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## Management control in the transfer pricing tax compliant multinational enterprise

Martine Cools<sup>a,\*</sup>, Clive Emmanuel<sup>b</sup>, Ann Jorissen<sup>c</sup>

<sup>a</sup> *Lessius University College (Association KU Leuven) & Rotterdam School of Management, Lessius, Korte Nieuwstraat 33, 2000 Antwerpen, Belgium*

<sup>b</sup> *University of Glasgow, 65 Southpark Avenue, Glasgow G12 8 LE, United Kingdom*

<sup>c</sup> *University of Antwerp, Prinsstraat 13, 2000 Antwerpen, Belgium*

### Abstract

This paper studies the impact of transfer pricing tax compliance on management control system (MCS) design and use within one multinational enterprise (MNE) which employed the same transfer prices for tax compliance and internal management purposes. Our analysis shows immediate effects of tax compliance on the design of organising controls with subsequent effects on planning, evaluating and rewarding controls which reveal a more coercive use of the MCS overall. We argue that modifications to the MCS cannot be understood without an appreciation of the MNEs' fiscal transfer pricing compliance process.

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### Introduction

This study addresses the influence of transfer pricing tax compliance on the design and use of management control systems (MCSs) in multinational enterprises (MNEs) using one set of transfer pricing books. The domestic management accounting and control literature stresses the role of transfer prices as MCS instruments that differentiate and integrate the actions of parts of the

organisation and impact on performance evaluation (Colbert & Spicer, 1995; Eccles, 1983, 1985; Gosh, 2000; Luft & Libby, 1997; Spicer, 1988; Swieringa & Waterhouse, 1982; Van der Meer-Kooistra, 1994; Watson & Baumler, 1975). Cross-border transfer pricing in MNEs<sup>1</sup> have traditionally received a place in other streams of the

<sup>1</sup> In a multinational environment, the transfer pricing policy contributes to a large variety of goals, including profit maximisation, cash flow, sales and marketing goals; minimising taxes, duties and tariffs; and achieving socio-political goals related to financial restrictions, currency fluctuations and host country relations (Dunning, 1980; Leitch & Barrett, 1992).

\* Corresponding author. Fax: +32 3 201 1842.

E-mail address: [martine.cools@lessius.eu](mailto:martine.cools@lessius.eu) (M. Cools).

literature. Tax law studies discuss national tax regimes, tax compliance requirements, and the optimal transfer pricing method from a fiscal point of view (Douvier, 2005; Kroppen & Eigelshoven, 1998; Levey, Brandman, & Miesel, 2001; Swenson, 2001; Van Mens & Porquet, 2001). Tax accounting studies investigate the degree to which national tax rate differentials lead to transfer pricing manipulation and income shifting (Grubert & Mutti, 1991; Gupta & Mills, 2002; Halpirin & Srinidhi, 1987, 1991; Harris, 1993; Harris, Kriebel, & Raviv, 1982; Jacob, 1996; Jensen, 1986; Klassen, Lang, & Wolfson, 1993). The contingency literature provides an alternative perspective by identifying the objectives of a company's (international) transfer pricing policy and the organisational and environmental determinants – such as the tax regulations – of its transfer pricing method (Borkowski, 1992a, 1992b, 1996, 1997; Cravens & Shearon, 1996; Cravens, 1997; Emmanuel & Mehafdi, 1994; Tang, 1979).

We aim at refining the general statement from the contingency literature that 'international tax rules affect the choice of the transfer pricing method' by investigating the potential impact of tax compliance on the design and use of the MCS within MNEs. Tax compliance has recently gained in importance given that fiscal authorities worldwide have strengthened their transfer pricing tax rules. While the extant tax law and tax accounting literatures focus on fiscal optimisation, a number of recent analytic studies calculate the transfer prices that reconcile managerial and tax objectives under certain static circumstances (Baldenius, Melumad, & Reichelstein, 2004; Halpirin & Srinidhi, 1991; Hyde, 2002; Hyde & Choe, 2005; Narayanan & Smith, 2000). In contrast, we use a case study to investigate the process over time when searching to answer our central research question: *What is the impact of the steps taken to comply with international transfer pricing regulations on the design and use of the MCS in an MNE using one set of transfer prices?*

The MNE under study chose to adopt tax compliant transfer pricing by using the same set of books for both MCS and tax purposes, an assumption of most analytic articles (Halpirin & Srinidhi, 1991; Sansing, 1999; Smith, 2002a). Some

recent studies (Baldenius et al., 2004; Hyde & Choe, 2005; Smith, 2002b), however, model two distinct transfer prices, one to serve incentive purposes and the other to serve tax purposes. Still, MNEs commonly use the same set of books, 'both for simplicity and in order to avoid the possibility that multiple transfer prices become evidence in any disputes with the tax authorities' (Baldenius et al., 2004, p. 592; Durst, 2002; Ernst & Young, 2001, 2003, 2005). Consultants advise MNEs to implement one set of books to demonstrate to the tax authorities that transfer pricing is justified by internal, rather than purely tax-driven motives (Ernst & Young, 2001, 2003). While the analytic literature regards tax compliance as a fact, the current study on MCS design and use explicitly examines the process of gaining tax compliance: for one successful MNE the redesign of the transfer pricing system to ensure fiscal compliance and its impact on the MCS are investigated over the period 1993–2001. We use Eccles (1985) work to describe the tax compliance process, while Chow, Shields and Wu's (1999) framework guides the analysis of MCS design, and Adler and Borys (1996) and Ahrens and Chapman's (2004) concepts of 'enabling' versus 'coercive' control systems guide the analysis of MCS use. The data are partly historical, based on archival documents and recollections by managers, and partly longitudinal, with one researcher having been present in the case company between 1999 and 2002.

We find that our company's tax compliant transfer pricing policy permeates all levels of the organisation and influences elements of its MCS. Analytic generalisation suggests that tax compliance is an additional contingent variable when seeking to understand MCS design and use in MNEs. Our study therefore contributes to the contingency school of accounting research investigating how the role of management accounting is influenced by environmental factors (Abernethy & Lillis, 1995; Ahrens & Chapman, 2004; Chenhall, 2003). We also aim at responding to the call for theoretical contributions that explain how transfer pricing processes within the MCS are actually managed (Colbert & Spicer, 1995; Spicer, 1988) and delve into the deeper internal consequences of transfer pricing in MNEs (Cravens &

Shearon, 1996; Cravens, 1997). As a result we can develop a number of propositions that may provide potentially interesting avenues for future research. Given the paucity of evidence on the role of transfer pricing for management purposes in MNEs, the interviews and archival data provide a unique insight. The study is also relevant for policy matters: tax authorities wish to stop tax evasion and manipulation but also to prevent double taxation, while MNEs seek to comply with regulations but also to create shareholder (after tax) value. Within these broad tensions, the consequences of the fiscal ‘arm’s length’ principle for internal decision making, performance evaluation and managerial motivation are largely unknown (Eden, 1998; Hamaekers, 2001).

The remainder of the paper is organised as follows. The next section on the tax regulatory environment outlines the broader context of the study. We then review the organisational behaviour and MCS literatures and describe the research method used and the research site. In the next section we present the results of our dynamic analysis. After sketching out the MNE’s overall corporate strategy for the period 1993–2001, we discuss, for the same period, its emerging tax compliant transfer pricing policy and the way in which changes in the latter have impacted its MCS. This is followed by the development of four propositions on the consequences of tax compliant transfer pricing for the design and use of the MCS. Finally, this paper ends with the discussion of our single case study findings, our overall conclusions and suggestions for future research.

### Tax regulatory environment

Globalisation causes an increasing volume of trade to remain outside the scope of market forces. UNCTAD (2003), for example, reports that 60% of international trade takes place within MNEs. As the tax accounting literature indicates, the differential national tax regimes invite MNEs to engage in income shifting. National governments react by installing transfer pricing regulations, mostly in line with the OECD Transfer Pricing Guidelines. The first OECD Guidelines were

issued in 1979 and implemented by a number of Western countries. By the end of the 1980s, the potentially negative tax effects of foreign MNEs’ transfer pricing policy became the centre of political debate in the US (Hamaekers, 2001), resulting in revised and strengthened transfer pricing regulations in 1994 (IRS, §482 and related §). The OECD responded with reformulated Transfer Pricing Guidelines in 1995. Consequently, tax authorities in over 44 countries (OECD and non-OECD, developed and developing countries) have implemented more explicit and detailed rules, mostly in line with these OECD Guidelines, and at the same time have increased their administrative resources to monitor compliance. Several jurisdictions apply severe penalties, not only when tax adjustments are needed but also for inadequate or untimely documentation. The threat of transfer pricing tax audits has become real for every MNE (Eden, 1998; Ernst & Young, 2005), witness the recent IRS claim for additional taxes of US \$2.7 billion plus interest of US \$2.5 billion on Glaxo-SmithKline (The Economist, 2004; Wright, 2004).

The arm’s length principle 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, 1992). Ideally, transfer prices should be based on market prices, but for various reasons a market-based transfer price might not exist:<sup>2</sup> transactions taking place between the divisions of the same firm are often unique 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, 1992a). The 1979 OECD Transfer Pricing Guidelines recognise three transfer pricing methods<sup>3</sup> that, depending on the circumstances and the characteristics of the transfer, provide a suitable application

<sup>2</sup> Therefore, academics (Eden, Dacin, & Wan, 2001; Picciotto, 1992) and practitioners (Ernst & Young, 2003; Weiner, 2001) challenge the arm’s length principle.

<sup>3</sup> A category called ‘fourth method’ allowed other methods to be used if justified (OECD, 1979).

of the arm's length principle: the comparable uncontrolled price method (identifies and applies a market price), the cost-plus method (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 (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 practical difficulties, the traditional transactional methods were 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 (evaluates operating profit relative to an appropriate base like sales or assets, to verify that the profit earned by the MNE's division is comparable with that which an uncontrolled company will earn under similar circumstances) and the profit split method (divides the total profit between the buyer and seller to reflect the profits that two unrelated parties earn undertaking a similar transaction). Despite the dominance of the arm's length principle and the OECD Guidelines, MNEs do not experience transfer pricing tax compliance as an easy task. National tax authorities interpret and implement the fluid arm's length principle in different ways, reflecting long-established domestic tax practices (Eden et al., 2001; Picciotto, 1992). 'The consequential divergence in approach among tax administrations is a growing concern to MNEs – particularly as countries with no prior formal transfer pricing rules or experience seek to introduce them' (Ernst & Young, 2003, p. 5).

The revised rules entail extensive documentation requirements, urging MNEs to explicitly justify their transfer pricing policy and to demonstrate it is based on sound business grounds (IRS, 1994; OECD, 1995). A crucial part of the documentation is the functional analysis, which requires a detailed analysis of the various functions undertaken, the assets used and the risks taken by the different parties involved in the intra-firm transaction. The more completely the documentation supports the MNE's transfer pricing policy, the more likely the tax authorities will accept it. 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. MNEs tend to draw up their transfer pricing documentation to comply with the most stringent rules of tax jurisdictions, because bi-lateral tax treaties<sup>4</sup> and advanced pricing agreements (APAs) cannot progress until these are satisfied (Cools & Emmanuel, 2007). The EU has an Arbitration Model in place, but again extensive documentation is required to defend the transfer pricing policy (EU Convention 90/436/EEC, 1990).

Currently, the IRS holds the distinction of articulating regulations in the finest detail. In contrast to the OECD Guidelines, the choice of transfer pricing method has to be justified over other methods, which necessitates the search for comparables. 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. A detailed industry sector analysis is then required. Most MNEs hire specialists to corroborate the evidence, which is a costly and time-consuming undertaking especially as annual maintenance and updating 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 further adds to the dynamics of fiscal compliance.

### Theoretical guidance

In the context of the stricter, more detailed tax regulatory framework, we examine the design and use of the MCS. Fig. 1 introduces the variables that have guided our analysis, based on a review

<sup>4</sup> If one country's tax authorities judge that the MNE has not respected the arm's length principle, they are allowed to adjust this MNE's taxable base (Article 9, OECD Model Tax Convention, 1992). However, the adjustment in one jurisdiction does not require a similar adjustment in the other jurisdiction. Such conflicts, causing double taxation for the MNE involved, can be resolved if governments enter into bi-lateral tax treaties.

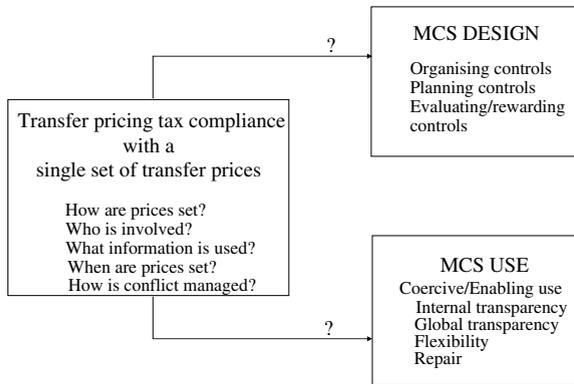


Fig. 1. The guiding framework.

of the organisational transfer pricing and MCS literatures.

#### *Organisational transfer pricing literature*

Management accounting and control studies started to recognize the importance of ‘processes’ and ‘dynamics’ under the influence of the organisational behaviour literature (Hopwood, 1983; Jones, 1985; Otley, 1980). Based on Lawrence and Lorsch (1969), Watson and Baumler (1975) were the first authors to stress the role of transfer pricing in increasing differentiation, as it allows decentralisation, and at the same time integrating the organisation. Later, Swieringa and Waterhouse (1982) demonstrated in theory that dynamics and processes, as well as the related pressures for organisational learning and adaptation, cannot be ignored when studying transfer pricing. These early studies influenced the frameworks of transfer pricing choice developed by Eccles (1983, 1985) and Spicer (1988). Eccles (1985) identified ‘strategy’ and the ‘administrative process’ as the main determinants of transfer pricing practices. Corporate strategy and unit strategies (for groups, divisions and individual products) both affect transfer pricing practices: ‘the relationship between strategy and transfer pricing policy is so intimate that it is nearly a tautology’ (Eccles, 1985, p. 9). Whereas ‘strategy’ determines what a company does, the ‘administrative process’ determines how it does it. Eccles (1985) distinguished

five administrative components<sup>5</sup> relevant for transfer pricing: (1) how the transfer price is set (from pure negotiation to established corporate rules and procedures), (2) the individuals involved (different levels of general, financial, and other managers), (3) what information is used (data on costs, external and/or internal transactions), (4) when transfer prices are set (how frequently and under what conditions they are changed), and (5) how conflict is managed (what conflict resolution mechanisms are used and who is involved). It is these five elements that will guide our description of how the MNE under investigation approaches transfer pricing tax compliance. Spicer (1988) established a positive organisational theory of the transfer pricing process building upon Watson and Baumler (1975) and transaction cost economics (Williamson, 1979). Empirical tests and refinements of his theory are situated in a domestic setting (Colbert & Spicer, 1995; Van der Meer-Kooistra, 1994) but despite their significance for the transfer pricing literature, these studies offer little on the internal organisation and management of MNEs,<sup>6</sup> which is the focus of the current study.

#### *Management control system literature*

The MCS literature studies how managers, while pursuing their personal goals, can be motivated to contribute to overall organisational goals (Anthony, 1988; Anthony & Govindarajan, 1995; Berry, Broadbent, & Otley, 1995). Transfer pricing should provide economic information that favours goal congruence and have positive motivational consequences for measuring and evaluating divisional managers’ performance (Grabski, 1985; Kim & Mauborgne, 1996; Simons, 2000; Watson & Baumler, 1975). We have chosen to adopt the

<sup>5</sup> The administrative process is also affected by management style, company culture, technological and market characteristics of the products and general business solutions (Eccles, 1985).

<sup>6</sup> Most of the organisational behaviour transfer pricing studies have a domestic (uni-national) focus, e.g. the agency theory approach by Harris et al. (1982), the industrial organisational approach by Holmstrom and Tirole (1991) and the contingency theory approach by Borkowski (1990).

framework of [Chow et al. \(1999\)](#) to analyse the MCS of the case company because it incorporates the major management control functions – ‘organising’, ‘planning’, and ‘evaluating and rewarding’ – in an integrated manner. Organising controls, to begin with, pay attention to ‘decentralisation’ and ‘structuring of activities’. Decentralisation is the extent to which decision making responsibility is delegated to lower levels in a vertical hierarchy. Structuring of activities, on the other hand, refers to the existence of written policies, rules, standardised procedures and manuals which specify how to and, sometimes, how not to, perform activities ([Merchant, 1985](#); [Rockness & Shields, 1984](#)). Next, planning controls contain ‘participative budgeting’ and ‘standard tightness’. Participative budgeting is the extent to which subordinates contribute to the development and selection of the performance plan which their superiors will hold them responsible for achieving ([Shields & Young, 1993](#)). Standard tightness stands for the ex ante probability that a manager can attain the plan ([Chow, 1983](#); [Merchant & Manzoni, 1989](#)). Evaluating and rewarding controls, finally, focus on the following three aspects: ‘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 managers’ performance evaluations are subject to factors beyond their control ([Demski, 1976](#); [Merchant, 1989](#)). Performance contingent financial rewards refer to the extent that financial compensation is determined by comparing budgeted to actual performance ([Demski & Feltham, 1978](#); [Waller & Chow, 1985](#)). Our initial concern is whether transfer pricing tax compliance has an influence on these components of MCS design. This then allows an evaluation of whether transfer pricing tax compliance influences the use made of the MCS.

To address MCS use we apply [Adler and Borys’ \(1996\)](#) concepts of ‘enabling’ versus ‘coercive’ bureaucracies, which – as [Ahrens and Chapman \(2004\)](#) demonstrate – allows the use of controls simultaneously strengthening mechanistic elements of organisation and enhancing organic patterns of

communication to be captured ([Chapman, 1998](#); [Dent, 1987](#); [Simons, 1990](#)). Coercive use of the MCS refers to extensive centralisation and pre-planning, 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, 2004](#)). ‘Internal transparency’ refers 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. 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. Finally, allowing managers to ‘flexibly’ deal with emerging contingencies in ways that fit both local and central agendas is a necessary condition for enabling MCS use.

## Research method

For the design and analysis of the in-depth case study we relied on [Yin \(2003\)](#), [Miles and Huberman \(1998\)](#) and [Eisenhardt \(1989\)](#). Our case study protocol included the selection criteria of the research site, the interview protocol and the analysis protocol. Theoretical sampling ([Eisenhardt, 1989](#)) guided the selection process of the case company, consisting of two stages. First, we undertook a preliminary study to select a group of potential case companies, to refine the research question and to strengthen the set-up of the research design and analysis protocol.<sup>7</sup> One selection criterion was size, since we experienced in 1998 that medium-sized and smaller MNEs had limited awareness

<sup>7</sup> The preliminary study also allowed the main researcher to refine her skills in interviewing managers on this topic and provided the first material to be analysed using NUD\*IST software. Consequently, the coding scheme could be refined before inserting the main data into NUD\*IST.

of the fiscal aspects of transfer pricing. We targeted established MNEs, often leaders from a market or technological point of view, characterised by a large number of cross-border transactions. Other criteria were sector, financial health, and apparent lack of problems with the tax authorities. By approaching companies belonging to different sectors we could avoid the problem of comparison with direct competitors and increase the possibility of access. Financially healthy MNEs, as reflected in company annual reports for the prior 10 years, were identified. 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. We selected four companies and interviewed key headquarter informants. The second stage consisted in selecting one 'best practice' company out of the four original MNEs. A mature company was preferred because of our focus on its transfer pricing history. To capture the influence of the most detailed transfer pricing rules, we needed a company with headquarters or subsidiaries in the US. In addition, we selected a typical case in the sense that the MNE used one set of transfer pricing books (Baldenius et al., 2004; Ernst & Young, 2003). The focus is on the transfer pricing policy of products<sup>8</sup> to limit the scope of the paper, analogously with Colbert and Spicer's (1995) domestic study of the transfers of semiconductor components. A final criterion was the degree of access to different managerial levels: the selected MNE allowed us to visit or phone its managers at any time.

'An emphasis on situational details unfolding over time allows qualitative research to describe processes' (Gephart, 2004, p. 455). To reach this goal, we extensively searched archival documents covering the period 1993–2001 (see Table 1). In addition, between 1999 and 2002, we interviewed 23 managers at different levels in the organisation

and involved transfer pricing experts for a total of 92.5 interview hours (see Table 2). Several managers were contacted regularly, especially the tax directors, the product division controller and one of the SBU controllers. The interview protocol, containing open-ended questions based on the literature,<sup>9</sup> guided the semistructured interviews. Participants were free to answer only those questions that they felt to be relevant to the issue. The interviewees commented on their situation and all of them spontaneously compared their current situation to the past.

For the analysis we used event listings, also called time-ordered matrices, to capture the dynamics and processes in the case (Miles & Huberman, 1998). These matrices were also used as the basis to verify the researchers' interpretation of the events in regular feedback interviews. We cross-validated the documents and oral transcripts by comparing the observations based on the documents with the observations provided by the interviewees to ensure data triangulation and construct validity (Miles & Huberman, 1998; Yin, 2003). As in Chow et al. (1999), the degree of triangulation was augmented by collecting information from different types of managers. Further, we discussed trends in the regulatory changes and the conclusions emerging from the case with external transfer pricing consultants and tax specialists. The qualitative data analysis package NUD\*IST supported the analysis: we coded complete interview transcripts and summaries of the archival documents (Miles & Huberman, 1998) in NUD\*IST. Apart from using the store-and-retrieve functions, we relied on NUD\*IST's various questioning functions to draw the time-ordered matrices.

### Research site

This section describes the research site – the Semiconductor Product Division (SPD) within

<sup>8</sup> Transfer pricing issues are so complex that our analysis can only be successful if the transfers of products, services and intangibles are dealt with separately. Still, the provision of services between departments will be mentioned for completeness where appropriate.

<sup>9</sup> To capture processes and dynamics, we asked our informants about the development, implementation and adaptation of the transfer pricing policy. The MCS aspects were dealt with on the basis of Chow et al. (1999, Appendix).

Table 1

Types of archival documents used for analysis (111 documents used, prepared between December 1993 and July 2001)

Documents		
Type	MNE document	External document
Organisation charts	Internal	
Flow charts of logistics chain	Internal	
Annual report		Published information
Company description		Published in annual report
MNE website		Public information
Official transfer pricing documents	Internal	Confidential: only for tax authorities
Memoranda on transfer pricing		Prepared for tax regulatory bodies
Transfer pricing price models	Internal/confidential	
Price calculations	Internal excel file	
Administrative transfer pricing instructions	Internal/confidential	
Memos	Internal	
Minutes of meeting	Internal	
Internal letters	Internal	
Discussion notes	Internal	
Emails	Internal	
Emails: follow-up on interviews		Sent to the researcher
Internal memoranda	Internal/confidential	
Faxes	Internal	
BSC of subunit	Internal	
Performance evaluation of plant	Internal	
Target allocation schemes	Internal/confidential	
Bonus agreements	Internal/confidential	
Performance appraisals	Internal	
Slide shows	Internal	
Market and business outlook		From industry association
Slide show		From consultants
Tax memorandum		From enterprises association

the selected MNE – including its product flow and tax compliant transfer pricing policy in 2001.

#### *The semiconductor product division (SPD)*

The selected MNE is a large, industrial multinational with production facilities and sales organisations in more than 60 countries, employing over 150,000 people. From the MNE's product divisions, we selected SPD as our research site because it is characterised by the most complex production chain and the most global operations. SPD belongs to the electronic system market, in which technology requires significant capital investments. It works in partnership with its – increasingly global – customers to develop and provide standard products as well as complex system applications. In 2001, SPD was organised in a matrix structure, identifying functions along the

value chain (production, assembly, testing and sales) versus Strategic Business Units (SBUs) and Business Lines (BLs) responsible for product availability and development aimed at different customers and markets.

Fig. 2 presents the value chain for semiconductors in 2001. Production was the most capital intensive part of the chain and SPD had production sites in the US and Europe. Electronic circuits were assembled and tested in cheap labour countries in Asia and also, but to a lesser extent, in the production plants in the US and Europe. Testing could take place in the assembly plants or in a separate testing plant at a different location. The finished goods were sent to regional sales organisations representing SPD in the different continents (North America, Europe and Asia). Regional marketing was based on SBU and BL dimensions. The regional sales organisations managed the physical

Table 2  
Summary of interview data used for analysis

Interviews		
Type	Number of interview hours	Number of people interviewed
<i>Preliminary interviews</i>	9	7
<i>In-depth case interviews</i>	46.5 – 2.5 (preliminary hours) = 44	23
At corporate level		3 (Also involved in preliminary round)
Involving Tax director and Tax managers		
Quality director		1
Internal auditor for SPD		1
At product division level		
Involving controller		1
Plant controllers		2
Industrial planner		1
General plant managers		2
At SBU level		
Involving controllers		2
At BL level		
Involving general managers		2
Controller		4
Logistics manager		1
<i>Outside transfer pricing experts</i>	25.5	16
<i>Follow-up inside MNE</i>	8	8
<i>Follow-up outside MNE</i>	6	16
<b>Total</b>	<b>92.5</b>	<b>67</b>

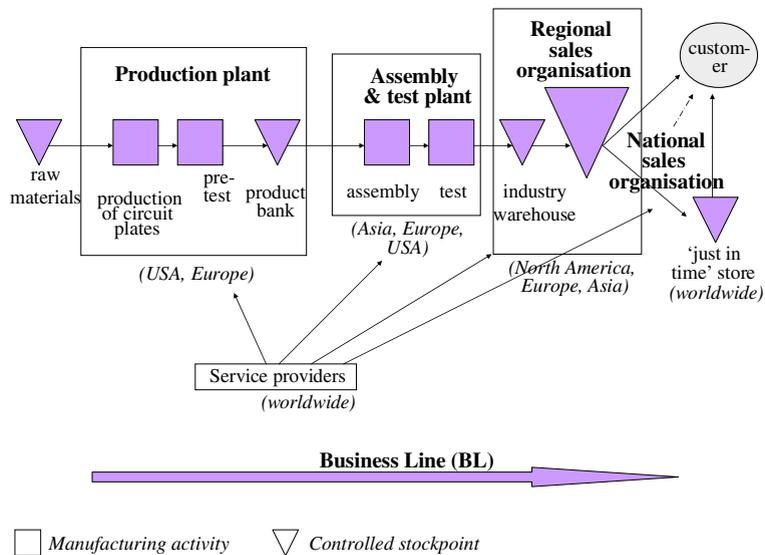


Fig. 2. The value chain within SPD in 2001.

distribution processes and were responsible for commercial inventories and related obsolescence

risks. They formed the connection between the production and commercial environments. A national

sales organisation was the contact point of SPD in the customer's country. Unlike the regional sales organisations, national sales organisations did not store or distribute stocks. A number of service providers located worldwide (such as the Corporate Centre, Technical Support Centres and Application Laboratories) took care of all activities that were not directly related to the goods flow.

The semiconductors-in-progress, physically travelling from one functional (operational or commercial) unit to the other and thereby crossing both organisational and fiscal borders, were monitored and steered by the BLs. While the BL general manager was located in one country, every BL was active on an international scale and made use of SPD factories and departments all over the world. BLs undertook joint marketing initiatives with the sales organisations. The BLs also incorporated product knowledge and developed new products, often with support from the laboratories. BLs with similar products were grouped as SBUs. SBUs formulated product groups' worldwide strategies and allocated assets and resources in line with the targets agreed by product division management. They also communicated with key executives of strategic customers and suppliers.

#### *Semiconductors' transfer pricing policy in 2001*

In 2001, SPD used four types of transfer prices. Since the number of production steps undertaken in a particular plant varied, a price was calculated for every separate step. The transfer price between operational units was the sum of the prices for all steps already undertaken. 'Production' prices consisted of budgeted costs increased with a uniform, fixed profit uplift. 'Assembly' and 'test' prices included a uniform, fixed, but lower, profit mark-up on top of the budgeted costs. The transfer price between an assembly and test facility and a regional sales organisation was the aggregate of production, assembly and test costs plus profit mark-ups. The transfer price between regional and national sales organisations was the resale price minus a uniform, fixed profit margin. 'Resale' transfer prices used the lowest profit margin percentage.

The three percentages were motivated by the functional analysis applied to the interacting parties. Fig. 3 shows the product transfer prices.

Budgeted costs were used as the cost basis to encourage efficiency and cost control at the production and assembly levels. The corporate controller at SPD stressed that

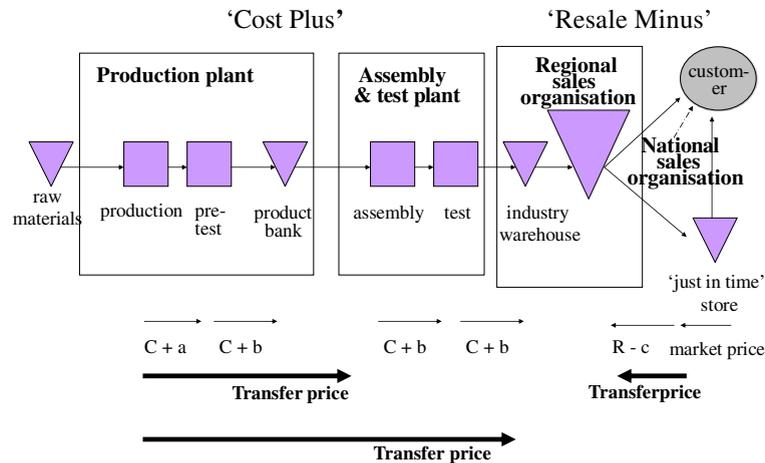
'using actual costs (when determining transfer prices) would allow the supplying divisions to pass along cost inefficiencies to the buying party' (August 1999).

In order to meet the tax authorities' requirement to use actual costs, an explicitly documented adjustment was made at the end of the year. Similarly, cost-plus transfer prices were used to account for the delivery of services, again applying a fixed profit mark-up. Unlike the uniform percentages related to the product stream, the mark-up percentages for calculating the services price would differ for each BL, reflecting its own specific use of the services available.

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

#### **Dynamic analysis**

SPD's tax compliant transfer pricing policy emerged over a number of years. We trace its dynamic influence on the MCS for the period 1993–2001, following the framework shown in Fig. 1. However, since we cannot ignore the company's strategic focus (Eccles, 1985), we will first



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)

Fig. 3. Product transfer pricing in SPD in 2001.

briefly report on our case MNE’s developments in strategy and organisation design.

*Strategy and organisation design*

At MNE corporate level, two strategic phases can be distinguished. In the period 1993–98 the main strategic goal was to recover the MNE’s profitability. In 1993 corporate management significantly simplified the product costing and budgeting system and insisted on its ‘consistent application in all product divisions’ (SPD controllers’ meeting, November 1995). The aim was to increase understanding of the costing system so that cost-reducing suggestions might emerge at all levels.<sup>10</sup> In the period 1998–2001 creating shareholder value became the priority of any decision-making. In 1998 corporate management implemented a version of economic value added

(EVA) to measure the financial performance of all product divisions. In that year corporate management also gave the Corporate Quality department the responsibility to develop the balanced score card (BSC) and to introduce it in all product divisions.

SPD adopted the simplified costing and budgeting system in 1993 and further introduced strategic benchmarking, which was to be applied strictly. The corporate focus on clear and transparent systems was among the driving factors to gradually restructure SPD towards a matrix organisation between 1996 and 2001. Along the product axis of the matrix, BLs were regrouped into SBUs according to the similarity of their products and technological processes. Along the functional axis of the matrix, operational and sales activities were increasingly centralised. In 1996 SPD established a coordinating SBU Assembly and Testing to manage the assembly and test plants, and from 1998 on, it allocated an increasing number of production plants to the SBU Production. While plants used to be part of a particular BL, most of them were decoupled from that BL by 2000. In the same

<sup>10</sup> This strategic focus on simplicity and traceability was reinforced by the increasing need for transparency for transfer pricing tax compliance, promoted by Corporate Tax, as explained in the section on Transfer Pricing Tax Compliance.

Table 3  
Dynamics in strategy and organisation design

Strategic focus	1993–98	1998–2001
Corporate level	Recovery of profitability: simplified product costing and budgeting system	Creating shareholder value: introduction of EVA and BSC
Product division level: specific for SPD	Implementing new costing/budgeting system, introduction of strategic benchmarks  1996–2001: Restructuring towards matrix form Product axis: SBUs with similar BLs Functional axis: 1996: SBU Assembly and Testing 1998: SBU Production 2000: Restructuring of sales organisations	1998: Implementation of EVA and BSC

year the regional sales organisations were regrouped under a global sales organisation and organised into customer-line segments (automotive, consumer, etc.). By July 2001 the organisational restructuring of SPD had been completed. The strategic dynamics are summarised in Table 3.

#### *Transfer pricing tax compliance*

By 1993 the Corporate Tax department had become aware of US initiatives to strengthen transfer pricing regulations. 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 Tax’ (Corporate Tax director, November 2000).

Corporate Tax’s main concern was the potential incurrence of economic double taxation (internal letter, December 1993). To avoid any misunderstanding by the tax authorities, Corporate Tax urged the product divisions to clearly document that their transfer prices respected the arm’s length principle and related detailed tax rules:

‘...Such a transfer pricing document needs to be provided by the business because product divisions like semiconductors operate in

an extremely complex environment’ (Corporate Tax director, November 1999).

Over the period 1993–2001 Corporate Tax continued to educate managers at all organisational levels about the importance of using fiscally acceptable transfer prices and clear and contemporaneous documentation. Additionally, they introduced internal audits to monitor the correct application of the formal transfer pricing policy (minutes meeting, June 1995; SPD internal auditor, October 2000).

For SPD transfer pricing was crucial due to the global character of its activities. SPD developed its first documented transfer pricing policy by providing short answers to Corporate Tax’s information requests (Finance and Accounting department letter, December 1993). The resulting four-page document included a rough functional analysis (internal memos, September 1994). Corporate Tax encouraged the setting up of a SPD Transfer Pricing Workgroup in 1995, that aimed at revising the transfer pricing policy in terms of its consistency throughout the product division and at drafting a transfer pricing document to be used for fiscal compliance (minutes Workgroup meeting April 1995, May 1995).

*Who was involved?* The Workgroup consisted of nine members: four financial managers, two Corporate Tax managers, one BL manager, one plant manager and one SPD legal department manager (minutes Workgroup meeting, May 1995). However, other managers at all levels were involved in the transfer prices revision discussion: SPD’s

management team, corporate internal auditors, controllers and fiscal managers from various countries, plant managers and controllers, BL managers and controllers, SBU managers, controllers from the Chief Financial Officer (CFO) office and from the Chief Operations Officer (COO) office, and regional sales managers (internal memo, 1995; emails, September 1995; faxes, June, September, October 1995).

*How were prices set?* Existing transfer pricing practice, based on the physical flow of the products and services, formed the foundation of the revised policy. SPD, however, wanted to improve transparency and consistency and in this way be able to better justify the policy to the tax authorities. The Workgroup introduced a number of uniform and unambiguous formulas to be applied universally: the same transfer pricing method was used for all semiconductors-in-progress at the same stage of production when crossing the borders of their organisational units, wherever these were located geographically. For all manufacturing activities a transfer price based on budgeted costs plus the same fixed profit uplift was applied, while the national sales organisations paid the regional sales organisations their sales price minus a fixed, predetermined profit margin. Adjustments were not allowed other than under exceptional circumstances and the possibility of price negotiations was eliminated (minutes Workgroup meeting, June 1995; notes, 1995; memo, March 1996; emails, 1995, 1996; administrative instruction, July 1999):

‘SPD 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’ (SPD Vice president/SBU controller, March 2001).

*Which information was used?* The transfer prices were based on budgeted costs for MCS reasons and adjusted to actual costs at year-end in line with the fiscal rules (minutes Workgroup meeting, June 1995). Cost data was involved, together with available internal and external comparables (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. To fulfil the IRS’ comparables requirements, transfer prices were 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).

*When were prices set?* In practice, SPD calculated transfer prices once a year. Interim revisions were possible after approval by SPD’s price board, but would only be implemented if there were substantial and external reasons like currency swings or changed purchase prices (controllers’ conference, 1996; memo and emails, March 1996):

‘In case of significantly different market prices, it is possible to change prices during the year. However this has never been done, since our model tries to track long-term evolutions’ (a COO office controller, December 2000).

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

‘There are hardly any changes in the year in order to avoid confusion’ (a plant general manager, July 2001).

*How was conflict managed?* When conflict arose, 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’ (October 2000).

Corporate Tax requested SPD’s Finance and Accounting department to implement a ‘key document retention policy’:

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

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

‘At that level every step is tracked, especially at production plant and assembly and test level. So more at the functional level, and less at BL level since they do not receive real invoices. Although it is a steering mechanism, 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 official transfer pricing policy’ (a SBU controller, October 2000).

By the end of 1995 SPD’s transfer pricing document consisted of 21 pages,<sup>11</sup> published by Corporate Tax in 1996 as a part of the enterprise-wide Transfer Pricing document. External consultants checked the document (as well as later versions) and provided more detailed evidence of comparables. Moreover, in the following years SPD management continued to improve the transfer pricing policy’s consistency. While the 1995 Workgroup had conducted a detailed functional analysis (included in the Transfer Pricing document), the CFO noticed in 1999 that

‘recent developments in the semiconductor environment have quite an impact on the risk factors that had been set and defined earlier. 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 the risk factors in the production plants have developed differently from the assembly and testing area. For that reason we need to differentiate the profit uplift, providing each of the two sectors with their own risk-based profit uplift’ (internal letter CFO, February 1999).

The review of the functional profiles highlighted that production required increasingly higher capital investments than the assembly and test processes. The resulting differentiation of the mark-ups favouring production was included in the 1999 transfer pricing document (February 1999).

Table 4 summarises the dynamics in the SPD’s transfer pricing tax compliance. We conclude that managers at all levels were involved in revising the transfer pricing policy and that all were held responsible for compliance and implementation. In addition, an internal audit team was appointed to monitor application of the transfer pricing policy. The dynamics in MCS design and use are now examined over the time period in which the initiatives with respect to transfer pricing tax compliance took place.

<sup>11</sup> The contents of the 1996 and 1999 Transfer Pricing document are summarised in Table 4.

Table 4  
Dynamics in transfer pricing fiscal compliance

Initiative by Corporate Tax department	Reaction by SPD
1993: Request to all product divisions to document their transfer pricing policy for goods	1994: Prepared a four-page SPD transfer pricing document Contents: current transfer pricing methods in use, motivation, situation of regional and national sales organisations, conclusion
1995: Request to SPD to elaborate on the transfer pricing policy for goods	1995: Set up a SPD Transfer Pricing Workgroup with nine fixed members (from financial department, Corporate Tax Managers, BL manager, plant manager, SPD 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

#### *MCS design: organising controls*

Gradually, starting from 1993, SPD introduced a uniform and transparent transfer pricing policy under the impetus of the MNE's top management priority given to tax compliance. One of the major changes was that transfer pricing negotiations across the product division were no longer allowed because negotiated transfer prices were deemed incompatible with the arm's length principle (OECD, 1995). The Workgroup centralised and streamlined the existing policy of this large and complex product division, reformulating it as simply and uniformly as possible so it could be easily understood by SPD's own managers and by outsiders, especially the tax authorities. The overall simplification of the transfer pricing policy reinforced the trend set by the changes in corporate strategy since 1993 (minutes Workgroup meeting, June 1995). Not only the strategic objectives but also the tax compliance objectives benefited from the SPD's restructuring (1996–2001). Due to the creation of the SBU Assembly and Testing in 1996, a single, uniform transfer pricing policy could govern the transfers between this SBU and the regional sales organisations. Similarly, the setting up of the SBU Production in 1998 made the transfer pricing policy more transparent. In the same year SPD simplified the transfer pricing

model for the national sales organisations by making every country use an identical profit percentage. In sum, once the transfer pricing policy had been redesigned, involving SPD managers at all levels, transfer pricing was managed in an increasingly centralised way.

In terms of the 'structuring of activities', we notice how both corporate and product division management pressed for the strict adherence to the extensively documented transfer pricing policy: the uniform transfer pricing procedures had to be respected under all circumstances and internal auditors monitored their application. Deviations were only exceptionally allowed. Corporate Tax undertook the same role in the other product divisions to prepare an official, enterprise-wide transfer pricing document. Documentation of the functional analysis and data about comparables were crucial in order to justify the transfer price. The need for a functional analysis seems to have played an important role in the decision to restructure SPD's activities. By recognising the same functions, wherever they were located geographically, the same transfer pricing method could be applied. The transfer pricing document retention policy ensured that all relevant transfer pricing information was kept on a contemporaneous basis. Table 5 summarises the events in terms of the MCS.

Table 5  
Dynamics in the MCS

Tax compliance	MCS
<i>Organising controls</i>	
Since 1993:	1993–94: Implementation of a central, simplified budgeting and costing system in SPD
Need for a consistent and transparent transfer pricing policy as the best defence against the tax authorities worldwide, involving clear transfer pricing procedures and an understandable document for tax compliance	1994: First SPD transfer pricing document 1995: Internal audit team involved to follow up on the implementation of the revised transfer pricing policy 1996: Central design of uniform assembly and test prices 1996: Second SPD transfer pricing document, containing an extensive functional analysis 1998: Central design of uniform production prices 1999: Third SPD transfer pricing document, with differentiated uplifts for production versus assembly and testing
<i>Planning controls</i>	
1993: Need for a consistent and transparent transfer pricing policy as the best defence against the tax authorities worldwide	1994: Implementation of simplified costing and budgeting system in SPD, formally designed to involve both a bottom-up and top-down process
1995: Need for external benchmarks, i.e. comparables, to motivate the arm's length character of the transfer prices	1994: Introduction of internal benchmarking: increasingly top-down approach 1995: Introduction of external benchmarking: increasingly top-down approach 1996: Same targets imposed for all assembly and test plants 1998: Same targets imposed for all production plants
<i>Evaluating and rewarding controls</i>	
1993: Corporate Tax department started to put pressure on the product divisions to adopt a uniform, consistently applied transfer pricing policy	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 were determined by managers from all hierarchical levels 1998: Introduction of bonus system in Europe (already existing in US and Asia). No bonus was paid if financial BSC targets were not attained. However, if managers could give a reasonable explanation for failing to meet the non-financial BSC targets, a (part of the) bonus could still be paid 2000: Review of the BSC 2001: Product division management was 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

### *MCS design: planning controls*

SPD calculated transfer prices on the basis of budgeted costs, using the simplified budgeting and costing system adopted in 1993. This new system enabled strategic benchmarking to become an integral part of the budgeting process since 1994 (controllers' meeting, November 1995; Annual Report, 1998). While internal benchmarking was introduced for strategic reasons, the introduction of external benchmarking was also driven by the

need to provide third party references to prove the arm's length character of the transfer prices (a BL controller, October 2000; IRS, 1994). One of the reasons to create separate SBUs for Production and for Assembly and Testing was that it helped SPD management to apply internal and external benchmarking in the operational environment. Moreover, where external benchmarks were available, the consistent application of the uniform transfer pricing formulas resulted in the removal of any anomaly affecting the comparability of

performance of similar organisational units, both within and outside SPD. In other words SPD could apply the same targets to similar plants. The strict benchmarking exercise encouraged the plants to aim at ‘best in class’ prices (1999 Transfer Pricing document; a BL site controller, March 2001). While the budgeting process<sup>12</sup> involved two-way communications (a BL controller, October 2000), interviewees mentioned that

‘benchmarking and top-down considerations receive more weight than bottom-up considerations and lower-level managers do not experience real participation’ (a BL HR manager, April 2001).

This observation can only be fully understood in the light of the importance attached to strategic benchmarking (an SBU controller, October 2000). The targets were ‘set up to be SMART: Specific, Measurable, Applicable, Realistic and Time related’ (a plant general manager, September 2001). Operational managers reported that

‘the uniform, benchmarked targets can be easily attained by the older and more mature plants, but are harder to attain for the younger and smaller plants’ (controller SBU Assembly and Testing, December 2000).

The facts are summarised in Table 5: we observe an increased emphasis on uniform benchmarking targets, restricting lower level manager participation in setting targets or changing benchmarks. Standard tightness, especially of financial targets, was experienced differently by SPD managers in different functions and plants.

#### *MCS design: evaluating and rewarding controls*

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

ation in SPD. Top management at SPD was responsible for determining the financial and customer-related performance indicators, while the competence and process measures were determined by the lower level managers (Corporate Quality director, April 2001). Targets could be formulated at site or departmental level and could be either individually or group based, in line with the intentions of the BSC. Despite the introduction of the BSC, interviewees stressed that overall 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).

Typically EVA, sometimes replaced by earnings before interest and tax (EBIT), was the single most important bonus target. EVA was calculated by applying a number of corrections to EBIT, particularly for working capital and, notably, tax. Both corrections were determined centrally and could not be influenced locally by the managers under evaluation. Take as an example the bonus scheme of one BL’s management team. In 2000, 25% of the total bonus for its managers was attributed to EVA. Cash flow, stocks and sales were followed up and taken into account during the evaluation of EVA. The non-financial measures each comprised 5%, 10% or 15% of the maximum bonus. For this BL, three customer-related measures each counted for 5%, as well as three time-to-market related process measures for three key projects. Additional process and competence measures were in place, each counting for 5–15% of the maximum bonus (BL bonus matrix, 2000). The BSC clearly 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).

<sup>12</sup> By the time the BSC was introduced, the emphasis on traditional annual budgeting was reduced in favour of rolling forecasts and external benchmarking (Annual Report, 1998; Corporate Quality director, April 2001).

For production, assembly and testing, the budgeted, benchmarked transfer prices – whilst included in the EBIT, cash flow and EVA measures – could only be improved by reducing actual costs. A plant manager 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 program... Multiply shipments by the production transfer price, deduct costs and you get EBIT’ (September 2001).

Plant managers, knowing the transfer price, could estimate the EBIT for each load, with EVA being equal to that EBIT estimate less the centrally determined weighted average cost of capital multiplied by inventory and deducting the tax charge. Hence, productivity, shipments and other non-financials relating to process and competence became primary controllable items for plant managers. The main focus was to reduce costs. Similarly, the national sales organisations recognised that the financial targets could only be outperformed by increasing sales volumes:

‘...how the national sales organisations are evaluated: sales and sales volume are important... It was different in the past: for years, the sales organisations were evaluated based on EBIT, which put pressure on the transfer pricing system. They would ask for lower transfer prices, so that their profit could be increased... This whole discussion has been stopped, and now every selling organisation gets a fixed profit percentage. This means that the confusion between the fiscal, local and global result has been solved, and that the sales organisations have no interest in manipulation anymore’ (SPD vice president/SBU controller, April 2001).

The fixed profit percentage embedded in the resale minus transfer price did not, however, distinguish between higher and lower margin products. SPD management 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. However, the consequence 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’ (SPD vice president/SBU controller, April 2001).

Despite the limited control that managers within SPD could exercise over the financial indicators, non-attainment resulted in not receiving the cash bonus award. By contrast, reasonable explanations of deviation in terms of non-financial targets would lead to a bonus being given (Bonus System manual, July 1998). The BSC and the performance contingent financial rewards scheme<sup>13</sup> were under continuous review. The Corporate Quality director commented on the BSC review in 2000 that

‘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’ (April 2001).

The overview of evaluating and rewarding controls, as summarised in Table 5, allows us to conclude that the introduction of the BSC and the related bonus matrix – with their greater recognition of non-financial performance indicators – counterbalanced the lack of control SPD managers exercised over transfer pricing.

<sup>13</sup> For the European sites, the bonus scheme had only been introduced in 1998.

### *Consequences for MCS use*

Interviewees at SBU and BL levels seemed to accept the high degree of centralisation and structuring of activities:

‘The central transfer pricing policy is important in the defence against 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 impact on management control was not regarded by all as an advantage:

‘Today, transfer pricing has mainly become a matter for the Finance and Accounting department. If you ask me, 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).

For the BLs and SBUs responsible for products worldwide, the combination of the rigid transfer prices and an emphasis on financial performance indicators meant that entrepreneurial initiatives had to be carefully considered. 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 (a BL controller, June 2001):

‘It is possible that a BL wants to participate in a 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 adjusting it’ (SPD vice president/SBU controller, March 2001).

Initiatives to open new markets, such as China, appeared financially unviable under the uniform transfer pricing policy, as one BL general manager illustrated:

‘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 marketeers would say: ‘the price is too low, we do not want this business’... from the business creation side they would take wrong decisions based on the internal price construction – this is because we have a uniform transfer pricing system, while we have a regional pricing structure for our final products’ (August 2001).

The BL could not flexibly adjust its transfer prices to support sales in China without a special request made to product division management. Entrepreneurship seemed discouraged because of the rigidity caused by the tax compliant transfer pricing policy.

During the early interviews, several people claimed that the 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, recognition of the dynamics of semiconductor market conditions leads to a different perspective. Between 1993 and 2001 the semiconductor market showed an overall growth trend but was at the same time cyclical with highly volatile growth rates (McClellan Report, 2001). The years 1999 and 2000 – our early interview period – were characterised by a surging world economy and a boom in the semiconductor market, with full utilisation of all SPD’s production units. By the end of 2000, however, demand for semiconductors started to drop and in 2001, the downturn of the cycle began to result in inventory adjustments,

overcapacity and the start of a global recession. SBUs and BLs<sup>14</sup> put pressure on the transfer pricing system: they argued with SPD top management to get lower transfer prices in order to meet targets and to survive the crisis.

‘The pressure to lower costs typically does not come from the sales force but from the BLs, who are under pressure to make more profit’ (a BL controller, September 2001).

Plants managers from their side started to fear that BLs would be tempted to accept chips at low prices from outside suppliers given the existing overcapacity. The recession put so much pressure on the transfer pricing system that SPD top management allowed a number of exceptional adjustments of the production transfer prices. However, in 2001 the market deteriorated further and top management took over all operational decisions to maintain capacity utilisation as far as possible. In addition, they suspended all bonuses in order to alleviate the pressures on the operational system and the MCS. One manager concluded that

‘SPD has recently incorporated a number of non-financial elements, although still the financial indicators are leading, which is especially clear in today’s downturn situation’ (a HR manager September 2001).

Overall, we see that tax compliance had a mixed influence on MCS use within SPD. In several respects, the implementation of MCS design changes can be viewed as enabling. The educating role of Corporate Tax in increasing SPD managerial awareness and the cross-section of managers involved in the Transfer Pricing Workgroup illustrate this: the terms and processes of intra-group trade were made very clear. With tax compliance being such an overriding priority for our case MNE during the period under study, internal and global transparency had become explicit goals of the transfer pricing policy. Once implemented, however, the scope for SPD managers to repair or to deal flexibly with changing market conditions

was extremely constrained. The uniform application and monitoring of the transfer pricing methods created the impression of totally programmable operations reinforced by extensive documentation. For every exception to the documented policy, product division management needed to give its approval. This included decisions concerning comparables or benchmarks, outsourcing and market initiatives. The tight codification of best practice routines and the pressure to stick to the written rules had come at the expense of flexibility and repair: in order to preserve the highest possible degree of transparency lower level managers were not allowed to deviate from the documented rules. The situation constrained managerial scope to innovate and improve effectiveness. At the BLs, initiatives could be stifled by the emphasis on financial measures. At the sales organisations, the evaluating and rewarding controls were being reassessed. Overall, the interviewees felt the coercive consequences of transfer pricing tax compliance to be stronger than the enabling forces induced.

### Development of the propositions

Based on the dynamic analysis of the single case study, we formulate four propositions predicting the consequences of tax compliant transfer pricing on the design and use of the MCS in other research contexts. Fig. 4 schematically depicts the propositions in the guiding framework.

#### *MCS design*

Tax compliance directly influenced centralisation and the structuring of activities within our single case study: from 1993 on, the degree of centralisation and documentation increased considerably through the role of headquarter tax and audit functions. In fact SPD’s central Workgroup, set up in 1995 to review the transfer pricing policy in accordance with the fiscal requirements, directly addressed the organising controls of the MCS. The detailed documentation requirements and procedures involved had to be uniformly applied across organisational units performing the same functions. We therefore predict that:

<sup>14</sup> BL managers were the entrepreneurs along the product axis but their autonomy to outsource was conditional on production and assembly and testing operating at full capacity.

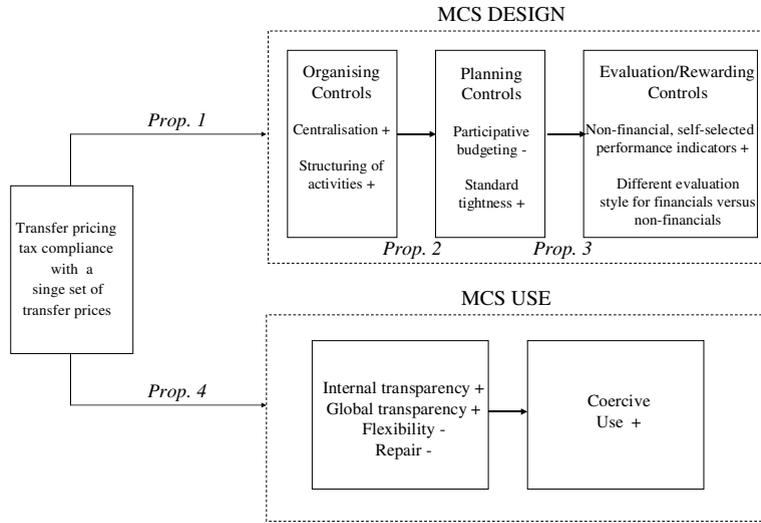


Fig. 4. Resulting propositions.

**Proposition 1.** *Adoption of a single tax compliant transfer pricing policy causes changes in an MNE’s organising controls identified by*

- 1a. *an increase in centralisation, and*
- 1b. *an increase in the structuring of activities.*

The developments in the organising controls influenced the planning controls: with increasingly centralised control, SPD management expected all similar functions undertaking similar risks to perform at similar levels determined by the internal and/or external benchmarks. The use of external comparables reflected competitors’ achievements and introduced challenging targets for internal operations to attain. Benchmarks became centrally determined and were rarely changed during the year. Confidence in these benchmarks gave planning a degree of certainty and simultaneously provided universal performance criteria. As a result, the need for participative budgeting lessened. Based on this analysis, Proposition 2 is formulated as follows:

**Proposition 2.** *Adoption of a single tax compliant transfer pricing policy causes subsequent changes in an MNE’s planning controls identified by*

- 2a. *an increased use of universally applied internal and external benchmarks, and*

- 2b. *a reduction in participation by lower manager levels in setting standards and targets.*

The effect of transfer pricing tax compliance on the organising and planning controls further influenced the evaluating and rewarding controls. Over the time period of this study, SPD managers’ control over non-financials appears to have increased whilst controllability over financials diminished. Product division management set the benchmarks for the financial targets and determined transfer prices as well as the capital charge and tax correction rates used to calculate EVA. Plant and sales organisation managers influenced cost and sales volume decisions respectively but within a centrally planned production schedule. Operational measures such as production yields, number of shipments, customer response times and sales by segment gained in importance as controllable lead indicators. The BSC formalised the prominence of these operational lead measures by including them under process and competence factors. The award of a cash bonus depended on strict attainment of the financials, but not of the non-financials: reasonable explanations of deviations from competence and process measures might still trigger a bonus. We therefore predict that:

**Proposition 3.** *Adoption of a single tax compliant transfer pricing policy causes subsequent changes in*

an MNE's evaluating and rewarding controls identified by

- 3a. *an increased recognition of self-selected, non-financial performance indicators, being tailored to individual subunits, and*
- 3b. *different evaluating and rewarding styles relating to financial and non-financial indicators.*

#### MCS use

Our study raises questions about the optimal balance between Ahrens and Chapman's (2004) dimensions of MCS use. The dynamic analysis demonstrates that tax compliance asymmetrically influenced the four dimensions: the priority placed upon internal and global transparency resulted in a considerable loss of flexibility and repair and finally in a more coercive use of the MCS. At the time of our study, the increase in bureaucracy and formalisation due to the contemporaneous tax compliance requirement limited local and lower managers' discretion to such a degree that their commercial flexibility and business creation facilities seemed jeopardised. So, the following proposition can be formulated:

**Proposition 4.** *Adoption of a single tax compliant transfer pricing policy causes an increase in the coercive use of an MNE's MCS, identified by*

- 4a. *an increase in internal and global transparency*
- 4b. *at the expense of flexibility and repair.*

#### Concluding discussion

Since the mid-1990s more and more countries have markedly strengthened their fiscal regulations pertaining to international transfer pricing. The 'political visibility' (Watts & Zimmerman, 1986) of the MNE under study made it a potential target for upcoming transfer pricing audits, especially in periods 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 set up its transfer pricing policy to shift all profits to the low tax countries – even if it was 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).

In contrast to earlier contingency studies, this transfer pricing investigation has benefited from a process view acknowledging the dynamic character of the influence of tax compliance on the MCS (Hopwood, 1983; Jones, 1985; Otley, 1980; Swieringa & Waterhouse, 1982). Time-ordered matrices (Miles & Huberman, 1998) have helped us to reliably summarise the chronological analysis of the case. SPD put in place a transparent tax compliant transfer pricing policy using a single set of transfer pricing methods and records for both management control and tax compliance purposes at the request of Corporate Tax and MNE headquarters management. We find that the process of transfer pricing tax compliance spread through the different levels of the organisation: SPD managers at all levels were involved in designing the tax compliant transfer pricing policy. Once the uniform policy was adopted, all managers were requested to comply and the consistent implementation of the policy was monitored by the internal audit team.

Our propositions express a time-ordered sequence of the impact of tax compliance on the components of MCS design. SPD management deliberately addressed the organising controls (Chow et al., 1999) by centralising and documenting the transfer pricing policy to respond to the strengthened tax regulations. In the longer run, the initial effect on the organising controls also affected the planning and evaluating and rewarding controls. 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 self-selected, non-financial performance measures. The reward and performance

evaluation system remained focused on the financials and distinguished attainment in terms of financial and non-financial measures. The impact on the use of the MCS was more subtle, suggesting that increases in transparency were counter-balanced by losses of flexibility due to the uniform transfer pricing policy, which needed to be consistently applied under all circumstances. Overall, a more coercive use of the MCS (Ahrens & Chapman, 2004) limited managerial discretion to improve innovation and effectiveness. As observed above, the case company's MCS did not immediately experience any negative effects from the single tax compliant transfer pricing policy and top management seemed to largely underestimate how strict adherence to the documented transfer pricing policy would affect MCS use. The strong reactions by lower level management, especially during the 2000–01 recession, however, emphasise the extent of the undesirable side-effects. We conclude that this delay is the major reason why corporate management of such a successful, mature MNE only started to consider these negatives at the end of our research period. It is clear that this situation reinforces the need for longitudinal examination to understand change in transfer pricing policies.

Eccles (1985, p. 256) recognised that 'pressures for uniformity in transfer pricing policies' are based on the advantages of administrative simplicity and concerns about fairness in a domestic environment. However, we find that in an international context the pressures for uniformity are increased by external tax requirements and have disadvantages for commercial entrepreneurship and managers' motivation. We emphasise this unexpected influence of tax compliance because of its broader political relevance: the constraining of managerial entrepreneurship was not anticipated by the OECD Member States. Instead, they stress that evaluation of the arm's length principle should always take into account a firm's commercial circumstances, which, just as in the case of independent trade, allows deviations from the general pricing policy if the firm wants to pursue a market penetration strategy<sup>15</sup>

(OECD, 1995). Our case study observations suggest that firms in the process of gaining tax compliance may be susceptible to losing a certain degree of flexibility to exploit fully new market opportunities. No earlier studies have investigated the consequences of the current tax authorities' approach towards transfer pricing for internal decision making, performance evaluation and managerial motivation (Eden, 1998; Hamaekers, 2001).

Finally, we want to stress that when researchers seek to understand MCS design and use in complex, modern-day MNEs, they need to take into consideration the priority that corporate management affords to tax compliance. Despite attempts to gain alternative explanations through negative case reasoning, our study proposes a refinement of the contingency literature in terms of how environmental factors influence the potentially active role of management accounting (Abernethy & Lillis, 1995; Ahrens & Chapman, 2004; Chapman, 1997; Chenhall, 2003; Fisher, 1995; Luft & Shields, 2003). Instead of enumerating the objectives of the transfer pricing policy and the factors influencing the methods used (Borkowski, 1992a, 1992b, 1996; Cravens & Shearon, 1996; Cravens, 1997; Emmanuel & Mehafdi, 1994; Tang, 1979), this study investigated the way fiscal regulations can influence the internal role of transfer pricing and the MCS to which it belongs. Our propositions suggest that the process of gaining tax compliance should be explicitly examined when researching the design and use of the MCS within MNEs.

With the aim of analytic generalisation (Scapens, 1990; Yin, 2003), we based our study on the analysis of one case company favouring the use of the same transfer pricing policy in daily business activities as the best defence against fiscal intrusion and enquiry. We cannot conclude that non-compliant transfer pricing policies interact with the design and use of the MCS in a different way, nor whether degrees of tax compliance are feasible or equally influential. The characteristics of the case clearly provide ways to extend this type of research. First, the propositions can be tested in other MNEs that use a single transfer pricing policy to pursue tax compliance and these may include less mature and established MNEs. Second, the adoption of tax compliance using a single

<sup>15</sup> A lower than arm's length transfer price allows a lower final product price to stimulate sales in a new environment.

transfer pricing policy appears to create a need for non-financial performance indicators at lower management levels, which may be appropriate with a compatible MCS design to evaluate and reward performance. Further, future work is needed to study more systematically the various advantages and disadvantages of adopting single transfer prices. Finally, the propositions can be tested for MNEs with more than one set of transfer pricing records. This focus may offer valuable insights to MNE relationships with tax authorities. For each investigation, observation over a sustained period of time seems essential if a rich understanding is to be obtained.

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