Research Article

Transfer Pricing and Organizational Structures in Multinational Companies - to Formally State of Knowledge of Theoretical Analysis.

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Abstract

Multinational companies have incentives trainee's use-tax differences between countries and make transfers of profits in low-tax countries through transfer pricing. At the same time, however, they are also often used the internal coordination and possibly as a strategic competitive tool. The article discusses formal-analytic models of the recent past and analyzes how companies set off against-nung prices and organizational structures for different forms of competition and allowable transfer pricing methods optimally precise and more if there are incentives to 'active' transfer pricing policy. In addition, it is examined whether and how company change their behavior when an opening allowable transfer price reductions consider possible sanctions by the tax authorities by themselves.

Keywords: Arm's length principle, tax regulation, multinational corporations, strategic competition, transfer pricing, centralized and decentralized organizational, managerial accounting, incentives

1.0 Introduction

Since transfer prices are a key instrument of control of the company, they were in the past decades, always a focus of theoretical research. The basic-applied analysis of Schmalenbach (1908/09) and Hirshleifer (1956) have been successively extended play tert regarding organizational issues, in particular the allocation of decision-making and property rights, consideration of investments in product qualities and capacities, the inclusion of different risk settings decision-makers, time and Information structure, market and competition forms and in particular the Steuergesetzge-environment.

Neglecting multinational enterprise activity already exists wealth economic problems. Pfaff/Pfeiffer (2004) provide a comprehensive overview of three-central directions: Working in the tradition of neoclassical economics, agency-theory contributions as well as models based on transaction costs and incomplete Verträgen. 2

The topics discussed in these approaches, economic aspects are supplemented by additional effects and overlays, if you extend the focus on the design of transfer pricing systems and organization structures in an international context. Companies now have strong incentives using transfer pricing to shift profits “tax havens”. In addition, under-different legal frameworks, additional actors (Finanzveraltungen, legislators), and the present between these conflicting goals and information asymmetries should be taken into-term. The following article discusses key findings formal analytical analyzes. Main aspect is the question of how companies use when selecting the transfer pricing and the organization in the face of various forms of competition Gestaltung opportunities and behavioral changes that arise if the tax authorities sanctioned an illegal transfer pricing policy with penalties.

Construction of contribution: Section 2 discusses aspects that have significant influence on the analysis of transfer pricing and organizational structures in an international context. The focus is on the transfer pricing and forms of organization with the goal of coordination and control of behavior (Managerial Accounting). In Sections 3 and 4 monopolies or duopoly issues of organization and Verbill rates are discussed in detail under different conditions for the competition forms. Section 5 illuminates the perspective of the financial administrations shape the basic. Section 6 summarizes key findings and a brief outlook.

2.0 Essential aspects of cross-border business activities

While some aspects of the entrepreneurial competition represent steady conditions, they can be endogenously as de-makers with the inclusion of tax authorities.

a) Legal Framework - level of rates

Different tax rates are the main reason for an "active" set off against voltage-price policy of the company, as they have the incentive to profit by means of offset against-voltage praise expel as possible in "tax havens".

- Double taxation agreement and regulatory measures

Basically repatriarisierte gains from further taxation fully-accepted or has already taken place taxation abroad, we domestically angerechnet. 3 In particular, in the first case - which is assumed in this work - companies have an on-irritant, discretions for the election transfer pricing to minimize the Gesamtsteuer-erlast to use. To prevent excessive transfer of profits and tax disputes between tax administrations is generally required that the transfer prices have to satisfy the so-called arm's length principle. This means that connected sub-accept international transfer pricing have to choose, as if a trade between unverbun - which company was suffered. Where they exist, are transfer prices should therefore base on the market price of an intermediate product. Tax motivated

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companies have incentives to violate this principle. Although Art. 9 of the OECD Model Tax Convention provides that should make an appropriate income tax adjustment in this case both countries, most double taxation agreements are available only for the disadvantaged financial management the right to enforce its rightful income tax shares, without the other country corresponding tax benefits for the company performs. In fact, results from this sanctioning the company through double taxation, which may still be subject to additional Sanctions measures. It may be worthwhile for the company, despite Moeglicher sanctions to break the arm’s length principle.

- Other conditions: control types, trade restrictions, tariffs

In a separate analysis should therefore be dispensed with in the scope of this paper.

- Transfer pricing methods

Transfer prices are multinational companies to make a pro rata Gewinnzuord-tion of the company’s profits in various tax jurisdictions in the operating-union practice a variety of methods that can be determined with the aid of transfer pricing and legitimized as against third parties exist: 4 price comparison method [Comparable Uncontrolled price method (CUP)], cost-plus method [Cost Plus Method], funktionsorien-oriented profit decomposition [profit split method (PSM)] net margin method [Transaction Net Margin Method (TNMM)], Comparative Study [Comparable Profit Method (CPM)] and the global for-profit association melhafte [unitary taxation (UT) or formula apportionment (FA)]. Here, the first-mentioned methods define a direct or indirect transfer pricing, which is used for apportionment between countries (transaction based methods). In contrast, the two-letzte methods mentioned have no direct reference transaction. Proponents of Formulary apportionment argue that the company has no incentives to "active" settlement price policy gebe.5 This is verified in our analysis.

b) Market structure and strategic interaction

Degree to which companies have market power and what are their primary decision variables? Typically, a distinction is made between competitors on a perfect market (price takers), monopolists and oligopolists that interact with each other either in price or quantity competition.

c) Centralized or decentralized organization

Which property rights are held by the headquarters and be perceived by the public who-to and which are to decentralized critical business areas abgetreten.6 The sense-full organization is strongly dependent on the form of competition, the extent of potential environmental uncertainties concerning. Cost and revenue parameters and the question of who information about their Implementation receives. For the case of decentralized organization and oligopolistic competition may come next tax also a competitive strategic importance of transfer pricing.

d) "One set or two sets of books"?

If tax scheduled transfer prices zoom-drawn also to the internal management or to a separate transfer pricing system for behavior control are ge-cares? The latter opens degrees of freedom in the control of distributed enterprises, as they can be specifically geared to the present in the company offs and information asymmetries. On the other hand, causes the separation of fiscal and anreizorientierten transfer pricing documentation increased costs and sometimes leads to Mainstream acceptance problems in the Mitarbeitern.7

e) Decision makers and objectives

For companies can legal framework adopted unchangeable who-den.8 Overlooking the maximization of the company’s profits after tax are the choice of organizational form and the unit prices for the Central significant control variables. In a central organization she meets trading and investment decisions them, whereas it merely defines the internal environment in a decentralized organization, under which then make the divisions trading and investment decisions. By designing compensation systems which also affects the central objectives of the areas. This area often serves as performance gains size. When using a uniform transfer pricing system ("one set of books") is hereby 1) the pre-tax gain or 2) the post-tax profit in question, thus both also take into account the offset against the tax-settlement price. Does the company use separate incentive-based offset against-opening prices for internal control come and 3) the behavioral pilot Gewinn9 or 4) the behavioral pre-tax profit minus the actual tax payment in the country as target variables in question. While the former takes into consideration only incentive based transfer pricing, internal and external settlement price influence in the latter case the behavior of the area.

If one extends the consideration of decision-makers at the level of tax authorities and national and international legislators, the following outcomes are possible: 1) tax revenues, 2) national welfare and outcomes (tax revenues, corporate profits, Kon-sumentennutzen, jobs, investments) and 3) global welfare. Entscheidungsvariable variables to achieve these goals are especially tax types and level of rates, down to-permeable transfer pricing methods and measures to enforce legal Vorschrif-throw (documentation requirements, control measures and penalties where appropriate).

The OECD Guidelines want to shift the goal of neutrality by calling in the arm’s-length principle. However, the individual states' interests are often this goal entge-gen.11 Wellisch (2003) and other contributions therefore discuss this critical and make the decision criterion of neutrality in the Mittelpunkt.12 This requires that the decision behavior of an undertaking in the presence of taxes and application admissible should be Verrechnungspreisme-methods unchanged compared to a situation without taxes and tax rate differences. Basis for the analysis of monopoly and duopoly scenario Below, we
examine how companies use design options in the choice of transfer pricing and organization in the face of various forms of competition. The two in the recent formal analytical literature intensively discussed methods are analyzed in detail: comparable uncontrolled price method (CUPM) and global formulaic profit allocation (UT or FA). For the comparable uncontrolled price method, it is assumed that - where they exist - either the market price of the intermediate product must be dialed immediately as transfer pricing, or by the tax authorities, a corridor $tu < t < to$ allowable transfer pricing is set. Of Supply transfer prices within the interval of the arm's length principle (arm's-length basis-set) will be fulfilled angesehen.\textsuperscript{13} Contrast to the global formula based profit allocation (UT / FA), it is assumed that the tax authorities took part in reaching understanding on a profit sharing conditions, for example, is calculated as: taxable income in country 1 = Income before taxes $\cdot [\alpha \cdot (Revenue\ Country\ 1 / world\ sales) + \beta \cdot (invested\ capital\ in\ Country\ 1 / investments\ worldwide-directed\ capital)]$, with $\alpha, \beta \varepsilon [0,1]$.

For simplicity, it is assumed that no single Import duties exist and international goods arbitrage is not advantageous. Unless otherwise indicated-accepted, it is assumed that the companies legal guidelines for selecting the settlement prices einhalten.\textsuperscript{14}

### 3.0 Transfer pricing and organizational structures in the monopoly

Consider a multinational company whose area 1 (Region 1) created a product that can be sold on the domestic market or delivered to area 2, the ab puts it in country 2. The quantities are denoted by $x_i$, where for area 1 marginal cost $c$ per unit anfallen.\textsuperscript{15}

The internal power exchange is valued at the settlement price $t$, which is determined by the control panel. $R_i(x_i)$ denotes the revenue in country i for which applies $R_i^t(x_i) < 0$? The profits of the two divisions are subject to taxation, $s$ or $S$ of the respective Country in question. After taxes are the area gains $G_i$ and corporate profits $G$:

$$G = (1 - s) \cdot [R(x+ \cdot t \cdot c(x+x))], \quad G = (1 - S) \cdot [R(x - \cdot t \cdot x)] \text{ and } G = G + G.$$

### 3.1 Identical rates ($s = S$)

Substituting identical tax rates in the profit function of a company, it is clear that the height of the transfer price has no effect on the level of company profits. For centrally controlled company headquarters chooses the volumes $x_1$ and $x_2$ such that for both markets, the criterion marginal revenue = marginal cost met. Used in a decentralized organized-company transfer pricing $t$ only as a steering rate for the areas that makes independent decisions on sales volumes.

Therefore, the central anticipated the decision calculus of area 2, $R_2^t(x_2) = t$. By properly setting the clearing price at marginal cost, the Central induces efficient sales volume.

### 3.2 Different tax rates ($s \neq S$)

#### 3.2.1 Central Organization

**a) Comparable uncontrolled price method (Comparable Uncontrolled Price Method)**

If there are different tax rates of transfer pricing $t$ the company's profit after tax affected. Depending on the permissible tax transfer pricing and the ruling between countries tax difference now arise always corner solutions, since $\partial G / \partial t = (Ss) \cdot x_2$. Here below: $t = t$, if $s < S$ and $t = tu$, if $s > p$.\textsuperscript{17} This tax-motivated transfer pricing choice also influences the choice of the volume sold, as the first-order condition shows:

$$G \partial / \partial x_2 = (1 - S) \cdot R_2^t(x_2) + (S - s) \cdot t (1 - s) \cdot c = 0 \text{th for } s < S,$$

the monopolist chooses a price above marginal cost transfer price. In order to do justice to the country 2 (after-tax) the revenue marginal revenue = marginal cost, the monopolist makes an adjustment to the sales volume, which thus deviates from the optimum sales volume for identical tax rates. Just in case that the marginal cost $c$ correspond precisely to the upper limit of the allowable interval occurs no distortion of trade and sales volumes for $s < S$.

**b) Formulary apportionment / Formula Apportionment**

For a simple illustration of the operation, it is assumed that each of the taxable profit according to the relative share of sales of the regions shows that $s = R_1(x_1)$ and $S = R_2(x_2)$ and $\beta = 0$th the company's profit after tax is thus obtained as:

$$G = (1 - (1 - S) - \alpha = 1 - [(1 - s - \alpha + (1 - S) - \alpha(1))][R+(1 - (x_1) R- 2 \cdot x_2)] + c(x_1 x_2)). \text{ If the s-}\alpha \cdot + G) G$$

Companies Select permissible values of the distribution parameter within an interval $a u < a < a o$ Can give legitimacy to the tax authorities, there is yet a corner solution, depending on the tax rate differential. Because of $\partial G / \partial a = (Ss) \cdot [R_1(x_1) + R_2(x_2)] - c \cdot (x_1 + x_2)$ follows $a = ao$ for $s < S$ and $\alpha = au$ for $s > p$. Obviously, the maximization of the profit leads to the maximization of the company's profit after tax. This result, however, only applies as long as the company does not affect the limits of the permissible interval by its activities kann.\textsuperscript{18} If the tax authorities can verify the exact sales rates and claim its application, the interval degenerates into actual sales ratio $\alpha$, which then also the just requirement for independence is violated.

### 3.2.2 Decentralized organization

While the question of a separate transfer pricing system for behavior control does not provide for centralized organization consists of decoupling with decentralized organization the opportunity to internal corporate control of the external (at least partially). In the-case, the
company maintains addition to the transfer pricing tSteuer a second settlement price system ("Two sets of books").

Behavioral offset against-nung prices are with tAnreiz hereinafter referred to exclusively as part of internal control is used com-men. If only a transfer pricing system is maintained for internal and external reporting purposes, the transfer prices are still designated t ("One set of books").

**a) Comparable uncontrolled price method (Comparable Uncontrolled Price Method)**

If the center uses only a transfer pricing system ("one set of books"), the transfer price is now t "Servant of Two Masters": the tax minimization and incentive schemes. The limits of the allowed interval would be fiscally motivated the headquarters again like to draw off. The precludes the goal of setting the transfer price at marginal cost in order to set appropriate incentives for trade area 2. Due to the coupling of the settlement price at the market price (t = p1 = market price in Country 1) it follows that now two-management decisions of the areas are not independent of each other. For a higher sales price in country 1 is uno actu associated with the increase in the transfer price and therefore a distortion of the sales volume by area 2, for which the internal procurement costs steigen.

The center now weighs monopoly profits in country 1 to country 2 and monopoly losses in the ceteris paribus incoming tax gains from a higher unit price for each intra-operatively-lich-traded unit against each other. From these three aspects follows: If the monopolpreis, P1m is smaller for the intermediate product in country 1 than the upper limit of the allowable interval P1m <t, is also the optimal transfer price to below. In addition, can be linear price-demand functions show that the incentive problem, the tax cut motive do-nated ie that the monopoly price is already P1m the upper limit of the optimal settlement price t. This is calculated as a weighted average between marginal cost c of the production and the monopoly price P1m in country 1, wherein the weighting by the different tax rates determined wird.\(^2^0\) Just in case that the monopoly price in Country 1 exceeds the upper limit of the allowable transfer pricing, P1m> to be, for sufficiently large differences in tax rates of Ver-bill rate t = to set.

Be separate transfer pricing systems used for internal and external reporting purposes ("Two sets of books"), the divisions can channeled through the incentive-based pre-tax profit minus the actual tax payment worden.\(^2^1\) Compared to a single transfer price system thus becoming the central one degree of freedom in controlling the company. Assuming that there is always scarce capacity, i.e. always exists-full capacity, it can be shown that the company's profit increases when the internal transfer pricing Anreiz compared to the market price p1 is provided in Country 1 at a discount \(\Delta\): tAnreiz = p1-\(\Delta\).\(^2^2\) For determining taxable income on the other hand - according to a strict Implementation of the comparable uncontrolled price method - the transfer price tSteuer = p1 recognized.

The reason for this is as follows: With a full load leads a tax rate difference, s <S, an increase in the internal supply in the high-tax country compared to a scenario with identical tax rates. This was due to two effects. The Umalsolzieung of production capacity is associated with a lower production and sales volume in 1 country opposed to an independent optimization increases there so the sales price, which is also the relevant tax transfer price. For the calculation of the tax payments of the settlement price will be determined for all the products internally supplied.

The resulting tax-saving effect is first order, whereas the Gewinnreduziation associated with the amount of reduction is a second order effect in pre-tax country 1. Is paid for this tax-saving Effect by recall bias in both countries. Uses the center now also possible to decouple the internal transfer price from the external and lower transfer price to set, so they can destroy alleviate the problem of distortion amount without the tax benefits.

Baldenius / Reichelstein (2003) show that the assumed for the above result Vollauslas-tung premise is driving for the result. In a scenario without taxation guide them in capacity is tight for a forth sufficient conditions under which through internal price reductions effective selling prices and trading volumes can be induced. Second, they show that unlimited capacity internal price reductions are not able to induce efficient trading volumes and only under specific conditions (eg linear price-demand functions) lead to an increase in corporate profits. This Negative-result memorized even if the tax rate differences.

**b) Formulary apportionment/ Formula Apportionment**

As described above, this method aims to transfer pricing independent possible determination of taxable profits. Transfer prices have only - if at all -indirect influence on the distribution of profits, since they can be used to affect the figures included in the revenue distribution formula.

However, all figures are not necessarily of the divisions affected werden.\(^2^3\) A for this purpose ausgestaltetes transfer pricing system is thus strongly behavior oriented. In as much as the strict application of benefit-sharing formula without discretion and all the key figures of the divisions are influenced, the boundaries between "one set of books" and "Two sets of books" are blurred here. On the other hand, not all metrics impressive-flussbar or the company can choose the tax profit shares within certain limits free, so are generally differences between fiscal transfer pricing and steering Price vor.\(^2^4\) As with centrally controlled companies, the independence of the limits on the profit attributable condition that - but only in special cases - can be made non-tugging lot of decisions. If the interval is, however, degenerated into a strict application of the formula, this condition is violated here regularly.

**3.2.3 Choice of organizational form**
If all environmental parameters are considered deterministic, the company incurred considered above scenario not benefit from decentralization of decisions: Decentralization dominates centralization (weak). Since no competition strategy Effects or imperfections in information processing are present; the control panel can implement any decentralized solution also central. For \( s < S \) obtained in the decentralized scenario by the tax-driven choice of transfer pricing, \( t = t_0 \), a distortion of the heel volume and thus a lower profit than with central control.

This uniqueness result changes when one takes into account uncertainty about cost and revenue parameters. Narayanan / Smith (2000) analyze the relative advantage of the organizational forms with constant marginal costs and linear Inverse demand function, where they model the marginal cost and the constant term of the demand function as random variables. While the actual marginal costs are generally observable, the expression of the demand parameter is observable only for the areas, but not in the center. Narayanan / Smith (2000) provide a lower limit Moegli-cher transfer pricing, the actual marginal costs, \( t_u = c \), and show that for \( s > S \) decentralized solution is dominant, whereas provide a framework for a limit for the variance of the demand parameter for \( s < S \). If the actual variance is greater than the threshold, decentralization is advantageous, otherwise centralization. Because for \( s > S \), the transfer price is \( t = t_u = c \) set.

Thus, it is caused by the transfer price no distortion of trade amount. The advantages of decentralization results from the fact that the divisions can take into account the Information on the demand parameters in the choice of sales volume, whereas the center could only decide on the basis of expectations.

For \( s < S \), the transfer price is set equal to the upper limit of the allowed interval and always leads to a lot of distortion. At high environmental uncertainty, this drawback of decentralized organizations ion is oversize compensated by the benefits of information regarding evaluation of the demand parameter. At low environmental uncertainty, however, this information advantage is less important, which is why the central organization is preferable. Solving the adoption \( t_u = c \), so is particularly suitable for \( s > S \) find a trade-off.

3.2.4 Perforation and enforcement of regulations

Kant (1988) examined the effects of a possible sanction of the financial services network -management if they can impose a penalty the company at uncovering an illegal break the arm's length principle. He receives the intuitive result that a higher penalty envisaged, the company also prompted to choose his transfer price less different from the arm's length price. It is also clear that, despite the threat of criminal openings of the arm's-length principle take place, which the company tax minimization and avoidance Criminal weigh against each other.

3.2.5 Inclusion of ex-ante investment

An interesting extension of the above scenarios discussed Smith (2002a), who investigated the effects arise if the company can make ex ante investment in reducing unit costs or increase in sales revenue. He shows that the company has more higher incentives to invest, the greater its discretion in the choice of transfer pricing, ie in the ex-post held tax minimization. Here, a reduction of the transfer pricing regulation may both to higher corporate profits and higher tax revenues.

4.0 Transfer pricing and organizational structures in oligopoly

In the subsequent two companies are considered, which in Country 1 create one product with constant marginal cost \( c \), which is sold on the domestic market and is delivered to offset against it-settlement price in the sales area in country 2. While for country 1 perfect competition is assumed (i.e., the arm's length price realized at the level of marginal costs \( c \), the companies are in Region 2 in dyopolistischen competition. The two paragraph products of the companies in the country 2 are substitutes, so that for the competitors in each relevant demand \( x_i \) can be a function of the prices \( p_{12} \) and \( p_{22} \) represented as follows:

\[
\begin{align*}
\Pi_{12} &= a \cdot y_{1} \cdot p_{12} + y_{1} \cdot p_{22} \quad \text{with} \quad y_{1} > y_{2} > 0 \\
\Pi_{22} &= a \cdot y_{2} \cdot p_{12} + y_{2} \cdot p_{22} \quad \text{with} \quad y_{2} > y_{1} > 0
\end{align*}
\]

For \( s < S \), the transfer price is \( t = t_u = c \) set. In his analysis he makes a special form of modeling the comparable uncontrolled price method (CUP) by could divide the negotiating profit, independent companies from investing activities as between the divisions shared among "added value" investing activities modeled. See, Smith (2002a), p. 173ff. He also analyzes the Comparable Profit Method (CPM). Similar modeling of CUP and CPM are also found in Halperin / Srinidhi (1987,1991, 1996) and Sansing (1999).

\( \Pi \) be with IGP

Country scored 1, so

\[
\Pi_{I1} = (1 - s) \Pi (+\text{IGP} \cdot \text{the profits referred to the company i on the intermediate market are the area } \Pi_{I1} \text{ gains and corporate profits } \Pi \text{ as follows:})
\]

\[
(\Pi_{-ic}) \Pi_{I2}, \Pi_{I2} = (1 - S) ((p_{i} - t_{i}) 2) x_{i2}) \text{ and } \Pi_{I1} = (1 - \Pi_{IL}) + I_{I1} (1 - \Pi_{IL}) I_{2}.
\]

4.1 Identical rates \((s = S)\)

In contrast to the monopoly scenario in which the organization of the company on the market power does not matter in terms, it is now crucial. As companies are in competition with each other dyopolistischen, consist of the pricing and quantity decisions interactions that take account of both centers within the Entscheidungsfin-making. Price and quantity decisions must now form Nash equilibria. If the company is decentralized, the sales areas make their decisions based on price or quantity of transfer pricing and not - as the center - on the basis of marginal cost.

In mutual observability of transfer pricing these can now be used as a strategic variable to avoid competitive disadvantages compared to the competitors or even to
obtain benefits. It is dominated with identical tax rates, the central of the decentralized corporate management.  

This causes both competitors prefer a decentralized control. Since price competition (quantity competition) the prices of the Kon-competitors strategic complements (substitutes), put the central one lying above (below-half) of the marginal cost c transfer pricing (strategic competitive effect).

4.2 Different tax rates (s ≠ S)

For the following statements is first considered and placed under decentralized companies that the market price on the intermediate market, p1 = c, is attracted by the price-comparison method as a measure of transfer pricing.

a) Comparable uncontrolled price method (Comparable Uncontrolled Price Method)

Even with dyopolistisch competition between companies with uniform accounting ("One set of books ") causes a difference in tax rates, ceteris paribus, that companies have an incentive to use transfer pricing to be shown gains in " tax haven ". On the other hand, have transfer pricing now a strategic impact that reinforce the Control Mini mierungseffekt or oppose this and possibly can dominate. Then for s <S at low differential tax rates that in quantity competition (price competition) a Ver-bill rate is chosen the marginal cost below (above) where the tax minimization, a high transfer price to choose wäre. The same is true for s > p. Thus, this method gives incentives to "active" transfer pricing policy.

Be separate transfer pricing systems used ("Two sets of books"), it is clear even-if the incentive to break the arm’s length principle. Assuming that the areas of the incentive-based tax profit minus the actual tax payment maxi-mize, this leads ceteris paribus means that the company’s tax settlement price - want to start as high or as low as possible - depending on the ratio of tax rates.

b) Formulary apportionment/ Formula Apportionment

Whether this method has influence on the transfer pricing policy of a company depends on the extent to which transfer pricing besitzten a direct or indirect influence on the identification numbers that go into the formula for benefit sharing. If we assume a uniform transfer pricing system ("one set of books") and you attack the already discussed in the monopoly scenario measure the amount of goods on, it is obvious in view of the above discussion that a locally controlled companies on the choice of transfer pricing, the sales in the individual countries can control. Nielsen / Raimondos-Moller / Schjelderup (2004) illustrate this with an amount of contest: For s <S, the company has the incentive to reduce sales in country 2, so as to reduce the average taxation of the company. The tax reduction thus motivated a price above marginal cost transfer price.

In contrast, the strategic competitive effect induces a lower-than-marginal cost transfer pricing for quantity competition. The optimal transfer price is now dependent on the relative strength of these two effects. For s > S, however, both effects are aimed in the same direction. Thus, the tax saving effect reinforces the strategic competitive effect and leads to a significant-llich lower than the marginal cost transfer price. Similar effects can be found in price competition. In addition, a method of apportionment based on sales ratios leads in here Even more "active" example discussed on a transfer pricing policy of the company as the Preisvergleichsmethode. In contrast, there is no incentive for an "active" transfer pricing policy reflects the analysis of Hyde / Choe (2004) found that the use of separate transfer pricing systems ("two sets of books") is present. They assume that the profit attributable to equity shares are attributed to countries according to the relative volumes, the target of the company's divisions is: area = profit incentive-based tax profit minus the actual tax payment. In the area of incentive-based pre-tax gain offset against the internal-settlement price tAnreiz flows.

Since the profit attributable to equity allocation follows the countries on the basis of sales volumes, which are also part of the incentive-based range profit before tax that area no tax transfer pricing tSteuer considered in the choice of sales volume. The off-design of the proportionate profit allocation thus establishes a separation of the effects.

4.3 Choice of organizational form

The presence of strategic competitive effects that result in identical tax rates to the strict dominance of a decentralized organization, and the fact that most models assume dyopolistisch competition with this form of organization, suggest a general Vorziehenswürdigkeit. Narajanan / Smith (2000) show, however, that this does not apply at below-ent taxation. The reason for this is the double functi decentralized control the transfer price, if only a transfer pricing system is performed. For a tax motivated transfer pricing change results in amount of distortion than with cent controller is superior.

4.4. Perforation and enforcement of regulations

The following should be analyzed in turn, how firms behave when a can by arm’s-length principle may lead to a possible sanction.

4.4.1 "One set of books" 30

Based on the above baseline scenario, it is assumed that both decentralized sub controlled by a single transfer price system. However, the tax authorities sanction the transfer price reduction of the company, if you are an out of her View detects adverse deviation of the transfer price from arm's length price c.

For Region 1 (2), this falls below (timeout) is given the marginal cost. The arm's length principle injury to lead to a sanction in the form of a recapture, where .phi..Sub1...
the probability sanctioned a departure. The expect $\Pi = (1 \cdot s) \Pi (S + Z P - (t - c) \times) \text{Profit after tax country 1}$

$\phi_{1,2}$

$+ (1 - S) (p - t) \times \text{profit after tax Country 2}$

$\phi_{2} \cdot s \cdot \max (0, c - t) \times \text{where appropriate penalty in Country 1}$

$\phi_{1,2}, \text{where appropriate penalty in Country 2}$

In the absence of controls by the tax authorities ($\phi_{1,2} = 0$) is determined to set off against voltage-price policy of the company so only b competitive effect. Figure 1a illustrates the choice of settlement prices. Of particular interest is the range B2. Here, the strategic effect dominates the design of tax minimization. In contrast, in the fields B1 and C are aimed both effects in the same direction and lead to transfer pricing below marginal cost, while in region A dominates the motive of tax avoidance and leads to high transfer prices. Along the border between domain A and B2, a transfer price length price c is set.

Figures 1a and 1b: Transfer pricing in Steuerminimierungs- and strategic competitive effect (left) as well as to avoid criminal sätzlichem - effect (right)

Positive control probabilities $\phi_{i} > 0$ then lead to the fact that the company must also include an expected penalty in the form of double taxation in their calculations. Figure 1b illustrates the consequences of now has to be considered criminal prevention effect on the choice of transfer pricing.

In the regions A and C, the high difference in tax rates to the dominance of the Control Mini mierungseffekts, with supply in region C, this effect through the strategic competitive effect is reinforced. This effect is also crucial that region B in turn Area.

Includes, in which the strategic effect dominates the tax effect (this is the case for tax combinations above the bisector). On the possible sanction of the financial management in opening the arm's length principle, the company now responds by setting D1 and D2 transfer prices equal to the arm's length price in the fields. The aspect of criminal avoid this dominates the other two effects and edge solution: $t_i = c^*$ is realized.

This area is D1 (D2 region) by the threat of punishment from country 1 (Region 2) motivated. With increasing control probabilities, i.e., with an increase in the expected penalty, the regions D1 and D2 stretch for "southeast" and "Northwest" from.

What is interesting is that the increase in the complication probability, ie the expected punishment in Country 1 to higher corporate profits and higher tax revenues at the same time in both countries-County leads.

Because by the penalties in the amount of competition between the companies is performed less aggressive and selling prices move in the direction of the monopoly price. Essential for this effect is the fact that both companies use a standardized set off against voltage-price system for internal and external control.

The expected penalties provide a credible self-commitment of the company to high transfer prices, making a sharp quantity competition is prevented. For Country 2, however, no such effect of stricter punishment is determined, as these cause a reduction of transfer prices and thus increased competition.

4.4.2 "Two sets of books"
5.2 Competition between tax authorities

The preceding analyzes have highlighted how diverse are the effects that result given the legal regulations for the control of central and local businesses. In the analysis of the "meta-game" of financial administrations themselves, these effects are taken into account, which of course a significant overhead of formal analysis brings with respect to the modeling of a company as a "key decision makers". However, a closer relationship between primary internal corporate control (Managerial Accounting / Economics) and the primary public finance allocated approaches should be sought in order to make informed statements in the current discussions about international tax harmonization and regulation betrieblicher billing rates.

The results discussed in this paper present the results of part playing the "meta-game" is that can be incorporated into a link of model approaches.

6.0 Summary and Prospects

The article examines how companies choose transfer pricing and organizational structures in different contexts. These differ in the contest form in the markets, the tax differences between countries, methods for Festlegung tax transfer pricing, and possible sanctions if a non-tax allowable transfer pricing choice is revealed by the tax authorities. It turns out that - apart from a few special cases - different tax rates generally leads to a tax-motivated transfer pricing Setting and a distortion of allocations. In the choice of organizational form and transfer pricing in particular the degree of environmental uncertainty and information asymmetry as well as the degree of utilization Kapa play a crucial role? Further research is needed also the role that government regulation for Unternehmensmense-profits, tax revenue and welfare aspects of how we effect of risk aversion of the decision makers in connection with different offset against-ment price policies and regards the inclusion of capacity and Qualitätsinvestitiioin the Analysen play, is in need of clarification.

For more restrictive of discretion for tax transfer pricing work at Einbe-relationship of quality investment (. Smith (2002a)) and oligopolistic price competition rather negative both on corporate profits and tax revenues, whereas in oli-gopolistischen amount of competition they also have positive effects on both targets can. In addition, a closer link between the primary internal Unternehmenssteue- tion (Managerial Accounting / Economics) and the primary public finance allocated approaches should be sought to explain the impact of transfer pricing methods and regulatory measures on capital investments.

References


