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Transfer Pricing and the Management Control System in the Tax Compliant Multinational Enterprise

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Abstract

To understand the design and use of management control systems (MCSs) in tax compliant multinational enterprises (MNE), an in-depth case study was undertaken. The selected MNE chose to use the same transfer prices for tax compliance and internal management purposes. We argue that modifications in the MCS cannot be understood without an appreciation of the corporate approach towards fiscal transfer pricing compliance. Over a sustained period of time, the effect on organising, planning, evaluation and reward controls are traced suggesting a more coercive use of the MCS. Three propositions are offered to guide future research in this complex area.

Key words: Transfer pricing, management control system design, multinational enterprises, tax compliance

Introduction

This study addresses the potential interaction between the design of the management control system (MCS) and tax compliant transfer pricing in the multinational enterprise (MNE). Transfer prices are instruments for integrating and differentiating the actions of parts of the organisation and to evaluate their individual performance. This MCS role of transfer pricing has mainly been investigated by the domestic management accounting and control literature (Watson & Baumler, 1975; Swieringa & Waterhouse, 1982; Eccles, 1983, 1985; Spicer, 1988; Van der Meer-Kooistra, 1994; Colbert & Spicer, 1995; Luft & Libby, 1997; Ghosh, 2000.). The study of cross-border transfer pricing in MNEs traditionally has a place in other streams of the literature: tax law studies discuss the variety in national tax regimes, tax compliance requirements, and the optimal transfer pricing method from a fiscal point of view (Kroppen & Eigelshoven, 1998; Levey, Brandman & Miesel, 2001; Swenson 2001; Van Mens & Porquet, 2001; Douvier, 2005; etc). Tax accounting studies investigate the degree to which national tax rate differentials lead to transfer pricing manipulation and income shifting (Harris, Kriebel & Raviv, 1982; Jensen, 1986; Halpirin & Srinidhi, 1987, 1991; Grubert & Mutti, 1989; Klassen, Lang & Wolfson, 1993; Harris, 1993; Jacob, 1996; Swenson, 2001; Gupta & Mills, 2002; etc.). An alternative perspective is provided by the contingency literature: it identifies the objectives of the transfer pricing policy and the organisational and environmental factors that determine the (international) transfer pricing method. The contingency literature mentions transfer pricing tax regulations as one of the environmental factors (Borkowski 1992a, 1992b, 1996; Emmanuel & Mehafdi, 1994; Cravens & Shearon, 1996; Cravens, 1997;.). However, there are no studies to our knowledge which examine transfer pricing in the MNE where tax compliance and MCS design is the focus of attention.

Our aim is to refine the contingency literature of MCS in the MNE by investigating whether and how the MCS role of transfer pricing is influenced by fiscal regulations. While the extant tax law and accounting literature focuses on tax optimisation, we study the issue of tax compliance and its interplay with the design and use of the MCS. Tax compliance has recently gained in importance due to the introduction of stricter transfer pricing tax laws by fiscal authorities worldwide. In contrast to a number of recent analytical studies calculating transfer prices that reconcile managerial and tax objectives under certain static circumstances (Halpirin & Srinidhi, 1991; Narayanan & Smith, 2000; Hyde, 2002; Baldenius,

Melumad & Reichelstein, 2004; Hyde & Choe, 2005), this is an empirical investigation which allows the researchers to view the 'process' of inter-action over time (Swieringa & Waterhouse, 1982; Spicer, 1988, Colbert & Spicer, 1995). In this context the following research question is studied: *When a MNE seeks to comply with international transfer pricing regulations, what is the impact, if any, on the enterprise's MCS?*

The tax environment

As the tax accounting studies indicate, the differential national tax regimes invite MNEs to engage in income shifting. Due to globalization, an increasing volume of trade remains outside of the scope of market forces: UNCTAD (2003) report that 60% of international trade takes place within MNEs. It is therefore not surprising that national governments worldwide install transfer pricing regulations. The OECD issued Transfer Pricing Guidelines in 1979, which were implemented in the legislation of a number of Western countries. By the end of the 1980s, however, transfer pricing became the centre of a political debate in the US. US politicians became interested in the potential tax effects of transfer pricing and targeted the transfer pricing policies by foreign MNEs (Hamaekers, 2001). The discussion resulted in revised and strengthened transfer pricing regulations (§482 of the Internal Revenue Service (IRS) regulations and related paragraphs) in 1994. To respond to these developments, the OECD Transfer Pricing Guidelines were reformulated in 1995. Since that time, an increasing number of countries have , and still are, preparing specific transfer pricing rules, mostly implementing the OECD Guidelines. Recent studies (e.g. Ernst & Young, 2003) provide overviews of changes in tax authorities' attitudes since the second half of the 1990s in over 44 countries (OECD and non-OECD, developed as well as developing countries). Not only have the rules become more explicit and detailed, but, at the same time, national tax authorities have increased their administrative resources and severe enforcement measures are in place in several jurisdictions. The threat of transfer pricing tax audits has become real for every MNE (Eden 1998). Penalties can apply not only to adjustments but also for inadequate or untimely documentation. This was recently highlighted when the IRS imposed a claim for additional taxes of US \$2.7 billion plus additional interest of US \$2.5bn on GlaxoSmithKline (The Economist, 2004; Wright, 2004).

The arm's length principle¹ provides an international yardstick to judge transfer prices from a tax perspective: transfer prices between interrelated parties are acceptable to the tax authorities if the MNE can prove that independent parties would have chosen similar prices in similar circumstances (article 9, OECD Model Tax Convention, 1995). Ideally, transfer prices should be based on market prices, but for various reasons a market-based transfer price might not exist: intra-group transactions of tangibles, intangibles and support services are often unique and specific to the MNE and would not be offered to the market (Eden, 1998). In practice, therefore, cost-based and negotiated transfer prices are used apart from market-based prices (Borkowski 1990, 1992). The 1979 OECD Transfer Pricing Guidelines prescribed three transfer pricing methods² that, depending on the circumstances and the characteristics of the transfer, provide a suitable application of the arm's length principle: the comparable uncontrolled price method (where a market price can be identified and applied), the cost-plus method (which augments the product or service cost with a mark-up comparable to that of an unrelated producer with similar activities) and the resale-minus method (which works backwards from an arm's length sales price to an unrelated party and deducts a mark-up comparable to that of an unrelated company undertaking similar activities). Due to difficulties with their practical implementation, these three 'traditional transactional methods' are now supplemented with two profit-based methods in the 1995 OECD Transfer Pricing Guidelines: the transactional net margin method – also known as the comparable profit method (which evaluates operating profit relative to an appropriate base like sales or assets, to make sure that the profit earned by the MNE's unit is comparable with that which an uncontrolled company will earn under similar circumstances) and the profit split method (which divides the total profit between the buyer and seller to reflect the profits that two unrelated parties earn when undertaking a similar transaction). Despite the dominance of the arm's length principle and the impact of the OECD Transfer Pricing Guidelines, MNE compliance with transfer pricing regulations is not generally seen as an easy task. The arm's length principle is so fluid that national tax authorities interpret and implement it in different ways, reflecting long-established domestic tax practices (Eden, Dacin & Wan, 2001; Picciotto, 1992; Ernst & Young, 2003). 'The consequential divergence in approach among tax administrations is a growing concern to MNEs – particularly as

¹ Since the arm's length principle forces MNEs to implement market prices or suitable comparables for their internal transactions - thereby ignoring the reasons for the internalisation of the transactions - the principle is challenged by academics (Eden, Dacin & Wan, 2001; Picciotto, 1992) and practitioners (Ernst & Young, 2003; Weiner, 2001).

² A 'fourth method' category allowed other methods to be used if justified (OECD, 1979).

countries with no prior formal transfer pricing rules or experience seek to introduce them' (Ernst & Young, 2003, 5).

Both the revised US Regulations and OECD Guidelines entail extensive documentation requirements, urging MNEs to explicitly justify that their transfer pricing policy does not violate fiscal rules and is based on sound business grounds³ (IRS, 1994; OECD, 1995). The more completely the documentation supports the MNE's transfer pricing decision, the more the tax authorities are inclined to accept the policy. A functional analysis forms a crucial part of the document to justify the transfer prices in use: it disentangles the functions undertaken, assets used and risks taken by the different parties involved in the intra-firm transaction. The IRS also requires 'comparables' to be provided: the arm's length character of an MNE's transfer prices needs to be sustained by positioning them amongst the prices and profit margins of comparable external transactions between unrelated parties. The pressure to comply with the documentation requirements is high. De facto, the burden of proof remains on the MNE, although only a limited number of countries like the UK have a self-assessment system in place. In addition, a firm's transfer pricing document becomes an important instrument when the MNE invokes bi-lateral tax treaty agreements between countries. When the tax authorities in one country judge that the MNE has not respected the arm's length principle, they are allowed to adjust the MNE's taxable basis (article 9, OECD Model Tax Convention, 1995). Unfortunately, the adjustment of a MNE's taxable basis in one jurisdiction does not always lead to a corresponding adjustment in the other jurisdiction. To resolve such conflicts and prevent double taxation governments enter into bi-lateral tax treaties. In the context of the EU, an Arbitration Model can also apply but again extensive documentation is required to defend the transfer pricing policy (EU Convention 90/436/EEC, 1990).

We report the events experienced by one MNE which chose to adopt tax compliant transfer pricing. One immediate, practical effect of this strategy was the use of the same set of books for MCS and tax purposes.

³ The term '*sound business practices*' refers to a criterion to judge the acts of an entrepreneur/taxpayer. If the decisions of the taxpayer are not based on business considerations, disregarding any personal considerations of the persons involved in the decision, they cannot be respected for tax purposes (OECD, 1995).

This appears to be an increasingly common practice (Baldeuius et al., 2004⁴; Ernst & Young, 2003). Consultants advise MNEs to work with one set of books as the best proof towards the tax authorities that transfer pricing is based on internal instead of purely tax-driven motives (Ernst & Young, 2003). Tax compliant transfer prices which are also used for internal management purposes may therefore become the norm in the near future. The consequences of this are investigated over the period 1993 – 2001 in one successful MNE. The data are partly historical, based on archival documents and recollections by managers, and partly longitudinal (with one researcher having been present in the company between 1999 and 2001). Evaluating the inter-relationship with the MCS is guided by Chow, Shields & Wu's (1999) framework. Strong support is found of the tax compliant transfer pricing policy influencing elements of the MCS which permeate the different levels of the organization. Analytic generalisation suggests tax compliance is an additional contingent variable when seeking to understand MCS design in MNEs. Our analysis leads to three propositions which provide potentially interesting avenues for future research and responds to the call for theoretical contributions to explain how transfer pricing processes within the MCS are actually managed (Spicer, 1988; Colbert & Spicer, 1995). This contrasts with studies which view tax issues as exogenous environmental factors and do not delve into the deeper internal consequences of transfer pricing in MNEs (Shearon & Cravens, 1996; Cravens, 1997). Given the paucity of evidence on the use of transfer pricing for management purposes in the MNE, the interviews and archival data provide a unique insight.

The social relevance of the study is of some significance. Tax authorities wish to prevent double taxation but also to stop tax evasion and manipulation. MNEs seek to comply with regulations but the consequences for internal decision-making, performance evaluation and managerial motivation are largely unknown. Extending the “arm’s length” principle to management control may result in misallocation of resources (Eden, 1998; Hamaekers, 2001).

The remainder of the paper is organised as follows. The review of the organisational behaviour and MCS literatures, leading to the theoretical framework of this study, is presented in the next section. The research method is explained, followed by a description of the research site. The analysis section presents in a time-ordered manner the changes in the tax environment and the firm-specific MCS variables. This is

⁴ Baldeuius et al. 2004 stress that most MNEs use the same set of books for tax and managerial purposes.

followed by a discussion of the findings and development of the propositions concerning the consequences of tax compliant transfer pricing and the design of the MCS. Finally, suggestions for future research are presented, together with the overall conclusions of this study.

Literature review

No universally accepted framework exists to study MCS issues of transfer pricing in an international context. This study is guided by the domestic MCS and organisational transfer pricing literatures and the fiscal regulatory environment in which MNEs operate. This research domain provides our framework of analysis as shown in figure 1.

Tax compliance

In a multinational environment, the transfer pricing policy contributes to a large variety of goals, including profit maximisation, cash flow, sales and marketing goals; minimizing taxes, duties and tariffs; and achieving socio-political goals related to financial restrictions, currency fluctuations and host country relations (Leitch & Barrett, 1992; Dunning, 1980). Several surveys have been undertaken in the contingency tradition with the aim to identify the transfer pricing method used and the prime objectives of the transfer pricing policy (e.g. Tang, 1979, 1990; Borkowski, 1992, 1996; Cravens & Shearon, 1996; Cravens, 1997 etc.). The analytical literature contains a number of interesting contributions focusing on the dual role of transfer pricing for tax optimisation versus management control. Most of these studies assume MNEs to use one set of transfer pricing books (Halpirin & Srinidhi, 1991; Elitzur & Mintz, 1996; Schjelderup & Sorgard, 1997; Sansing, 1999; Haufler & Schjelderup, 2000; Smith, 2002a): they derive the optimal transfer price for each intrafirm transaction that simultaneously serves tax and performance evaluation goals. In contrast, a limited number of recent studies (Baldenius et al., 2004; Smith, 2002b; Hyde & Choe, 2005) model two distinct transfer prices, one to serve evaluation purposes and the other one to serve tax purposes. In practice, most MNEs insist on using one set of prices, ‘both for simplicity and in order to avoid the possibility that multiple transfer prices become evidence of manipulation in any disputes with the tax authorities’ (Baldenius et al., 2004, 592; Ernst & Young, 2001, 2003). Therefore, this study considers a MNE using a single set of transfer prices. SThis study provides insights from an in-depth case study of the MCS over time in a MNE that complies with the fiscal regulations. While the analytical

However, they advocate the use of separate sets of books.

studies tend to take compliance with the tax rules as given when seeking to identify the optimal internal transfer price (e.g. Baldenius et al., 2004), the current study internalises the tax compliance process and investigates the MCS implications that follow from preparing the firm for tax compliance.

Treating tax compliance as an endogenous variable admits the regulations and their premises into the MNE's consideration of MCS design. Eden (1998) offers a comprehensive analysis of the regulations and Cools and Emmanuel (forthcoming) argue that the most detailed rules of tax jurisdictions will be followed because bi-lateral tax treaties, arbitration and advanced pricing agreements (APAs) cannot progress until these are satisfied. Currently, the IRS holds the distinction of articulating regulations in fine detail (IRS, s 482,1995).

For normal tax compliance purposes, consistent with US regulations, contemporaneous documentation for individual or a set of similar transactions is required. The documentation includes a functional analysis where the parties to the transaction are identified, the assets including intangibles are recognised and the risks borne by each party are ascertained. The choice of transfer pricing method has to be justified over other methods and this necessitates the search for comparables. Up-holding comparables requires an industry sector analysis, preferably in relation to the strategy being followed, in order to verify the "best method" of transfer pricing is selected. Limited research and anecdotal evidence to ensure compliance with this level of detail reveals manuals several centimetres thick (Elliott and Emmanuel, 2000) and CD Rom submissions which model transfer pricing computations and assumptions. When corroboration of evidence is required from specialists, this is a costly and time-consuming undertaking especially as annual maintenance and up-dating of the documentation is needed.

Jurisdictions, other than the IRS, are also developing and strengthening their distinct transfer pricing regulations within the broad guidelines of the OECD (1995) which add to the dynamics of fiscal compliance. How the MNE accommodates this in practice and how the use and design of the MCS is affected is the focus of this study.

The Transfer Pricing Process

Whilst the influence of Lawrence and Lorsch (1967) is seen in the frameworks of transfer pricing choice developed by Eccles (1985), Spicer (1988) and van Meer-Koistra (1994), these are static and offer little on the internal organisation and management of complex enterprises, certainly not in an international environment. In addition, there is no universally accepted theory of management control for MNEs.

We have chosen to adopt the framework of Chow et al (1999) because the major management control functions are incorporated in an integrated manner. The underlying assumption of this framework, in common with others (Merchant, 1989; Birnberg et al, 1990; Fisher,1995), is that top management has complete discretion to determine and fine-tune the organising, planning, evaluation and reward aspects of the MCS. We examine whether this assumption is tenable when tax compliant transfer pricing is adopted as strategic policy of the MNE.

Organising controls pays attention to ‘decentralisation’ and ‘structuring of activities’. Decentralisation is the extent to which decision-making responsibility is delegated to lower level managers in a vertical hierarchy. Structuring of activities refers to the existence of written policies, rules, standardised procedures and manuals which specify how to and, sometimes, how not to, perform activities (Rockness & Shields, 1984; Merchant, 1985). The second aspect contains the planning controls which are defined as ‘participative budgeting’ and ‘standard tightness’. Participative budgeting is the extent to which subordinates contribute to the development and selection of the performance plan by which their superiors will hold them responsible (Shields & Young, 1993). Standard tightness stands for the ex-ante probability that a manager can attain the plan (Chow, 1983; Merchant & Manzoni, 1989). The third aspect, evaluating and rewarding controls, focuses on ‘participative performance evaluation’, ‘controllability filters’ and ‘performance contingent financial rewards’. Participative performance evaluation refers to the extent to which employees contribute to the evaluation of their own performance (Briers & Hirst, 1990). Controllability filters are the controls which reduce the degree to which manager performance evaluations are subject to factors beyond the manager’s control (Demski, 1976; Merchant, 1989). Lastly, performance contingent financial rewards refer to the extent that managerial compensation is determined by comparing budgeted to actual performance (Demski & Feltham, 1978; Waller & Chow, 1985).

The MCS literature has focused less on the use of the MCS than on MCS design. The application of Adler and Borys’ (1996) ‘enabling’ versus ‘coercive’ types of bureaucracy provides useful guidance to study use made of the MCS. Ahrens and Chapman(2002,2004) interpret coercive use of the MCS as extensive

centralisation and preplanning resulting in a top-down control approach. Enabling use makes it possible for managers to deal directly with the inevitable contingencies in their work. Its basic premise is that operations are not totally programmable. For an enabling use to be possible, the MCS needs to be designed in terms of repair, internal transparency, global transparency and flexibility (Adler & Borys, 1996; Ahrens & Chapman, 2002,2004). Internal transparency relates to the visibility of internal processes for organisational members, while global transparency relates to the visibility of the overall context in which organisational members perform their specific duties. The tight codification of best practice routines and the pressure to stick to the written manuals, however, countervail flexibility and repair. When repair processes are integrated with routine operations, managers participate in the development of organisational rules and standards by signalling and discussing problems in their practical implementation. Allowing managers to flexibly deal with emerging contingencies in ways that fit both local and central agendas is a necessary condition for an enabling use of the MCS to be possible (Ahrens & Chapman, 2004).

- Insert figure 1 here -

Research method

An in-depth case study was undertaken to gain insight into the design and use of the MCS in one tax compliant MNE. Theoretical sampling (Eisenhardt, 1989) guided the selection of the case company. The selection process consisted of two stages. In the first place, a preliminary study was undertaken to select a group of potential case companies. This stage at the same time allowed the research question to be refined, and the set-up of the research design and analysis protocol of the in-depth study to be strengthened⁵. One selection criterion was size. Earlier practical experience made clear that medium-sized and smaller MNEs had limited awareness and experience with the fiscal aspects of transfer pricing in 1998. This study therefore focuses on larger companies, often leaders from a market or technological point of view, characterised by a large number of cross-border transactions. Other criteria were industry sector, financial health, and apparent lack of problems with the tax authorities. International transfer pricing is a sensitive topic in certain sectors like pharmaceuticals which appear to receive especial attention. To ensure access

⁵ In addition, the preliminary study allowed the main researcher to refine her skills with interviewing managers on this topic and it provided the first material to be analysed using NUD*IST software. In this

stood a reasonable chance of being maintained, such sectors were avoided. Financially healthy MNEs, as reflected in company annual reports for the prior 10 years, were targeted. Also, access would only be possible to MNEs that felt comfortable enough about their transfer pricing policy to exchange information with an external researcher. In this way, the lack of problems with the tax authorities became a natural selection criterion. Four interesting companies were selected and key headquarter informants were interviewed.

The second stage consisted of selecting one 'best practice' company out of the four original MNEs. A mature company was preferred because its history in terms of international transfer pricing was the subject of the study. In order to include the most detailed transfer pricing rules in the World, we selected a company with headquarters or subsidiaries in the US. In addition, we targeted a typical case in the sense that the MNE used one set of transfer pricing books (Baldenius et al., 2005; Ernst & Young, 2003). The main focus was on the transfer pricing policy concerning products in order that the observations in this study might be related to the extant transfer pricing literature. Transfer pricing regulations also differ when the focus is intangibles or business support services (OECD, 1995, 1996, 1997).

Another criterion was the degree of access to management at different levels within the MNE.

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A series of semi-structured interviews were conducted for a total of 92,5 hours. As table 1 indicates, the interviews involved 23 managers at different levels in the organisation. All managers were interviewed between 1999 and 2002. A number of them (especially the tax directors, the product division controller and one of the strategic business unit, SBU, controllers) were contacted regularly during this four-year period. The interviewees commented on their actual situation and all of them spontaneously compared the present to the past.

way, coding in NUD*IST could be refined and improved before applying the coding scheme to the main

- Insert table 1 here -

“An emphasis on situational details unfolding over time allows qualitative research to describe processes” (Gephart, 2004, 455). To achieve the aim of deepening our understanding of the interaction between the transfer pricing policy and the MCS, an extensive search of archival documents was made. Table 2 provides an overview of the types of documents used.

-Insert table 2 here-

The documents and oral transcripts were cross-validated, in the sense that the observations based on the documents were compared with the observations provided by the interviewees, to provide data triangulation and to ensure construct validity (Yin, 2003; Miles and Huberman, 1998). As in Chow et al. (1999), the degree of triangulation was augmented by collecting information from different types of managers. Trends in the regulatory changes and the conclusions emerging from the case were also discussed with external transfer pricing consultants and tax specialists.

The design and analysis of the case study are guided by Yin (2003), Miles and Huberman (1998) and Eisenhardt (1989). The case study protocol includes the interview protocol, the analysis protocol and the selection criteria of the cases. The interview protocol guided the semi-structured interviews based on open-ended questions relating to the literature review. Participants could answer the questions or discard them as they perceived the importance of the issue. The analysis is centred on the use of event listings, also called time-ordered matrices. These matrices are intended to capture the dynamics and processes in the case (Miles and Huberman, 1998). They are used as the basis to verify the researchers’ interpretation of the events in several feedback interviews which occurred regularly during the data collection phase. The analysis is supported using the qualitative data analysis package NUD*IST. Complete interview transcripts are coded in the NUD*IST database, as well as document summaries (Miles & Huberman) with the main information obtained from the documents. Apart from using the software for its store and retrieve functions, NUD*IST is also used for further analysis by making use of the various questioning functions available. In this way, the time-ordered matrices could be drawn.

interview data.

Research site

This section describes the research site including the work flow within the Semi-conductor Product Division (SPD) and the tax compliant transfer pricing policy which was in place in 2001.

The Semiconductor Product Division

The selected MNE is a large, industrial multinational with production facilities and sales organisations , active in more than 60 countries, employing over 150.000 people. Within this MNE, SPD was selected as the main research site. Compared to the MNE's other product divisions, SPD is characterised by the most complex production chain and the most global operations. This product division belongs to the electronic system market, in which technology requires significant capital investments. SPD works in partnership with its customers to develop and provide standard products as well as complex system applications. The customers are increasingly global players. Figure 2 presents the value chain for semiconductors.

- Insert figure 2 here -

Semiconductors has production sites in the USA and in Europe and this first phase is the most capital intensive of the process. The separated circuits are assembled and tested often in cheap labour countries, mostly located in Asia. The semiconductors can be tested in the assembly plants or in a separate testing plant at a different location. The finished goods are sent to regional sales organisations which represent SPD in the different continents (North America, Europe and Asia). Regional marketing is based on strategic business unit (SBU) and business line (BL) dimensions. The SBU manages the physical distribution processes and the BLs are responsible for commercial inventories and related obsolescence risks. The regional sales organisations form the connection between the production and commercial environment. A national sales organisation is the contact point of SPD in the country of the customer. In contrast to the regional sales organisations, national sales organisations do not store or distribute stocks. A number of service providers located worldwide (such as the Corporate Centre, Technical Support Centres and Application Laboratories) take care of all activities that are not directly related to the goods flow.

The semiconductors-in-progress, physically travelling from one functional (operational or commercial) unit to the other which cross both organisational and fiscal borders, are monitored and steered by the BLs .

BLs with similar products are grouped as SBUs. SBUs formulate the product's worldwide strategy and allocate assets and resources in line with the targets agreed by product division management. They also communicate with key executives of strategic customers and suppliers. The BLs have to implement the SBU strategy in a particular product or market segment. While the BL general manager is located in one country, every BL is active on an international scale and use is made of SPD factories and departments all over the World. BLs undertake joint marketing initiatives with the sales organisations. The BLs also incorporate product knowledge and develop new products, often with support from the laboratories. The organisation is therefore similar to a matrix with the value chain identifying functions (production, assembly, testing and sales) and product availability and development (SBUs and BLs) recognising customers and markets.

Semiconductors' Transfer Pricing Policy

In 2001, SPD made use of three types of transfer prices. Since the number of production steps undertaken in a certain plant varies, a price is calculated for every separate step. The transfer price between functional units is the sum of the prices for all steps already undertaken. 'Production' prices are calculated for each stage in production: budgeted costs are augmented with uniform, fixed profit uplift. 'Assembly and test' prices include a uniform, fixed, but lower, profit mark-up applied on top of budgeted costs. The transfer price between an assembly and test facility and a regional sales organisation is the aggregate of the production and assembly costs plus profit marks-up. The transfer price between the national and regional sales organisations is the resale price minus a uniform, fixed profit margin. Resale price minus transfer prices apply a lower profit margin percentage. The three percentages reflected the functions undertaken, the assets involved and the risks assumed by the interacting parties. The product transfer prices are indicated in figure 3.

- Insert figure 3 here -

For all cost-plus transfer prices, budgeted costs are used to encourage efficiency at production and assembly. The corporate controller at SPD stressed that transfer prices based on actual costs would provide no incentive to the supplying division to control costs:

'using actual costs would allow the supplying divisions to pass along cost inefficiencies to the buying party' (August 1999).

In order to meet the tax authorities' requirement to use actual costs, an adjustment is made at the end of the year. Any adjustments need to be documented.

The tax compliant transfer pricing policy is used in two ways. On the one hand, transfer prices are used to invoice the subsequent functional entities along the value chain. At an aggregate level, they contribute to the results of the geographical sites which are of particular interest to the national tax authorities. Additionally, these transfer prices influence the results of the SBUs and BLs which are responsible for steering the semiconductors through the value chain. From the moment the products are sent from the product bank to an assembly and test facility, the production transfer price becomes a cost for the BL. Similarly, the BLs pay for the assembly and test activities, for the sales efforts and for the use of other services.

Analysis

The tax compliant transfer pricing policy of this MNE emerged over a number of years and, here, we trace the dynamic inter-actions with the MCS using the framework in figure 1. The evidence relates to the time period 1993-2001.

Strategy and Organisation Design

A study of transfer pricing policy cannot ignore the strategic focus of a company (Eccles, 1985). Two strategic phases can be distinguished at corporate level. In the period 1993 – 1998, the strategic aim was to recover the MNE's profitability. From 1998 on, the main focus was on shareholder value: creating value became the priority in any decision-making. In 1993, corporate management significantly simplified the product costing and budgeting system and insisted on its 'consistent application in all product divisions' (Semiconductors controllers meeting, November 1995). The aim was to increase employee understanding of the costing system so that cost reducing suggestions might emerge at all levels. This strategic focus on simplicity and traceability was reinforced by the increasing need for transparency for transfer pricing tax compliance, promoted by the Corporate Tax department as explained below. In 1998, corporate management implemented a version of Economic Value Added (EVA) to measure financial

performance of all product divisions. In the same year, corporate management gave the Corporate Quality department the responsibility to develop the Balanced Score Card (BSC) and to introduce it in all product divisions (1998 Annual Report) .

At SPD, the simplified costing and budgeting system was adopted in 1993. To contribute further to the corporate goal of recovering profitability, Semiconductors management introduced strategic benchmarking that was strictly applied. In addition, the corporate priorities to install clear and transparent systems were among the driving factors for restructuring the product division: between 1996 and 2001 Semiconductors gradually moved towards a matrix structure. Along the product axis of the matrix, BLs were regrouped into SBUs according to the similarity of their products and processes. The strategies of individual SBUs ranged from prospector towards defender strategies and from differentiator to low cost strategies (Miles & Snow, 1979), reflecting the technology involved. Along the functional axis of the matrix, operational and sales activities were increasingly centralised. In 1996, a coordinating ‘SBU Assembly and Testing’ was established to manage the assembly and test plants (controller Assembly and Testing SBU December 2000) and from 1998 on, an increasing number of production plants were allocated to the ‘SBU Production’ (product division industrial planner July 2001). While plants used to be dedicated to a certain BL, most of them were decoupled from their BL by 2000. In that same year, the regional sales organisations were regrouped under a global selling structure and organised along customer-line segments (automotive, consumer etc.). By July 2001, the organisational restructuring of SPD was complete (a BL human resource (HR) manager, April 2001, a BL general manager, August 2001). Against this background of strategic dynamics the potential influence of the tax compliant transfer pricing policy can be assessed (see table 3).

- Insert table 3 here -

Transfer Pricing Design and Tax Compliance

By 1993 the Corporate Tax department (CT) was aware of the developments in the fiscal environment, especially regarding US proposals to strengthen transfer pricing regulations, audits and penalties. At that time

‘we did not actively oversee the transfer pricing policy in the product divisions, nor did we have a written version of their policy. Until 1993 there were a number of general transfer pricing

principles, but the parties involved had some freedom to negotiate transfer prices. ... From 1993 on, the fulfilment of the compliance requirements became the primary goal for Corporate Fiscal. (Corporate Tax director, November 2000).

CT's main concern was the potential incurrence of economic double taxation (internal letter, December 1993). To avoid any misunderstanding with the tax authorities, CT urged the product divisions to explicitly prove that their transfer pricing policy for goods respected the arm's length principle. The internal documents were required to meet the most detailed and strict tax proposals of the IRS. As the IRS and other tax authorities strengthened their regulations, CT continued to educate managers at all organisational levels over 1993 – 2001. The importance of using fiscally acceptable transfer prices and of clear and contemporaneous documentation was regularly emphasised. In addition, internal audits were introduced to monitor correct application of the formal transfer pricing policy (minutes meeting, June 1995, product division internal auditor, October 2000).

Transfer pricing was an important issue for SPD due to the global character of its activities. An official SPD policy was developed first by providing short answers to the information requests of CT (Finance & Accounting department letter, December 1993) and then a 4-page document emerged, including a rough functional analysis (internal memo, September 1994). Stimulated by CT, a SPD Transfer Pricing Workgroup was installed in 1995 to revise the transfer pricing policy. Its aim was to increase consistency throughout the product division and to draft a transfer pricing document that could be used for fiscal compliance (minutes Workgroup, April 1995, May 1995):

‘Such a transfer pricing document needs to be provided by the business because semiconductors is an extremely complex environment’ (Corporate Tax director November 1999).

Using Eccles' (1995) characterisation of administrative processes, we can describe the development of the transfer pricing policy over the time period of the study. The Workgroup consisted of nine members: four financial managers, two corporate tax managers, one BL manager, one plant manager and one person from SPD's legal department (minutes Workgroup, May 1995). However, other managers at all levels in the organisation were invited to discuss the policy during the revision (Semiconductors' management team, corporate internal auditors, controllers and fiscal managers located in different countries, plant managers, plant controllers, BL managers and controllers, SBU managers, controllers from the Chief Financial Officer's (CFO) office and from the Chief Operations Officer's (COO) office, managers from the regional

sales organisations) (internal memo 1995, emails September 1995, faxes June, September and October 1995). The starting point of the Workgroup was the existing transfer pricing practice because the work flow would continue to form the foundation of the revised policy. However, transparency and consistency needed to improve to justify the policy to the tax authorities. The revised policy consisted of an unambiguous formula that had to be universally applied: the uniform approach implied that the same transfer pricing method was used for all semiconductors crossing the borders of their organisational units, wherever these were located geographically. For all manufacturing activities the budgeted costs were the base and the same fixed profit uplift⁶ was added. The national sales organisations needed to pay the regional sales organisations with their sales price minus a fixed, predetermined profit margin. Adjustments were not allowed other than under exceptional circumstances (Minutes Workgroup, June 1995, Note 1995, Memo March 1996, emails 1995, 1996, administrative instruction, July 1999). The possibility of price negotiations was eliminated:

‘The product division Semiconductors uses a transparent transfer pricing model. The main point is that transfer pricing is not determined by negotiations or internal arrangements, but that it is just a fairly measured system. When the model shows a structural defect, it will be discussed at product division level’ (a SBU controller October 2000).

The consequence of using the models is that we avoid endless discussions on plate prices, that we reach easy cost allocations between our plants and the BLs. In addition, it leads to a simpler budgeting process’ (Semiconductors Vice president and SBU controller, March 2001).

The transfer prices were based on budgeted costs, and adjusted to actual costs at year end for fiscal reasons (minutes Workgroup June 1995). Cost data were used, together with internal and external comparables when available (a BL site controller, March 2001).

‘The budgeted transfer prices depend on the expected loads in the plants. ... Normally the prices are benchmarked and should be best in class’ (a BL controller September 2001).

Internal benchmarking had been introduced in 1994 in the light of the strategic objective of recovering profitability. External benchmarking came in 1995, induced both by this strategic objective and by tax compliance rules. The IRS requires transfer prices to be compared to third party references in order to prove their arm’s length character.

‘The strategic reasons and the tax compliance reasons to introduce external benchmarking seem to reinforce each other’ (a BL controller October 2000).

⁶ Only in the 1999 transfer pricing document would the mark-up for production transfer prices become differentiated from assembly and test prices.

In general, transfer prices were calculated once a year. Revisions were possible after approval by the product division's price board, but would only be implemented if substantial and external reasons like currency swings or changed purchase prices occurred (controllers conference 1996, Memo and emails, March 1996).

'transfer prices are considered twice a year. In case of significantly different market prices, it is possible to change prices. However this has never been done, since our model tries to track long-term evolution' (a controller COO office, December 2000).

Several managers added that adjustments were avoided in order to maximise the clarity, both for internal management and for the tax authorities:

'there are hardly any changes in the year in order to avoid confusion'(a plant general manager July 2001).

When conflict arose, SPD managers had to prepare a case and present it to product division management. One SBU controller gave an example of an adjustment of transfer prices because of the pressure on the chip market.

'A structural problem was felt in the production price model. We first had a discussion at SBU level. Later, we discussed this with the COO office. ... During a thorough investigation, different aspects, semiconductor type, prices, package costs, etc were scrutinised... Product division management exceptionally gave in and adjusted the transfer price. Even under these circumstances, the product division is not keen to allow an adjustment of transfer prices' (a SBU controller, October 2000)

In order to meet the tax compliance requirements, CT requested SPD's Finance and Accounting department to implement a 'key document retention policy':

'Retention of all relevant transfer pricing documents is very important for tax audits are to be expected sooner or later in one or more countries' (letter August 1995, memo May 1995).

By the end of 1995, the Semiconductors transfer pricing document consisted of 21 pages⁷. It was published by CT in 1996 as a part of an enterprise-wide transfer pricing document. External consultants checked the document (as well as later versions) and provided more detailed evidence of comparables. Also after 1995, SPD management made efforts to improve the consistent application of the transfer pricing policy. While the 1995 Workgroup had conducted a detailed functional analysis to be included in the documentation,

'we notice that certain developments ... in the Semiconductors environment have quite an impact on the risk factors earlier set and defined. Together with the relevant corporate departments and the members of the product division's management team we reviewed the functional analysis... The main conclusion is that in the manufacturing sector the risk factors in the production plants have developed differently from the assembly and testing area. For that reason the profit uplift has been

⁷ The contents of the 1996 and 1999 Transfer Pricing document are summarised in table 4.

separated providing each of the two sectors with their own related , risk analysis based profit uplift' (internal letter CFO February 1999).

The reinvestigation of the functional profile showed that production required increasingly higher capital investments than assembly and test processes. The mark-ups were therefore revised so that production prices would contain a higher mark-up than assembly and testing prices. This adjustment was included in the revised 1999 official transfer pricing document (transfer pricing document February 1999).

The MNE had experience of a number of audits, more specifically in countries trying to catch up with the detailed US regulations (Corporate Tax team, November 1999), but no significant problems had been encountered during the period under study. Maintaining documentation was the responsibility of the production, assembly and testing and national sales organisations.

'At that level, every step is tracked, especially at production plant and assembly and test level. Much more at the functional level, and less at BL level since they do not receive real invoices. The whole tracking needs to be transparent at any moment. At that level the fiscal audit takes place. The different entities need to be able to prove that they follow the officially installed transfer pricing policy. ... On the other hand, all decisions concerning new production plants are taken at product division level. Because of the need for a centralised coordination, it has no meaning to leave the setting of transfer prices to the businesses. Coordination needs to be done at the central level, in order not to lose the justification towards the tax authorities. From that point of view, SBUs and BLs are never involved. There is the central model, and if exceptions are necessary because it does not work well for 100%, the SBU will try to improve it' (a SBU controller, October 2000).

- Insert table 4 here -

Summary

Table 4 summarises the dynamics in terms of fiscal transfer pricing compliance. We observe that the decision to comply with fiscal transfer pricing regulation permeated through the different levels of the organisation. Managers at all levels were involved in revising the transfer pricing policy and held responsible for compliance and implementation. In addition, an internal audit team was appointed to monitor application of the transfer pricing policy.

MCS Design

We now examine the dynamics of the MCS, guided by the Chow et al (1999) framework for the same period as when the transfer pricing policy was being developed..

Organising controls

From 1993, the priority given to tax compliance at the highest level of the MNE led to uniform and universally applied transfer pricing methods in SPD. Tax compliance motives reinforced the trend that was set by the simplification of the product costing and budgeting system which were introduced for strategic reasons (minutes Workgroup, June 1995). In addition, both the strategic and tax compliance objectives benefited from the restructuring (1996 – 2001) of SPD. After the creation of the SBU Assembly and Testing in 1996, a single, uniform transfer pricing policy governed the transfers between this SBU and the regional sales organisations. Similarly, the establishment of the Production SBU in 1998, made the transfer pricing policy more transparent. In the same year, the transfer pricing model for the national sales organisations was simplified: an identical EBIT (Earnings Before Interest and Tax) percentage was attributed to every country. In sum, the transfer pricing policy became designed and managed in an increasingly centralised way. Interviewees at SBU and BL level appeared to accept this degree of centralisation :

‘The central transfer pricing policy is important in the defence towards the tax authorities. The BL is kept outside of how the product division is organising tax issues with the tax authorities’ (a SBU controller, October 2000).

However, the acceptance of this degree of centralisation was not regarded by all as an advantage.

‘Today, transfer pricing has mainly become a matter for the department of Finance and Accounting. If I can add my personal opinion, I think transfer pricing should be used as an instrument to stimulate the different organisations towards optimal behaviour. For stock management, the implementation of the current transfer pricing policy does sometimes come at the expense of flexibility’ (a BL systems and procedures manager, July 2001).

One BL general manager felt that his business creation task was seriously restricted.

‘I would prefer a closer co-operation between the businesses and the manufacturing plants. In order to reach competitive advantages, we should be able to involve the plants more into the basic business. One of our customers is a Chinese producer of TV sets. ... the Chinese end customers do not ask for a perfect image or a perfect sound, they just want the TV to work. Therefore, the chips we offer are too expensive for the region. Still, in the total chain, it can be an interesting business. While marketers would say: the price is too low, we do not want this business, from a strategic point of view, thinking through the whole chain, this would be a wrong decision from the business creation side they would take a wrong decision based on the internal price construction – this is because we have a uniform transfer pricing system.’ (August 2001).

The BL could not flexibly adjust its transfer prices to support sales in that region without a special request made to SPD management. Entrepreneurship at this BL seemed to be discouraged because of the rigidity caused by the tax compliant transfer pricing policy.

Related to the organising controls is 'structuring of activities'. The uniform transfer pricing procedures had to be respected under all circumstances. This requirement was emphasised by the role of the internal auditors to monitor application of the centrally determined transfer pricing policy. Several interviewees claimed that the resulting transfer pricing policy had a neutral role in the organisation,

'...decisions at SBU level are not much influenced by today's transfer pricing mechanism. It is managed at BL level where it works in quite a neutral way' (a SBU controller, October 2000).

However, an analysis of the dynamics of semiconductor market conditions provides another perspective. Between 1993 and 2001 the semiconductors market showed an overall growth trend but was cyclical with highly volatile growth rates (Mc Clean Report, 2001). After an unprofitable period, the semiconductors market became more favourable in 1995-1998. At the end of 1999, the World economy surged and the boom was characterised by full utilisation of all production utilities. By the end of 2000, however, the situation started to deteriorate. In the Spring of 2001, the downturn of the cycle began to result in inventory adjustments, overcapacity and the start of a global recession. During the recession, BL managers started to put pressure on the transfer pricing system: they tried to get lower transfer prices in order to meet targets and survive the crisis. BL managers were considered to be entrepreneurs along the product axis but their autonomy to outsource was conditional on production and A&T operating at full capacity. The same request came from the functional plant managers who wanted to use lower prices, out of fear that the BLs would not place their orders internally anymore, and would go to external suppliers but the plant managers had no freedom to serve external customers. The COO argued that the outsourcing decision should never be based on price since the price is determined through benchmarking with the market. During 2001, all production decisions were centralised and placed under direct SPD management control, something which was infeasible before the creation of the SBUs. BL managers again felt restricted in their business creation facilities by the rigidity of the centrally imposed transfer pricing policy. Table 5 summarises the events in terms of the organising controls.

- Insert table 5 here -

Planning controls

The calculation of the transfer prices in SPD was based on budgeted costs which adopted a simplified costing system in 1993. Strategic benchmarking became a part of the budgeting process with internal

introduced in 1994 and external benchmarking, where possible being introduced from 1995 (controllers meeting, November 1995, Annual Report, 1998). Internal benchmarking was consistent with the strategic dynamics. External benchmarking was driven by two related factors: strategy and tax compliance (a BL controller, October 2000). The fiscal regulations of the IRS required transfer prices to be compared to third party references in order to prove their arm's length character. The comparison with benchmarking is obvious. The creation of the central SBUs Production and Assembly and Testing facilitated the application of internal and external benchmarking in the operational environment. Benchmarking was strictly applied in the manufacturing plants, and encouraged them to aim at 'best in class' prices (1999 Transfer Pricing document, a BL site controller, March 2001). The benchmarks were centrally determined at SPD.

Over the period of analysis, budgeting was described as a two-way process:

'Budget proposals start from bottom-up expectations, and are then corrected top-down in order to reflect strategic intentions. Both processes come together during a negotiation process, which makes the SBU and the BLs quite aligned' (a BL controller, October 2000). However, benchmarking and top-down considerations received more weight than bottom-up considerations and lower-level managers did not seem to experience real participation (a BL HR manager, April 2001):

'The final budget could differ quite substantially from the proposal by the BL. ... The proposal is judged against two elements: a historical comparison - is it realistic, can we expect a strange swing and why? - and the strategic intention that has been agreed upon in the SBU, which is even more important. For these reasons, the BL proposal is often amended' (a SBU controller, October 2000).

By the time the BSC was introduced, the emphasis on traditional annual budgeting lessened in favour of rolling forecasts and external benchmarking (1998 Annual Report, Corporate Quality Director, April 2001)

In terms of target setting, all targets were set up to be SMART (Specific, Measurable, Applicable, Realistic and Time related) (a HR manager, September 2001). SPD determined the financial measures of the BSC and EVA was added to EBIT and cash flow as targets. EVA was calculated by applying a number of corrections to EBIT, particularly for working capital and, notably, tax. Both corrections were centrally determined and could not be influenced by the managers under evaluation. The inclusion of the tax correction factor, which tracked jurisdictional changes in different countries, may be viewed as a means to promote respect for the centrally imposed tax compliant transfer pricing policy. In contrast, the competence and process elements of the BSC were set at BL and plant level.

“In terms of the evolution of performance evaluation over time, the focus is now clearly more on financial targets and returns. It went from attention to the recovery of profitability to shareholder value and growth potential. Elements of concern are found back in the way managers are steered and in the way targets are formulated.”(HR manager BL, 2001).

The introduction of the BSC was significant for target setting:

‘In terms of target setting, controllability is important. The financial elements are determined at the central level, while departmental targets are determined by the people in the business themselves’ (a BL HR manager, September 2001).

In terms of the planning controls, we observe an increased emphasis on benchmarking uniform targets where lower management participation seems restricted. Lower level manager participation to set targets or change benchmarks appears restricted and tightness, especially of financial targets, appears to depend on the perceptions of SPD management. The facts are summarised in Table 6.

- Insert table 6 here -

Evaluating and rewarding controls

The performance of individual managers was evaluated in relation to predetermined targets. The introduction of the BSC , through the Corporate Quality department , in 1998 meant an important development for performance evaluation in SPD.

‘In our BSC, we have the four elements. The financial ones are the top ones. ... the lagging indicators. Monthly we report on EBIT. ...For the customer related items, we look at what the requirements are...Process measures are internal, and should be a leading indicator. The fourth one is competence, where we measure the number of improvements made, how many people with the right competence are at the right place etc.’ (corporate quality director, April 2001).

In 2000, the BSC was reviewed:

‘The product division is still searching for the variables that are best for driving people, given that in this sector, the cyclical and dynamic market has a major influence’ (corporate quality director, April 2001).

Top Management at SPD was responsible for determining the ‘external’ (financial and customer-related) performance indicators, while the ‘internal’ performance indicators (competence and process measures) were determined by the lower level managers. Even with the introduction of the BSC, interviewees stressed that the financial measures received the primary focus:

'In terms of the evolution of performance evaluation over time, the focus is now clearly more on financial targets and returns. It went from attention to the recovery of profitability to shareholder value and growth potential.' (a BL HR manager, April 2001).

But clearly the BSC enabled performance evaluators to incorporate non-financial elements:

'The BSC has in any case the advantage of enabling the soft aspects to be measured in a better way. HRM is learning to experiment with it...I'm getting prepared to make these elements more concrete. ... Moreover, evaluation has become more acceptable on a lower level' (a BL HR manager, August 2001).

The introduction of the BSC with a greater recognition of non-financial performance indicators is , arguably, a logical response to the lack of control managers within SPD exercise over transfer pricing. Whilst included in the EBIT, cash flow and EVA measures for production and A&T, the benchmarked, unchanging, budgeted transfer prices can only be bettered by reducing actual costs. An advanced plant manager (September, 2001) reported

"I try to make the BSC reflect as closely as possible what the operators and engineers see in the factory, and make these visible elements find a connection with the financial programme... multiply shipments by the production transfer price, deduct costs and you get EBIT."

The plant manager, knowing the transfer price, could estimate the EBIT for each load and EBIT less the centrally determined weighted average cost of capital multiplied by inventory and deducting the tax charge gave EVA. Hence, productivity, shipments and other non-financials relating to process and competence become primary controllable items for plant managers. The main focus is to reduce costs.

Similarly, the national sales organisations recognised that the financial targets could only be out-performed by increasing sales volumes. The fixed profit percentage embedded in the resale minus transfer price did not, however, distinguish between higher and lower margin products. SPD management (Vice-president and SBU controller, April 2001) realised this.

"We are currently discussing whether it is good to evaluate based on sales volume, and whether the evaluation should not be based on margins, on product mix. From a managerial point of view it makes sense to investigate whether the sales parties get the maximal value out of the market. I stress this is a managerial, not a fiscal issue... This current discussion would again open up the way towards more dialogue between the BL and the sales organisation, so that a higher margin can be squeezed out of the market. It would lead to margin targets in the countries and in the regions. The result is that sales

organisations might ask again for the transfer prices to be adapted. But such adjustment of transfer prices is what we at SBU level want to avoid.”

For the BLs and SBUs which are responsible for products worldwide, the combination of intractable transfer prices and an emphasis on financial performance indicators meant initiatives such as a market penetration strategy had to be considered carefully.

“It is also possible that a BL wants to participate in that market because of strategic reasons. When the BL is not profitable in that market and expects it will become profitable within one year and a half, it will accept the losses. It is a strategic discussion that can lead to pressures to adjust transfer pricing. However, SPD wants to keep the transfer pricing system simple, and does not want to start to adjusting it.” (Vice president SPD and SBU controller and SBU controller, March 2001).

Despite the limited control managers within SPD can exercise over the financial indicators, non-attainment resulted in no cash bonus award. Reasonable explanations of deviation in terms of non-financial targets can lead to a bonus being given (Bonus system manual, July 1998). The bonus system is further complicated by the number of performance indicators and weightings. Typically the financials (EBIT, cash flow, EVA) are not the single most important (25%) because group (30%) and site or departmental targets (30%) are more heavily weighted. Key project metrics related to BSC competence and process comprise 15%. Some differentiation is apparent in the form site or departmental targets take and also key project metrics which suggests these are tailored to individual managers, consistent with the intentions of the BSC. However, it is unclear whether the bonus awarded for financial performance is greater than that awarded for good performance along the remaining dimensions. During the downturn in 2001 when SPD management took over all operational decisions, all bonus payments were suspended. (HR manager, September, 2001).

The combined introduction of the BSC and the performance contingent financial rewards scheme in Europe in 1998 appears to be under continuous review. The demands of accommodating multiple performance indicators and weightings has stimulated some to re-emphasise the financials only (SPD, COO, September 2001) whilst others favour further refinement (plant manager, assembly, June 2001).

Overall the evaluating and rewarding controls suggest a limited increase to the extent competence and process performance indicators and targets can be selected. Managers within SPD experienced a reduction in extraneous factors influencing their financial evaluation but controllable outcomes are more visible by

examining non-financials such as productivity or shipment deliveries. The apparently sophisticated rewards scheme distinguishes attainment of financial and non-financial indicators of performance but the motivational impact is difficult to gauge. Particularly at the sales organisations, effort may be undirected and at BLs, initiative may be stifled by the emphasis on financial measures. Nevertheless, there is an indication of performance contingent rewards evolving within the MNE to effect all levels of managers.

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Discussion

From the mid-1990s, fiscal regulations relating to international transfer pricing has shown a marked increase in a number of countries. The 'political visibility' (Watts & Zimmerman, 1986) of the MNE under study made it a potential target for upcoming transfer pricing audits, especially at times of growth in the global market. Furthermore, corporate and product division managers explained that

'our MNE has regular contacts with national governments worldwide for many other reasons than for transfer pricing. An example is the application for a patent or a technical licence. If our MNE would set up its transfer pricing policy to shift all profits to the low tax countries – even if it would be able to cover itself completely from a fiscal point of view – we would not count on a lot of goodwill from the tax authorities' (product division controller, August 2000).

The chronological analysis, summarised in the time-ordered matrices of this case study, reveal the dynamics of the complex inter-actions between tax compliance and the design and use of the MCS.SPD installed a uniform and transparent transfer pricing policy at the request of CT and MNE headquarter management. A single set of transfer pricing methods and records was used for both management control and tax compliance purposes. We observe that the tax compliant transfer pricing policy permeated the different levels of the organisation: all managers were requested to comply with this uniform policy. In addition, to ensure the consistent implementation of the policy throughout the organisation, monitoring of transfer pricing became one of the main tasks of the internal audit team. The corporate focus on tax

compliance particularly influenced the design of the MCS. Proposition 1 is therefore formulated as follows:

Centralisation and greater structuring of activities appear to be a direct consequence of the decision to establish a uniform, tax compliant transfer pricing policy. From 1993 on, CT staff influenced and promoted the need for detailed transfer pricing documentation. In 1995, a Workgroup was installed at product division level to review the transfer pricing policy in accordance with the fiscal requirements. An important objective was to make the transfer pricing policy of this complex and large product division understandable for divisional managers and outsiders like the tax authorities. The Workgroup further streamlined the policy to formulate it as simply and uniformly as possible. The CT department undertook the same role in other product divisions in order that the MNE had an official transfer pricing document. An important part of the transfer pricing documentation consisted of the functional analysis, and data about comparables in order to justify the transfer price. The functional analysis seems to have played an important role in the decision to restructure activities. By recognising the same functions, wherever they were located geographically, the same transfer pricing method could be applied. A transfer pricing document retention policy was established to ensure that all relevant transfer pricing information was kept on a contemporaneous basis. SPD's documentation contained the transfer pricing model from which deviations were only exceptionally allowed. CT no longer allowed transfer pricing negotiations across the product division because negotiated transfer prices are incompatible with the arm's length principle (OECD,1995).

By 2001, the restructuring of the product division's design was completed. Production, and assembly and testing were recognised as separate SBUs. In addition, BLs and SBUs were reorganised and regrouped. Greater central control was then exercised in that all similar, functional activities, assuming similar risks, were expected to perform at similar levels determined by the internal or external benchmarks or comparables. The earlier simplification of the budgeting and costing system enabled the development. The consistent application of the uniform transfer pricing formula resulted in the removal of any anomaly affecting the comparability of performance of similar organisational units, both within and outside SPD, when external benchmarks were available. Benchmarks were centrally determined and rarely changed in the annual budget. As a result, corporate management's capability to provide central direction improved under the evolving organising controls.

The need for participative budgeting lessened given the change in organising controls. Production scheduling to ensure full capacity utilisation of production and A&T plants became feasible at Group and SPD. Confidence in the benchmarks gave planning a degree of certainty and simultaneously provided universal performance criteria for all similar functions undertaking similar risks. The use of external benchmarks reflected competitors' achievements and potentially challenging targets for internal operations to attain.

The combined effect of the evolution of organising and planning controls seemed to have a mixed influence on participative performance evaluation. Financial performance indicators reflected managerial controllability within SPD to a lower extent. Group and SPD management set the benchmarks for transfer pricing and, for EVA, the capital charge and tax correction rates. Plant and sales organisation managers influenced cost and sales volume decisions respectively but within a centrally planned production schedule. Operational measures, such as, the number of shipments, customer response times, sales by segment, production yields gained in importance as controllable, lead indicators. The BSC formalised their prominence by inclusion under process and competence factors. At the time of this study, participation over non-financials appears to have increased whilst controllability over financials diminished. The award of cash bonus depended on strict attainment of financials but not the non-financials. Reasonable explanations of deviations below competence and process measures might still trigger a bonus. The rewards are also contingent on departmental or site and group targets being met.

Proposition 1;

Adoption of a tax compliant transfer pricing policy triggers a review of the MCS initially in terms of organising controls and then with effect on planning, evaluation and reward controls.

In several respects, the implementation of MCS design changes following the tax compliance strategy can be viewed as enabling. The educating role of CT to increase SPD managerial awareness and to involve a cross-section of managers in the Workshop to develop the transfer pricing documentation illustrate this. Arguably, internal and global transparency clarified the terms and processes of intra-group trade. Once implemented, however, the scope for managers within SPD to "repair" comparables or to deal flexibly with changing market conditions is extremely constrained. The uniform application and monitoring of the transfer pricing methods created the impression of totally programmable operations reinforced by extensive documentation. Trends in organising and planning controls to centralise intra-

group relationships suggest the use of an increasingly coercive bureaucratic MCS. For every exception to the documented policy, SPD management approval is required. This included decisions concerning comparables or benchmarks, outsourcing and market initiatives.

Proposition 2:

Adoption of a tax compliant transfer pricing policy increases the coercive, as opposed to enabling use of the MCS in MNEs.

The inability of SPD lower managers to participate and change the rules concerning transfer pricing reduced their flexibility and repair. As a consequence, the capacity to innovate and inaugurate change is stifled. For example, BL managers following a market penetration strategy needed to show short-term gains or live with the consequences of the performance contingent reward scheme. Initiatives to open new markets, such as China, appeared financially unviable under the uniform transfer pricing policy. When faced with economic crisis, top management reaction was to centralise operational decisions to maintain capacity utilisation as far as possible. The coercive bureaucracy ensured the transfer pricing policy remained intact.

In the domestic context, Eccles recognised that “pressures for uniformity in transfer pricing policies will be based on the advantages of administrative simplicity and concerns about fairness” (1985,256). The pervasive effect of adopting a tax compliant policy in the international setting suggests that commercial flexibility and innovation will be severely constrained.

Proposition 3:

Adoption of a tax compliant transfer pricing policy limits the discretion of management to be innovative when facing dynamic environments.

When researchers seek to understand the design and use of the MCS in complex, modern-day enterprises, such as MNEs, the priority corporate management affords tax compliance requires consideration. Despite attempts to gain alternative explanations through negative case reasoning, our study proposes an extension of the contingency literature in order to include tax compliant transfer pricing as an endogenous consideration in examining the MCS. This represents an extension of existing contingency theory frameworks (Chenhall, 2003; Luft & Shields, 2003; Fisher, 1995). It is by no means clear whether non-compliant transfer pricing policies inter-act with the design and use of the MCS in a different way. Neither

is it possible to speculate whether degrees of tax compliance are feasible or equally influential. The dominant view taken by this MNE favoured the use of the same transfer pricing policy in daily business activities as the best defence against fiscal intrusion and enquiry.

Conclusions

This study investigated the interactions between one MNE's approach to tax compliance and the design and use of the MCS. Insights are gained from an in-depth case study in this established and successful MNE which used the same transfer pricing system for tax compliance and internal management. We find that the consequences of transfer pricing tax compliance permeated the different levels of the organisation and the controls of the MCS. The initial effect concerned the increased degree of centralisation and structuring of activities (Chow et al., 2003) stimulated by the need for a uniform policy which provides justification for fiscal authorities. In the longer run, planning and evaluating and rewarding controls were also affected. Target setting became a pseudo-participation exercise. The lower degree of controllability that managers could exercise in terms of transfer pricing and the related financial results was partly compensated by the introduction of the BSC and the recognition of process and competence performance measures. The BSC enabled managers to be additionally evaluated on self-selected, non-financial performance measures but the reward and performance evaluation system remained financially focused and distinguished attainment in terms of financial and non-financial measures. During the period under study, the MCS forced managers towards decision execution rather than decision-making due to the uniform transfer pricing policy which needed to be consistently applied under all circumstances. Coercive application of the tax compliant transfer pricing policy therefore limits managerial discretion to focus on efficiency and constrains the scope to innovate and improve effectiveness.

Our main conclusion is that the priority afforded tax compliance impacted on the design and use of the MCS. We therefore support the notion of recognising fiscal regulation as a contingent variable to examine MNE internal processes in future studies.

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Figure 1: The framework of analysis

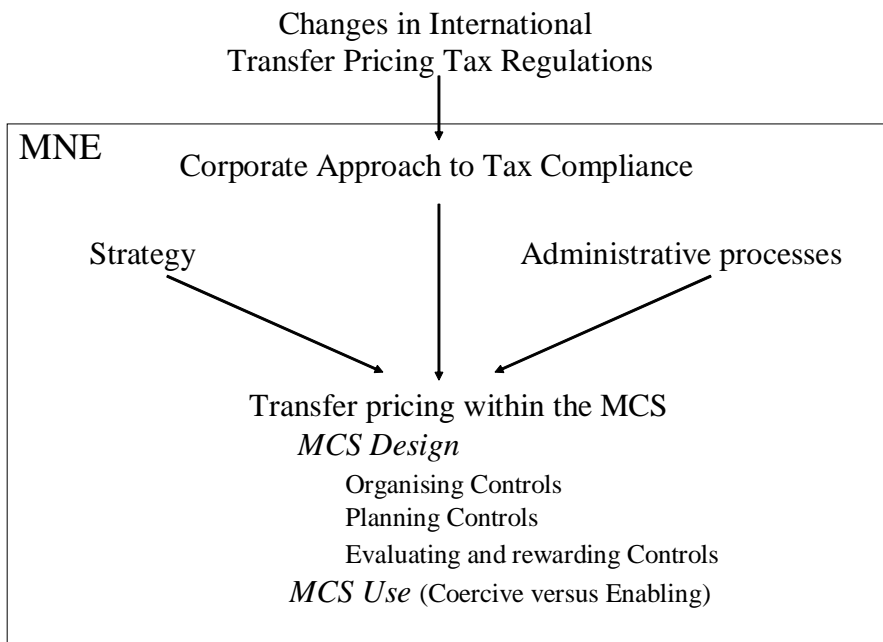


Figure 2: The value chain within the product division Semiconductors in 2001

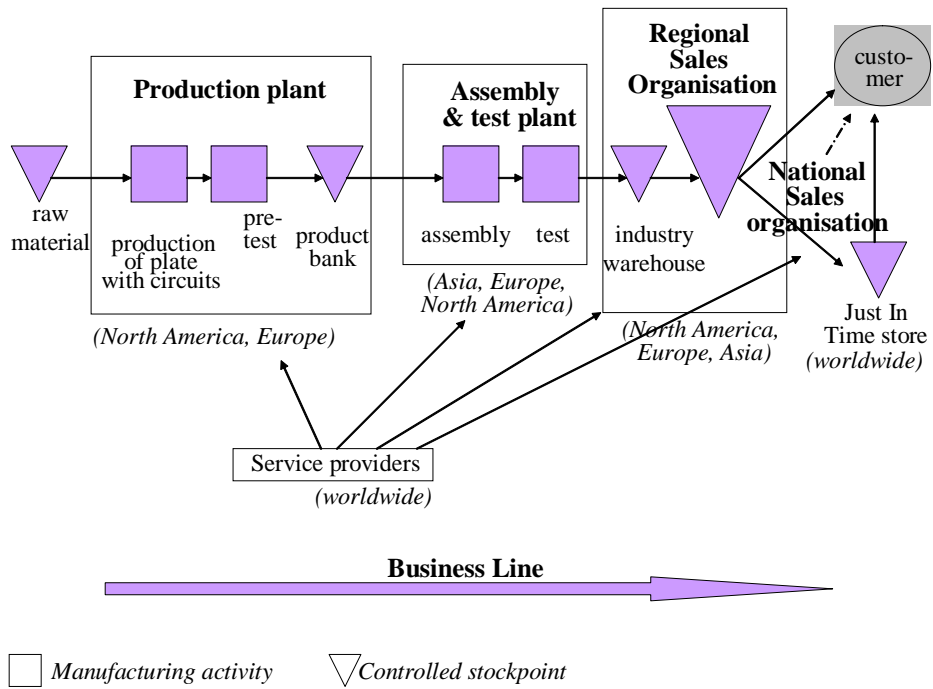
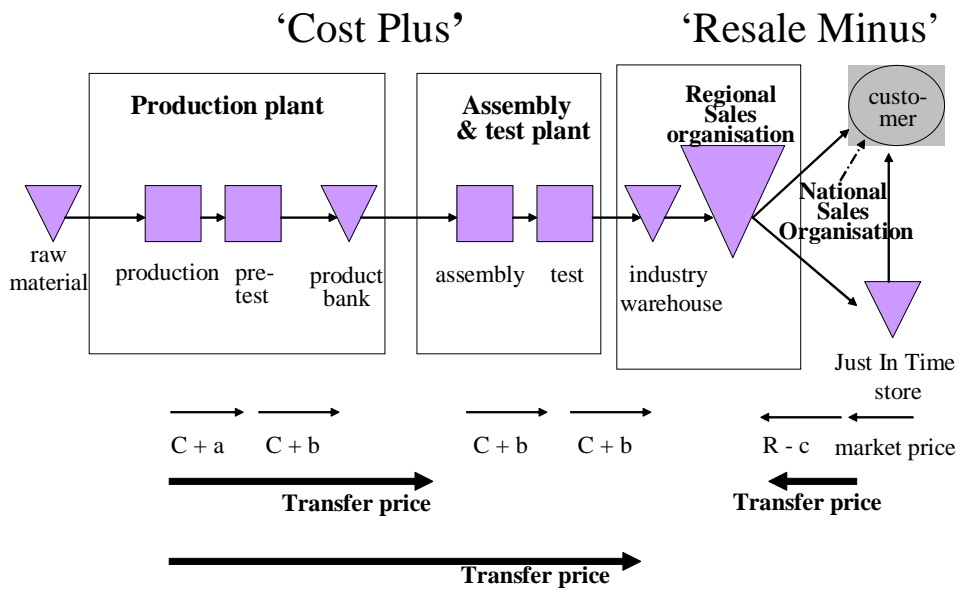


Figure 3: Product transfer pricing in the product division Semiconductors in 2001



Manufacturing environment: Cost (C) + uniform, fixed profit uplift

(a for production, b for assembly or testing)

Sales environment: Resale price (R) – uniform, fixed profit margin (c)

Table 1: Types of archival documents used for analysis

(111 in total, prepared between December 1993 and July 2001)

Documents		
Type	MNE document	External document
organisational organigrams	internal	
flow charts of logistics chain	internal	
annual report		published information
company description		published in annual report
MNE website		public information
official TP documents	internal	confidential: only for the tax authorities
memoranda on TP		towards tax regulatory bodies
TP price models	internal/confidential	
price calculations	internal excel file	
administrative TP instructions	internal/confidential	
memos	internal	
minutes of meetings	internal	
internal letters	internal	
discussion notes	internal	
emails	internal communication	
emails: follow up interviews		sent to the researcher
internal memoranda	internal/confidential	
faxes	internal correspondence	
BSC of subunit	internal	
performance evaluation of plants	internal	
target allocation schemes	internal/confidential	
bonus agreements	internal/confidential	
performance appraisals	internal	
slide shows	internal	
market and business outlook		industry association
slide show		consultants
tax memorandum		enterprises association

Table 2: Summary of interview data used for analysis

Interviews		
Type	Number of hours	Number of people interviewed
Preliminary interviews	9	7
In-depth case interviews	46.5 – 2.5 (preliminary hours) = 44	23 in total
--- at the following levels		To say:
-----Corporate	Tax managers	----3
	Quality Director	----1
	Internal auditor at product division	----1
-----Product Division	Controller	----1
	Plant controller	----2
	Industrial planner	----1
	General plant manager	----2
-----SBU	Controller	----2
-----BL	General manager	----2
	Controller	----4
	HRM	----3
	Logistics manager	----1
Outside transfer pricing experts	25.5	16
Follow-up inside MNE	8	8
Follow-up outside MNE	6	16
Total number of interview hours	92.5	

Table 3: Dynamics in strategy and organisation design

Strategic focus	1993 – 1998	1998 - 2001
Corporate level	Recovery of profitability: simplified product costing and budgeting system	Creating shareholder value: introduction of EVA and BSC
Product division level	Implementing new costing/budgeting system, introduction of strategic benchmarks	1998: Implementation of EVA and BSC
	1996-2001: restructuring towards matrix form: product axis: SBUs with different BLs functional axis: 1996: SBU Assembly & Testing; 1998: SBU Production; 2000: restructuring of sales organisations	

Table 4: Dynamics in transfer pricing fiscal compliance

Initiative by Corporate Tax department	Reaction by Product Division Semiconductors
1993: Request to all product divisions to document their transfer pricing policy for goods	1994: Prepared a 4-page Semiconductors transfer pricing document Contents: current transfer pricing methods in use, motivation, regional and national sales organisations, conclusion
1995: Request to product division Semiconductors to elaborate on the transfer pricing policy for goods	1995: Set up a Transfer Pricing workgroup with 9 fixed members (from financial department, Corporate Tax Managers, BL manager, plant manager, Semiconductors legal department) and other managers involved regularly (corporate internal auditors, SBU managers, regional sales managers)
1996: Publication of an enterprise-wide transfer pricing document. External consultants checked the documents and provided evidence of comparables.	1996: Provided a 21-page Transfer Pricing document: Contents: Introduction, Description of semiconductors activities, Legal structure, Business organisation, Basic transfer pricing policy, Transfer pricing method for the manufacturing organisations, Transfer pricing method for the selling organisations, Functional analysis, Transfer pricing to other MNE organisations, Other issues
1999: Publication of a revised enterprise-wide transfer pricing document.	1999: Differentiated the mark-up for production (higher) from the mark-up for assembly and test activities Contents: identical sections as in 1996 document.

Table 5: Dynamics in terms of organising controls

Tax compliance	MCS Design
Centralisation / decentralisation	
<p>Since 1993: Need for a consistent and transparent transfer pricing policy as the best defence towards the tax authorities worldwide</p>	<p>1993 - 1994: Implementation of simplified budgeting and costing system in the product division Semiconductors 1996: Central design of uniform assembly and test transfer prices 1998: Central design of uniform production transfer prices</p>
Structuring of activities	
<p>Since 1993: Need for clear transfer pricing procedures and an understandable document for tax compliance</p>	<p>1994: First Semiconductors transfer pricing document 1995: Internal tax team involved to follow up the implementation of the official transfer pricing policy 1996: Second Semiconductors transfer pricing document, containing an extensive functional analysis 1999: Third Semiconductors transfer pricing document provided, with differentiated uplifts for production versus assembly and testing</p>

Table 6: Dynamics in terms of planning, and evaluating and rewarding controls

Tax compliance	MCS Design
Planning controls	
<p>1993: Need for a consistent and transparent transfer pricing policy as the best defence towards the tax authorities worldwide</p>	<p>1994: Implementation of simplified costing and budgeting system in the product division Semiconductors, formally designed to involve both a bottom-up and top-down process 1995: Transfer prices were based on budgeted prices 1996: The same targets were imposed for all assembly and test plants 1998: The same targets were imposed for all production plants</p>
<p>1995: Need for external benchmarks, i.e. comparables</p>	<p>1994: Introduction of internal benchmarks 1995: Introduction of external comparables</p>
Evaluating and rewarding controls	
<p>1993: Corporate Tax department started to put pressure to install a uniform, consistently applied transfer pricing policy.</p>	<p>1998: Introduction of BSC on a company-wide basis: financial and customer-related performance measures were determined by product division level; competence and process measures determined by managers involved at all managerial levels 1998: Introduction of bonus system in Europe (already existing in US and Asia). For financial BSC targets: no bonus was given if these financial targets were not attained. For all other BSC targets: if the managers could give a reasonable explanation for not attaining these targets, a (part of the) bonus could still be given 2000: Review of the BSC and introduction of rolling budgets 2001: Product division management puzzled about the performance evaluation system of the national sales organisations: if more control over costs was installed, the current transfer pricing system could come under pressure</p>