: how the distribution fee is calculated, different components of the fee, the range of functions that agents perform for hedge fund managers, factors influencing the agents' fee, and duration of the payments made to agents according to Corporate Taxation Law Article 61-6.

The point of Article 61-6 of the Corporate Taxation Law is the notion of the mark-to-market rule. The portion of a derivative as a hedge against possible loss cannot be deemed as income under the mark-to-market rules pursuant to Corporate Taxation Law Article 61-6.

The Article 61-6 of the Japanese Corporate Taxation Law particularly addresses the realization issue. It is equivalent to Section 1256 (a) of the U.S. Internal Revenue Service's Internal Revenue Service Code (which addresses a mark-to-market rule. Mark-to-market rules are for the taxpayer who ascertains the income or loss of asset value by calculating at the beginning and end of a given period.

The tribunal rejected WACC because it does not have the mark-to-market rule that can be used for calculating income. Investment managers calculated profits by deducting the expenses related to routine business functions with a markup on the costs. If portfolio management functions are split between Company A in Japan and Company B in country Y, the residual profits and revenues computation are based on the performance of the individual investment managers in each location because the location is most closely related to the profit generated by each office.

Another reason why the tax tribunal rejected WACC was because of the absence of the role of capital and split elements in WACC. WACC does not address the role of capital but focuses on risk. The tribunal stated that in order to measure the contribution, the profit has to be based on capital. The residual profit split method would recognize the measure of contribution based on capital and not on WACC.

The tribunal assumed that the measurement of traders' contribution based on capital reflects the general trend in global trading firms. Global trading firms would usually try to optimize the capital structure to develop structured finance instruments. When the lender is located in one place, traders' income would be computed either as a capital receipt, which is not taxable, or it can be offset by capital losses.

5. Analysis on Burden of proof in Residual Profit Split Method over Hedge Fund Model

5.1 Reference to OECD Guidelines for Residual Profit Split Method

When the hedge fund model and WACC were rejected, the tribunal stated that the residual profit split method can be implemented. The Residual Profit Split Method is based on the Article 39-12 (8) of the Special Taxation Measures Law, which states that when there are levels of contribution and risk management business in relation to traders' activities, the traders' remuneration and interest payment to maintain the regulatory capital requirement were used in the profit split element. In addition, Part III of the 2010 OECD Transfer Pricing Guidelines was in reference to support of the tribunal's choice of the profit split method. Residual profit split methods are used "when transactions are highly interrelated and may not be evaluated on a separate basis and when both parties contribute significantly to the development of intangibles."

The tax authority presented the computation of profits. The tax authority stated that the taxpayer's business was not related to client-centered activities but to commission-based hedge fund business as a single set of functions. The tax tribunal's computation was based on the taxpayer's basis for profits plus commission-based profits that are categorized as positioning.

Profits = Taxpayer's company group as a whole + transactions, including positioning

Profit split elements were in reference to the profit indicator stated in the Article 39-12 (8) of the Special Taxation Measures Law Enforcement Act The first split element was from a hedge fund trading business and the second split was from contributions. The quantification of market risk was not specified but the overall risk factors were included in split elements.

5.2 Relative Contribution

In the absence of existing comparable, the arm's length computation of the relative contribution of the profit split method had to be justified. The issue that the tax tribunal raised was the relative contribution of traders and hedge fund managers based on the gain or loss in transactions.

The tax tribunal referred to Cabinet Order Article 121-2, which states that derivative transactions are deemed effective for reducing an amount of loss on assets to be hedged when the effectiveness ratio is between 80/100 and 125/100 in any of effectiveness judgments between the time of carrying out the derivative transactions and the end of said accounting period.

The tribunal addressed the structure of the derivative transactions that are carried out to reduce the amount of loss or gain on assets to be hedged and the ratio would be set according to two classifications.

(i) When the market value of the assets to be hedged in the transaction is at the price at the time of derivative transactions exceeds the market value at the end of an accounting period or the value at the time of settlement of the derivative transactions, the ratio is computed by dividing the gain on the said derivative transactions by the exceeding amount.

(ii) When the market value of assets to be hedged at the end of an accounting period or the value at the time of settlement exceeds the value at transaction, the ratio is computed by dividing the loss on the derivative transactions by the exceeding amount.

The tribunal's computation of the relative contribution was in reference to Paragraph 185 of the OECD Guidelines. But the taxpayer argued against the passage "where compensation is used to measure both trading and marketing functions, the compensation of the traders could be multiplied by 1.5 where it could be demonstrated that trader compensation results increase earnings by 1.5 times the profit earned from marketers' compensation."

The taxpayer claimed that, based on the structure of the taxpayer's business, the computation cannot be adopted in a form of "1.5 times the profit earned from marketers' compensation." The taxpayer argued that their business structure was based on three different categories.

XA – in marketing the hedge funds
YB – client-need based derivative trading
Interbank – received information from XA and engaged in risk management

From the structure of the business, the balance sheet and the arm's length "relative contribution" to the profit is computed:

Arm's Length Profits = Profit from A + Profit from XA + Profit from YB

Profits are calculated from the parent A and subsidiary of A Co. in the country X and the subsidiary of B Co. in the country Y was subject for the profit split and for computation of contribution

The taxpayer stated that the profits are to be split so that they have to separate the salary of a marketer, trades, back observer, and the transaction costs. However, the tribunal claimed that the taxpayer business entity is not a separate entity but was part of "an integrated group." Thus, the computation should be:

Taxpayer's business as one entity + profits from clients + profits from proprietary trading

The tribunal did not recognize the source of the taxpayer's business from separate entities since each entity did not bear market risk because each business conducts a client-based transaction. The tribunal concluded that both A Co. in Japan and B Co. in Country Y did not bear market risk since the fees from clients was deemed to be a source of profit

5.3 Interest Expense Added to the Relative Contribution

Between the taxpayer and the tax tribunal, perspectives on the relative contribution with regard to interest expense were different. The tribunal stated that the interest rate should be calculated from the ratio of interest expense to liability on an overall group level.

Interest = ratio of interest expense to liability on overall group level

Expenses incurred from the interest rate are calculated based on the risk in managers' performance. In addition to the interest rate, the tribunal argued that dividends cannot be interpreted as profit pursuant to the STML Enforcement Order 39-12 (8), which states that dividends from the interest cannot be deemed as a contribution to the profit.

5.4 Procedural Profit Split Based on Relative Contribution in the Function

In addition to the increase in the interest rate according to the internal credit rating, the Tokyo District Court determined the relative contribution of each location for the measurement of factors. The tribunal categorized the taxpayer's financial activities into (1) trading, (2) market risk management, (3) sales, (4) settlement, legal, credit research, and accounting, and referred to Paragraph 186 of the OECD Guidelines.

Where the function(s) are performed in more than one location, it will be necessary to determine the relative contribution of each location in the performance of the function. Under a multi-factor formula, it will be necessary to determine the relative contribution of the various locations under each factor. For people, functions and compensation of personnel performing those functions in each location could be used as a factor that reflects the relative contribution of that location to the earnings in the global trading profit.

This is on the basis that there is a correlation between earning profit for the firm and earning compensation for the individuals. The correlation arises because of the performance of key global trading personnel, especially traders, risk managers and specialized marketers, which is crucial to the profitability of global trading.

The residual profit split method separated trading with booking activities having the allocation in the range of 10-25% from profits derived from trading activities. The reminder to the booking location is identified based on sales and marketing allocated between the trading and booking locations.

The tribunal did not include traders' compensation as the relative contribution to the business. The relative contribution made by functions performed by risk managers who were engaged in trading activities. The relative contribution was rejected because traders were not engaged in activities related to market risk since they were engaged in proprietary activities.

6. Regression Analysis in Burden of Proof

6.1 Burden of Proof and the Validity of the Residual Profit Split Method and a Relative Contribution

The tax tribunal excluded the credit risk functions but included the taxpayer's business as an aggregated single entity, adding profit from clients, profits from proprietary trading, and interest to measure the traders' compensation as a relative contribution.

The burden of proof was based on the profit indicator and regression analysis used to find the reliability between the domestic and foreign-related parties, the relationship between traders' working hours or service and the profit or income.

The tribunal had the burden of proof that the labor cost was one of the factors that the trader and business contribution based on rational adjustment. Reasonableness of contribution based on the "relative contribution" was computed. The taxpayer argued that traders' stipend or salary cannot be included in the division element where all risk management business was comprehensively based because the trading business was primarily based on selling and purchasing client equity derivatives. The tribunal rejected the argument and stated that when the option is based on the original assets, which are stocks, the internal risk would be transferred to the foreign-related party who is the party in the contract. The tax tribunal stated that a foreign related party would receive an option fee in lieu of compensation for risk transfer. If the received option fee from clients were higher than the fair market value, then the fee would be deemed to be a profit. The tax tribunal concluded that a fee-based business cannot be directly linked to capital risk and excluded a risk factor in the residual profit split method.

6.2. Validity of Residual Profit Split Method

Regression analysis attempted to seek a correlation between the total work hours and service on research and development. Based on the factors such as the number of work hours in the service sector and computation of profit in relation to the number of hours of work, the estimate of income can be calculated using regression analysis since the service sector is an intangible property.

In order to seek the correlation between the two variables, the total hours of work and income from the trading service, regression analysis was applied. The table shows the contribution in U.S. dollars all in zero. The original data, as it was disclosed, has no actual Yen amounts. The amounts are all zero and the actual dollar amounts are not shown.

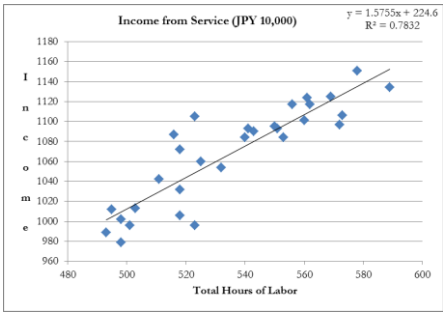
Table 1: The Year and the Amount of Remuneration (income)

Date	Amount	Date	Amount	Date	Amount
April 2000	0000	April 2001	0000	April 2002	0000
May 2000	0000	May 2001	0000	May 2002	0000
June 2000	0000	June 2001	0000	June 2002	0000
July 2000	0000	July 2001	0000	July 2002	0000
Aug. 2000	0000	Aug. 2001	0000	Aug. 2002	0000
Sept. 2000	0000	Sept. 2001	0000	Sept. 2002	0000
Oct. 2000	0000	Oct. 2001	0000	Oct. 2002	0000
Nov. 2000	0000	Nov. 2001	0000	Nov. 2002	0000
Dec. 2000	0000	Dec. 2001	0000	Dec. 2002	0000
Jan. 2001	0000	Jan. 2002	0000	Jan. 2003	0000
Feb. 2001	0000	Feb. 2002	0000	Feb. 2003	0000
Mar. 2001	0000	Mar. 2001	0000	Mar. 2003	0000

From the limited information, profit in relation to the number of hours of work has been computed based on factors such as the number of work hours in the service sector. Since the service sector is an intangible property, the estimate of income can be calculated using the regression analysis.

Table 2: Hours of Work and Income

Year	Hours of Work	Income from Services (JPY10, 0000)	1.575485888
1	493	989	
2	498	1,002	
3	498	979	
4	503	1,013	
5	495	1,012	
6	511	1,042	
7	523	996	
8	501	996	
9	518	1,032	
10	518	1,072	
11	518	1,006	
12	516	1,087	
13	525	1,060	
14	523	1,105	
15	532	1,054	
16	541	1,093	
17	540	1,084	
18	551	1,093	
19	560	1,101	
20	553	1,084	
21	556	1,117	
22	550	1,095	
23	543	1,090	
24	569	1,125	
25	572	1,097	
26	562	1,117	
27	573	1,106	
28	589	1,134	
29	561	1,124	
30	578	1,151	



In order to test the correlation between the total hours of work and income from the trading service, regression analysis was applied.

The result of regression analysis

Multiple Correlation Coefficient R	0.381818898
Multiple Coefficient Determination R^2	0.145785671
Adjusted R^2	0.115278016
Standard Effort	19.83406425
Observation	30

ANOVA

	Degrees of Freedom	Variation	Distribution	Observed Distribution	Significance Level F
Regression	1	1879.877085	1879.877	4.778859	0.037336
Residual	28	11014.92293	393.3901	n/a	n/a
Total	29	12394.8	n/a	n/a	n/a

The result of an ANOVA shows that the P-value was below 5%, or 1.296. When a P-value is less than 5%, the reliability can be further used for t-statistics.

The income from the trading service in Y ordinary least square is generated. R^2 indicates that the split proportion percentage of relative contribution and can be divided among the head office in Tokyo, the XA firm in Country X primarily dealing with marketing, and YB firm in Country Y engaged in trading with banks.R^2 calculation is valid since the risk factors related to the XA firm was not included.

The result is Y = 1.2196 x + 417.1 is understood to show that Y as the ordinary least square method estimates the income from the service. Thus, Y = 1.22 x 500 + 417.1 = 1027 would support the hypothesis of estimated income based on the total work hours and service.

The Y ordinary least square did not include the risk functions due to the "absence of the entrepreneurial functions." Paragraph 261 of the OECD Guidelines, defined its purpose as "in order to determine the relative contribution of the key entrepreneurial risk-taking functions performed in the different parts of the enterprise."

The R^2 = 14% from the Y ordinary least square and it particularly verifies the residual split method addressed by the tax tribunal in an objective way and can be used as proof to argue against the hedge fund model. Labor cost or remuneration of traders as an element of division can be more convincing if the trader's remuneration is calculated in proportion to the profit. The outcome of Y in numbers would serve as a criterion for this proportion. At the same time, the result suggests the application of the least square method can be a "simple" instrumental in computing allocated fees between a booking service and a trading service.

In global trading in which comparable cannot be quantified, this case proves that the residual profit split can satisfy the objectiveness of the method. The split elements were based on salary or other human resource-related expenses, but not on risk or risk management. The taxpayer claimed that risk management was deemed to be an opportunity cost and regulatory interest to meet the minimum interest rate according to regulation. The tax tribunal was against the split element based on risk management due to the predominant business activities where fee-based booking

services are not directly related to market losses.

The compensation of the subsidiaries used for booking proprietary trades has historically caused controversy as tax authorities in the region have adopted different positions regarding the applicability of the OECD Guidelines on this topic. However, results from the regression analysis verify the correlation between labor cost and traders' business contribution.

Derivative-related transactions are integrative and functions can be dispersed among foreign-related parties as a "single unit." It would be difficult to determine the revenues of each foreign-related party. However, by identifying the correlation between labor cost and working hours, the profit split method can prove the allocation of the overall profit according to each foreign-related party's "relative contribution." Relative contribution was according to the proportional adjustment and thus, R^2 verifies the reasonableness of contribution. "Reasonableness of contribution" was computed to be within the amount of permissible risk allowed in the fee-based transactions.

The taxpayer argued that the company as a group primarily engaged in selling and purchasing client equity derivatives and inherently involved more risk than the "amount of permissible risk."

The tax tribunal's argument was that when the option is based on an original asset, such as stocks, internal risk would be transferred to the foreign-related party who are parties by contract. For example, in Country Y, the foreign-related party would receive option fees in lieu of compensation for risk transfer. If the received option fee from clients is higher than the fair market value, then, the fee would be deemed to be profit.

The taxpayer's scope of expense management based on stock fluctuation by hedging and the loss was deemed to be management cost. The tax tribunal did not reject the scope of market risk and its relation to increased management cost. The increased hedge cost derived from management was due to not having profits, but trying to seek profits within the scope of market risk.

The taxpayer's extended argument on risk management was based on the profit division index according to the Special Taxation Measures Law Enforcement Order Article 38. The taxpayer argued that procurement cost had to be adopted. However, this was rejected because "risk cannot be based on estimation." Issues related to whether the comprehensive risk management perspective could have included procurement cost in the regulated capital in Japan and Country Y remained unaddressed. The taxpayer claimed that the profit split index in the STML Article 38 did not reflect on the difference in the actual hedge fund's business and the taxpayer had been engaged with "the role of capital" in the general hedge fund industry.

7. Conclusion - Generalizations on Hedge Funds

The ruling by the tax tribunal suggests two further research questions. One is whether the hedge fund model can further be applied to global trading firms. The other is whether similarities between the hedge fund profit split and residual profit split can be proved. Furthermore, profit distribution according to a hedge fund would be under what reference or referential point in the field of global trading remains as additional issues.

Critiques have pointed that the residual profit split applied in the global trading case was in reference to the OECD Guidelines in terms of transfer pricing.

The taxpayer asserted that the financial capital in a hedge fund is at greater risk than the industrial capital. Returns on financial capital may be less volatile and more predictable than returns on industrial capital. Because so much of their capital is liquid, financial institutions would have greater flexibility than their industrial counterparts in locating their capital in

low-tax jurisdictions while operating their business elsewhere.

The taxpayer commented that the residual profit split method did not reflect the element related to attribution of income to foreign-related firms. Nevertheless, the tribunal made a reference to OECD Paragraph 159, which addressed the issue of hedge funds and comparable. The tax tribunal's argument supported by Paragraph 159 was not entirely convincing.

The taxpayer relied on the general principle of a hedge fund, assuming that there are differences in the comparable and that when the fund managers are seeking high net interest from the investors' perspective, they have rights to claim the profits based on share or dividends. After the ruling in this global trading case which denied the existence of comparable that act like its own hedge fund business, the general practice of implementing the hedge fund model in transfer pricing may have to be re-evaluated.

7.1 Remaining Issues on the Role of Capital and Interest Rate in Regulatory Capital

The taxpayer addressed the role of capital and hedge funds trade in financial products by focusing on the primary economic function of derivative products. The taxpayer's main business objective is to reduce its clients' risk and provide means for them to raise capital more efficiently by reducing the cost of capital.

Contribution elements in the residual profit split method have been questioned by the critiques due to the tribunal's attempt to link contribution to the role of the capital. The tax tribunal emphasized that "the role of capital" in the hedge fund industry relates to the notion that the cost of debt as deductible, whereas the cost of equity is not. The tribunal reiterated that the level of "relative contribution" among traders and business risk can be "best" presented in the residual split profit method. The tribunal admitted that for the residual profit split amount division based on the trader, labor cost and interest payments are valid since there is a correlation between the labor cost and the regulatory capital.

However, in the tax tribunal's final decision, the question of "the role of the capital" remained unanswered. Capital in financial institutions assumes risk and plays a different role in the industrial sector. In the industrial sector, capital is "locked up" in production assets or inventory. The principal risk to which the capital is exposed depends on the managerial competence or the industry-wide decline. In contrast, the capital required to operate a financial institution is generally invested in liquid assets and is subject to large and immediate customer claims based on external events.

The global trading case in Japan is a good example for fund managers who are able to make the most of the transfer pricing to manage their tax rate effectively. Moreover, the burden of proof through regression analysis would be necessary.

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