"ORGANISING COMPETITOR ANALYSIS SYSTEMS"

by

Sumantra GHOSHAL*
and
Eleanor WESTNEY**

N° 90/63/SM

- * Associate Professor of Business Policy, INSEAD, Boulevard de Constance, Fontainebleau, 77305 Cedex, France.
- ** M.I.T. Sloan School of Management, 50 Memorial Drive, MA 02139, U.S.A..

Printed at INSEAD Fontainebleau, France

ORGANIZING COMPETITOR ANALYSIS SYSTEMS

Sumantra Ghoshal

INSEAD
Boulevard de Constance
77305 Fontainebleau, France
Tel: (1) 6072-4000

D. Eleanor Westney
M.I.T. Sloan School of Management
50 Memorial Drive
MA 02139, USA
Tel: (617) 253-7998

ORGANIZING COMPETITOR ANALYSIS SYSTEMS

Abstract

Based on a detailed study of the competitor analysis (CA) systems in three large companies, this paper examines the assessments of the formal CA system by its members and its major users, the uses to which CA is put, and the organizational systems by which the function attempts to improve its contribution and strengthen its role.

In his influential 1980 book, Competitive Strategy, Michael Porter asserted the need for "sophisticated competitor analysis" in the modern corporation, and hence "the need for an organized mechanism -- some sort of competitor intelligence system -- to insure that the process is efficient." The growing complexity of the competitive environment of many industries during the 1980s convinced many top managers that they did indeed need more systematic analysis of their competitors, and during the 1980s many large corporations set up specialized competitor analysis systems. A 1985 survey of some of the Fortune 500 companies revealed that over a third of the companies sampled were spending over \$1 million a year on competitor analysis and had at least one individual devoted full time to the activity (Information Data Search, 1985). In the United States, a new professional forum called the Society of Competitor Intelligence Professionals held its first annual meeting in 1986, and its 1988 meeting attracted representatives from over 200 large corporations and over 40 specialist consulting organizations.

Many managers agreed in principle with the desirability of what one practicioner described as

"an organized competitor intelligence system [that] acts like an interlinked radar grid that constantly monitors competitor activity, filters the raw information picked up by external and internal sources, processes it for strategic significance, and efficiently communicates actionable intelligence to those who need it (Sammon, 1984: 71).

Yet however clearly the growing number of competitor analysis (CA) specialists articulated the model of the ideal system and however sophisticated the methodologies developed for gathering and analyzing competitor information, building the organizational systems for competitor analysis proved more difficult than its advocates had anticipated (Prescott and Smith, 1987: 411; Daft et al, 1988: 136). Nevertheless, the growing literature on competitor analysis has continued to focus on methodologies, rather than on illuminating the development of the organizational systems of competitor analysis. Research into the structures and processes of competitor analysis in the corporate context has been virtually non-existent. Yet precisely such research is necessary if we are to understand

where the main problems in developing a competitor analysis system lie: to what extent they are the consequence of inadequate methodologies (Amit et al, 1988: 432); inappropriate modes of dissemination (Daft et al, 1988: 136); inappropriate allocation of effort (Prescott and Smith, 1987); inadequate support from top management, as has been the case with other kinds of environmental scanning units (Lenz and Engledow, 1986a); or other kinds of structure and process problems.

This paper describes the competitor analysis systems in three large multinational corporations, how its problems and prospects are seen by those most closely involved in it and those served by it, and examines the organizational mechanisms developed to address those problems.

The Study

The study was conducted in three of the world's largest multinational companies, each in a different industry: General Motors, Eastman Kodak, and British Petroleum. These firms are neither typical, in the sense of being close to the mean of size and dispersion in their repective industries, nor longstanding exemplars of best practice in competitor analysis. However, both the high-level management commitment to developing systems to make these firms more responsive to their increasingly competitive business environments and their ability to generate the resources to develop the specialized formal competitor analysis systems recommended in the strategic literature cited above make them promising grounds for studying the development and operation of such systems.

Between January and July of 1986, we spent between four and six weeks full-time in each of these companies and conducted between 40 and 70 semi-structured interviews. There were three categories of interview respondents: those who had formal responsibility for competitor analysis, either full or part time (referred to in this paper as "analysts"); staff managers to whom analysts reported, who were themselves not users of the information ("managers of analysts"); and a subset of those whom each analysts or analysis unit identified as primary internal clients and users of competitor information ("clients"). In the three companies, we interviewed in total 73 analysts, 17 managers of analysts, and 63 clients.

The interviews with the analysts focused on sources of information (external and internal); how the information was processed, analysed, and

disseminated; interactions with users and perceptions of how the information was used; personal learning curves; problems encountered in the function: and anticipated future directions of development in the function. The interviews with the managers of analysts also covered perceptions of use. personal learning curves, assessments of problems, and anticipated future developments; in addition, they were asked about the evolution of the function and the criteria by which its performance was assessed. The interviews with clients focused on the array of sources to which they looked for competitor information and on the salience of the formal CA function in that array; perceived changes in the function over the preceding two years and anticipated future changes, in terms of information provided and information needs; and on how they personally used competitor information. An examination of the documents produced by the CA units supplemented the interviews and allowed us to ask clients how they evaluated specific outputs.

THE FORMAL STRUCTURE OF THE CA FUNCTION

Competitor Analysis in all three corporations involved a dispersed and interconnected system rather than a single CA unit. All three companies had a global business structure, with business group management level between the corporate and the SBU levels. Each of the companies had formal, multimember competitor analysis units at the corporate level, and additional units or specialized individual analysts at the group and most of the strategic business unit levels. CA was also formalized in different geographic units, although there was greater variation among country subsidiaries in the extent of formalization of CA than there was among the business units. In addition, there were other CA units linked to specific In all three firms, the corporate R&D organization had formalized competitor analysis in the areas of technology and product development, and in one company there were also formal CA positions in manufacturing. In all three companies, while some top managers were seen as more enthusiastic supporters of the competitor analysis function than others, there was apparently broad-based management support for the development of the function.2

At the corporate level, the CA unit had two mandates: to follow companies that were "corporate competitors" competing with the firm across

multiple lines of business, and to function as a "center of expertise," keeping abreast of the most effective and efficient tools of competitor analysis and disseminating them to analysts elsewhere in the organization. In the first role, the major clients were top corporate management, general managers in the groups and SBUs, and corporate planning staff. In the second role, the constitutents served were other competitor analysts throughout the company. Given that the former set of clients had much more prestige and power than the latter (and much more control over the allocation of resources to support the CA activity), there was a strong tendency to concentrate on the first mandate at the expense of the second.³

At the group level there was considerable variation even within each company. Some groups developed an active formal CA unit, while others decided to locate competitor analysis entirely within the SBUs. The choice seemed to be influenced primarily by the amount of planning and strategic decision-making carried out by group management and by the structure of competition. Where the SBUs had a high level of autonomy, the CA function at the group level was weak or even non-existent. And where there were few competitors that the SBUs had in common, there was little reason to maintain a group-level unit to integrate and share the information gathered by the SBU analysts. Where group-level CA activity had developed, its primary clients included SBU managers and planners as well as group-level general management and planners.

At the SBU level, CA focused on the companies (or divisions of companies) that competed in that particular business. Usually one individual carried the formal responsibility for CA, either on a full-time or part-time basis, although in each company there were a few SBUs where formal CA had not yet been created. The major clients were the SBU's general manager and its business planner(s), although in a few cases the analysts defined their clients more broadly to include line managers throughout the SBU and even (in two cases) sales people in the field.

The "clients" interviewed in the course of this study were therefore similar across the three companies: top corporate management, general managers of groups and SBUs, and the top-ranking strategic planner at each level.

In all three companies an overwhelming majority of clients asserted that understanding competitors was extremely important and growing in importance. Expressions such as "absolutely vital" and "you can't imagine not using it" were common. However, a majority of both the clients and the analysts perceived a significant gap between what was needed by the organization and what was currently being delivered by the company's competitor analysis system. With very few exceptions, however, there was general agreement that a formal system was necessary and that what was called for was improvement in the current system, rather than its abandonment.

Clients and analysts put forward an array of factors to explain the gap between expectations and performance.4 These are summarized in Table 1, which divides the factors into two categories: those internal to the competitor analysis system, and those external to it.

The similarities across the three companies in the factors cited in open-ended questions were striking. Among the client responses, twelve of the eighteen factors were cited in all three companies, three in two, and only three factors in a single company. There was less similarity among the analysts: eight of the nineteen factors were cited by respondents in all three companies, seven in two, and four in only one.

--- Table 1 about here ---

Clients and scanners agreed that there were problems to be resolved both within the scanning function and in the larger context in which it operated. But while analysts were more likely to emphasize the contextual problems they faced, for clients the balance was tilted towards problems within the function itself.

Factors External to the CA Function

The factors external to the CA function can be subdivided into factors within the rest of the corporation itself, and factors in the environment outside the firm. The latter, including potential legal constraints on obtaining useful competitor information and the existence of good alternative external sources (such as the business press or personal networks) were mentioned by only a small number of respondents. However, the factor cited by the largest number of analysts and the second largest number of clients concerned the organizational context of the function:

managerial culture, specifically the reluctance of managers to try to use staff-generated analysis in general or competitor analysis in particular. Included in this category were comments about traditions of ignoring competitors, because of a historical legacy of market leadership (in the words of one manager, "We believed that other firms had to pay attention to us"), and fears of anti-trust actions by the government. However, some comments were more general: for example, a tradition of "management by instinct." As one manager described it, "Some of these guys will look at the data, but it makes them uncomfortable; they like to fly by the seat of their pants." And several clients and analysts said that while there was a growing willingness to pay attention to "hard data," many managers (particularly those with an engineering or finance background) had trouble with "soft" data, by which they meant any information without numbers attached. As one client described it, "Managers need numbers they can move the organization with."

Clients and analysts shared a recognition of more specific information management problems within the organization that complicated the job of competitor analysis, although again, more analysts than clients perceived this as an important issue. More analysts than clients were concerned with information blockages in general in the organization; as one manager put it, "Information just doesn't move in this company." Information overload, a factor we expected to hear cited frequently, was mentioned by only one client and one analyst. But for the analysts, the most frequently cited general information management problem was the use of information, particularly that passed to the corporate level, to control other parts of the organization, a pattern which made it difficult for a function like CA to persuade SBUs and subunits to share information with the corporate CA unit or even with each other.

There were two additional context factors that loomed much larger for analysts than for clients: inadequate resources, and clients' failure to specify what they needed. Fifteen analysts mentioned resource constraints on their ability to develop their own skills and their capacity for meeting the diverse demands placed on them, but only two clients cited it. However, several other clients puzzled openly about what criteria should be used to allocate resources to specialized information tasks such as competitor

analysis, which could absorb as many resources as the company was willing to provide ("We could set up a group as big as the Batelle Institute"). Eight analysts (but only two clients) suggested that another significant problem was that potential users of competitor analysis did not themselves know what they really needed, and therefore did not provide direction for the CA function.

The analysts added two additional context factors not mentioned by any of the clients: a lack of information synergy across levels (that is, too little similarity between what corporate managers and division managers wanted), and the wide range of information needs within the company with the consequent difficulty of focusing scarce resources.

Factors Internal to the CA Function

The factors internal to the CA function itself, when put into the context of how the analysts and their managers described their activities, can be divided into three activity clusters. One centers on information handling, or "data management:" that is, activities such as acquiring, classifying, storing, retrieving, editing, verifying, aggregating, and distributing information — activities that involve handling the information but not attempting to derive a higher-order meaning from it. The second cluster is "analysis," which involves interpreting the data to understand or predict competitor behaviour. The third cluster or dimension, "implication," addresses the question of how the company could or should respond. Each set of activities involves distinctive but interrelated skills.

The problem cited by the highest proportion of clients belongs in the implication dimension: the lack of relevance of competitor analysis to their immediate needs. Managers put this in a variety of ways: "it has to make a difference to your bottom line;" "it has to demonstrate a real pay-off;" "it has to answer real questions." While nearly a third of the clients saw this as a major problem, fewer than 10% of the analysts mentioned it -- perhaps the biggest gap between the two groups in terms of what needs to be done to improve the CA systems of the companies. If this pattern is common in other companies as well, it is hardly surprising that some researchers have concluded that the key problem of formal competitor analysis is that it does not meet the needs of managers (e.g. Prescott and Smith, 1987: 411).

However, it is by no means the only problem, as we shall see below, and the problems lie as much in the concepts of "needs" and "use" as in the capacity of the CA function to deliver outputs.

The internal factor cited by the second largest number of clients also concerned implications: the lack of credibility of the analysts who provided the information and analysis on which the company would act if it were to draw the implications for action from the CA's outputs. The most frequently mentioned factor here was a relatively low level of line or product management experience among the analysts, so that some line managers had an a priori scepticism about their ability to understand and interpret competitor information. Two other factors were also mentioned: the fact that the analysts did not try to check their own outputs by doing post mortem analyses, and (more salient for the analysts) the high turnover in the function, which meant that clients did not have time to develop trust in individual analysts.

This lack of credibility affected analysis activities as well. It created an environment in which analysts felt it was less costly to avoid any interpretation or analysis than to risk making an incorrect interpretation. The following comment of an analyst is suggestive: "Personally, I'd rather make 25 predictions and have 20 of the right than make 3 and have them all right. But I'm not sure that attitude is shared by my company and they make it very embarrassing if you're wrong."

The need for more prediction and less description was one of three problems mentioned by more than fifteen percent of the clients. As one manager put it, "I don't want to know what the other guy did to me yesterday; I want to know what he is going to do to me tomorrow." Another was very similar: the tendency for the CA function to put out too much data and too little analysis. The third was the lack of appropriate methodologies; the most frequent example was obtaining disaggregated data on production costs, productivity, R&D efficiency, and so on. Clients often recognized that "sometimes we do not know how to generate these figures for our own company, let alone competitors," but felt that this constrained the CA function's ability to generate useful analyses. Clients wanted numbers, but they also wanted to understand (or at least trust) the analytical methodologies that produced them, and to be confident that these were

consistent, systematic, and rigorous.

One further problem in analysis was the difficulty of combining "hard" and "soft" data in the corporation in general —a tendency to uncouple the two, and in so doing to take the "hard" data (the numbers) out of context, thereby creating serious problems in interpretation. One example cited by several SBU analysts in one company concerned a report from an SBU marketing unit tracking sales on a new product. Production problems had plagued the launch, and SBU marketing staff regarded the fact that they had maintained market share against a competing new product as a triumph on the part of their field sales organization (and they provided supporting information on the production problems). However, the figures on sales were taken out of the report by a member of the corporate CA unit, and later used as an example of marketing inertia by corporate analysts unaware of the context.

In addition, several respondents cited too little continuity across outputs and too little ability to see the world from the competitor's point of view -- a tendency to answer the question, "What would we do if we were in their position?" rather than, "What are they likely to do?"

Data management factors were, not surprisingly, the most important internal factors for the analysts, although the concern was shared to a considerable degree by clients. For both groups, the factor most frequently cited was the inadequacy of information systems. In particular, the analysts felt that the problem of the "bulging filing cabinet" full of clippings and notes, and the consequent difficulty of retrieving information, cried out for technological solutions in storage and retrieval. And better access to external information services and help in identifying the most useful and efficient services were also included in the perception of what Information technology could do to improve the CA function.

Three other data management factors were cited: the need to improve acquisition of information from line managers within the organization; complaints that the same information was being recycled too many times; and (exclusively an analysts' concern) the fear that inadequate quality checks on the sources of information might be diminishing the quality of analysis and interpretation.

One encouraging aspect of these data is that both clients and analysts were aware that the problems of developing a more effective CA function

could not be attributed only to the function itself, and that significant contextual factors complicated its task. Indeed, competitor analysis was given support from top management precisely because it was seen as a potential change agent, helping to make the corporation more responsive to the competitive environment and changing management habits of information use. Such changes could not be expected to occur quickly or painlessly.

Perhaps the most important discrepancy between analyst and client perceptions on external factors concerned the constraints on resources. Competitor analysis has emerged at a time when most large U.S. companies are under severe pressure to "run lean" — to reduce the scale of staff functions and cut expenditures, particularly on personnel. Analysts and their managers realize that appealing to management for more resources is simply not a realistic option, and hence they are driven to try to make the best possible use of existing resources. This in part explains the great appeal of new information technology in the function: a system that would reduce the amount of time expended on data management would free up time for the analysis which is increasingly the focus of client demands.

However, while it is not surprising that analysts should be more concerned with data management issues than clients, the analysts' focus on data management problems at the expense of analysis issues (compared to the concerns of the clients) is disturbing, although understandable. Many analysts told us that they were frustrated by spending most of their time on data management, especially gathering information. They felt that freeing up more time for analysis by finding solutions to the data problems would solve many of the function's problems in meeting the needs of its clients. But the distrust of CA methodologies exhibited by many clients suggest that the problems on analysis are more extensive than simply misallocation of The most problematic aspect is the gap in the perception of the relevance of CA outputs to action and use. This indicates both low levels of feedback between clients and analysts, and a lack of clarity over how far the CA function should extend its value-adding activities into the implication dimension. These issues are addressed below; the section immediately following concentrates on the problem of use.

ORGANIZATIONAL USES OF COMPETITOR ANALYSIS
Our own findings above and the existing literature on environmental

scanning systems in general indicates that an ongoing challenge for those in scanning positions is to produce information that is seen as useful by managers (Lenz and Engledow, 1986). "Useful" has customarily been defined by researchers as information that is used directly in decision-making, either in the context of the strategic planning process or in operational and tactical decision-making by managers (Prescott and Smith, 1987).

We began the research with the same strong focus on the contribution of formal competitor analysis to strategic, operational, and tactical decision-making, and therefore, in all our interviews with clients, we asked the following question:

"Although clearly an increasing amount of competitor information is being gathered in this company, we are encountering some difficulty in finding out how it is actually used. Can you give us an example or two from your recent experience in which competitor analysis played a particularly important role?"

The sceptical tone of the question was designed to push respondents to think of concrete examples, particularly because of a pervasive contradiction observed in an earlier study: while managers often say that environmental intelligence is extremely important for their firms and for their own jobs, they experience considerable difficulty in identifying specific instances of their own use of such intelligence (Ghoshal and Kim, 1986).

Responses to this question yielded 63 cases of how CA had been used. Analysis of these suggested that it was inappropriate to look only to specific decisions for the use of CA. In fact, the cases pointed to six different functions served by CA in organizations. In addition to decision-making by line management and strategic planning, which have been the focus of most investigations and normative prescriptions in the literature (e.g. Puld, 1985), we could identify four additional ways in which CA can benefit the organization: sensitization, legitimation, benchmarking, and inspiration (these are described and illustrated in the following pages). Table 2 identifies the number of cases we could classify into each of these six uses, and also shows, for each use, the number of cases where the information was obtained by the user from the formal CA function of the organization and those where the information was obtained from other sources.

In all three companies, the CA function was set up in part because of concerns that the knowledge of the extent of the competitive threat faced by the company was not adequately shared throughout the company, even by upper management. The function therefore derived its initial visibility and legitimacy by making people aware that the company faced significant and formidable competitors to whom it must respond, and in some cases by changing the definition of the most significant competitor or of the most crucial dimensions of competition. In one company, for example, a long history of industry dominance had led to a widespread scepticism about a particular competitor who was viewed as a technologically inferior company with a strong home market position but without the capabilities to become a serious threat elsewhere. Through a powerful series of presentations, the CA unit of the company showed the remarkable progress the competitor had made in its product and process technologies, the gradual and carefully planned expansion of its share in many key markets, and hence the reality and urgency of the threat it posed to the company's long-term future. Another example from one of the other companies was a competitor analysis presentation that addressed the perception that a particular competitor was in an extremely vulnerable financial position and therefore not a significant competitor, and demonstrated how in fact it continued to be a serious threat both in the home market and abroad.

In each of these cases, the effect was to "shake up the troops" through presentations that combined data, interpretations, and conjectures imaginatively in order to challenge the organization's existing assumptions about particular competitors.

Benchmarking

Benchmarking provides a set of specific measures comparing the firm with its competitors on a set of key variables, such as capital investment, productivity, quality, and so on. Like sensitization, benchmarking challenges basic assumptions about the company and about its competitors (see Alston, 1986, for a detailed description and analysis of how benchmarking was used in one large company).

In one case, the CA unit obtained from an outside agency reliable estimates of the different components of manufacturing costs for a number of competitors' plants. These estimates were then used as benchmarks for

setting cost targets for the company's own plants. In another company, the products of all major competitors were collected and each component evaluated for quality. For each component, the highest quality item was identified, regardless of producer, and was used as the basis for establishing the company's minimum quality standards. Similar benchmarking exercises with manpower strengths, wage bills, R&D expenditures, and so on were reported in each of the three firms.

Legitimation

A third use of competitor analysis is legitimation: that is, to justify certain proposals and to persuade members of the organization of the feasibility and desirability of a chosen course of action. This function becomes particularly important when the company plans to take actions that are in conflict with the interests and beliefs of influential internal members or external constituencies. In such cases opposition can be reduced by demonstrating that the action is necessary for meeting competitive challenges or by showing that a similar program has worked effectively for a competitor.

For example, in one case, CA facilitated a manufacturing rationalization program that involved closing some units and considerably reducing employment. The company prepared and widely disseminated a document that showed why the actions were essential for survival against a specific competitor who had developed a highly efficient production system. This document not only reduced employee resistance to the plan but also helped to convince external agencies, including government agencies and local politicians, of the necessity of the proposed changes. Another excellent example of CA as legitimation was provided by the general manager of a business unit in a company that was reducing personnel by an acrossthe-board percentage in all areas. Beliveing strongly that his sales group was already at a serious competitive disadvantage because of its small size, he ordered a careful study of the number of sales people employed by his major competitors, and proved that his field sales force was already outnumbered by major competitors by a considerable margin. This analysis helped him get an exemption from the staff cuts.

Inspiration

The general manager in the preceding example used CA to justify something of which he was already convinced. But CA can also be used to give people new ideas about how to solve problems by identifying what other firms have done in similar circumstances: that is, it can provide inspiration. One example we were given involved the methodologies of competitive benchmarking and productivity assessment in R&D. A recent inhouse study undertaken by a major competitor (obtained with complete openness and impeccable legality) provided some useful guidelines on how to go about this task. The role of CA here is not necessarily to provide a model that can be copied, but to provide a demonstration that the problem is inherently solvable and to suggest some methods that can be adapted to fit one's own organizational context.

The difference between inspiration and legitimation can be summarized in two questions: how have others solved this problem (inspiration), and who has solved this problem this way (legitimation).

Planning

The use of competitor analysis to assist the formal planning process is widely advocated in the literature, and indeed in the interviews the largest number of cases of use cited (27 of 63) were contributions to the formal planning processes. These uses included contributions to estimates of market size and potential market share and assessments of potential opportunities for acquisitions (or divestments) of assets, firms, or technologies. One example from one of the three firms was the analysis of the political risk exposure of the international asset portfolio of key competitors, to ensure that the risk exposure of the firm's own asset base was not significantly greater.

Planning uses of CA were much more dependent on information from the formal CA function than any of the other uses. Indeed, for the other five categories of use, the role of information provider was approximately equally balanced between the formal CA structures and other sources. Planning was the only exception in drawing much more heavily on the outputs of the formal function.

Decision-making

The contribution of CA to operational and tactical decision-making by line managers constituted the second largest category of examples. The

range of decisions affected was considerable, ranging from tactical decisions about event sponsorship and discounting to operating decisions about plant closures. One example of CA impact on decision-making was provided by one manager in the context of the firm's response to new environmental regulations. Because these would increase the firm's costs considerably, top management had taken an initial decision to mobilize the firm's lobbying system to oppose the regulations. However, an analysis of the potential impact on competitors by the CA unit revealed that the new regulations would raise the costs of certain key competitors by a substantially greater margin. In consequence, top management reconsidered its stance and decided not to oppose the change.

Such multiple organizational uses of external information have been predicted in organization theory. Quoting from Sabatier (1978), Huber and Daft wrote,

"The idea that information [about the environment] is sought only for the purpose of affecting decisions is an overly simplistic view of the incentives for providing technical information to administrative agencies...A number of other incentives point to a perceived duty or responsibility to provide technical information without regard to probable instrumental effects on actual decisions." (1987: 144)

Furthermore, the same authors suggest the use of external information for legitimation:

"In many organizational settings, decision-makers must legitimate their decisions to others. Sabatier (1978) discusses this point at some length and notes a number of field studies of organizational decision-making where information was sought for the explicit purpose of legitimating decisions reached on other grounds." (1987: 145)

Similarly, the use of external information for inspiration or learning is highlighted by Downs:

"They do this [collect environmental information] not because they are dissatisfied, but because past experience teaches them that new developments are constantly occurring that might affect their present level of satisfaction." (1966: 169)

In contrast, the more managerial literature on strategy has been singularly focused on decision-making as the sole use of any environmental intelligence, including intelligence on competitors. The following quote from Porter is typical:

"Sophisticated competitor analysis is needed to answer such questions as who should we pick a fight with in this industry, and with what sequence of moves?" (1980: 47)

It is this normative literature to which managers are exposed, and it leads to internal evaluation criteria and expectations that may undercut the development of an effective CA function in the company.

BUILDING LEARNING CURVES IN THE CA FUNCTION

Virtually all the clients, analysts, and managers of analysts agreed that the CA function was still developing and still "climbing a learning curve." Unlike comparable functions such as economic analysis, undergirded by the academic discipline of economics, or political risk assessment with its base in political science, there is as yet no recognized external academic and professional base of expertise on which the CA function can Purthermore, the function has to face shifts over time in client needs, which become more complex and demanding over time -- less satisfied by information and more demanding of analysis -- as their sophistication about CA increases. CA must constantly struggle to stay ahead of the learning curves of its clients. And it must do so at a time when the corporation as a whole is tightening its belt, reducing the size of staff functions, and demanding well-grounded justifications for any increase in headcount. The CA function in all three companies employed the following methods to meet the challenge of improving its own capacity to meet shifting client needs in an era of constrained resources.

Interaction with Clients: Reporting Structure and Feedback

Reporting relationships are important because they define mutual responsibility: the performance of required tasks on the one hand, and clear delineation of expectations and feedback on performance on the other. In general, most analysts would have preferred to report directly to the person they regarded as their most important client, both to improve communications channels and to raise the status of the CA function (the higher the status of the person reported to, the higher one's own status). However, in all three companies, senior line managers at all levels were wary of increasing the number of staff functions reporting directly to them, and CA specialists at all levels reported to staff rather than line management.

Where CA evolved under the aegis of the planning function, it reported to the head of planning; where it had evolved under marketing intelligence, it reported to the manager of that function. In the first case, contributing to the planning process was viewed as its primary function; the

other uses (operational and tactical decision-making, legitimation, inspiration, benchmarking, and sensitizing) had far less salience. Where it reported to the market intelligence function, it had a greater range of application, and often greater autonomy. At least one SBU-level analyst whose reporting relationship had recently been changed from the marketing to the planning function felt that his work was being too narrowly targeted on contributions to the development of formal plans, and that his growing success in providing a range of information to line management was being undercut.

The lack of a reporting relationship to line management, while virtually inevitable, appeared to have some unfortunate consequences for the CA function. One was the creation of a gap between the priority given to different clients and the priorities expected by the clients themselves. For example, top corporate management was usually the first client named by corporate CA specialists. However, such managers are often quite satisfied with their own personal level of competitor information. In several of the interviews with top corporate and line management, the respondent appeared to regard the formal CA function primarily as a service to managers farther down the corporate ladder who lacked their personal networks and experience.

A more serious consequence of the lack of a direct reporting relationship to line management was the difficulty of getting useful feedback on outputs and establishing clearly the nature of client needs. In all three companies, the analysts and their managers identified the lack of specific definitions of client needs as one of their most serious problems; only two clients mentioned it as a salient problem. In the absence of the interactions stimulated by a direct reporting relationship, the analysts tried to project client needs from what they perceived to be indirect signals, and these tended to have extremely high noise levels.

These dilemmas are currently being addressed in the three companies primarily through the choice of dissemination mode. In all three companies, analysts had considerable latitude in deciding on the frequency of outputs and the mode of their delivery. We found that the CA function used both written and oral delivery modes, and that there was some use of electronic modes (Table 3).

Table 3 about here

Most expressed a strong preference for oral presentations, either in tandem with written reports or instead of them, for several reasons. Oral presentations are more visible to the client community and tend to have greater impact than written documents, and they help to raise the visibility of the function, thereby extending its internal networks. They also provided the opportunity to gather as well as disseminate information.

Analysts felt greater freedom in presenting interpretations in oral presentations, because they could be presented as tentative and reactions could be elicited immediately from the audience. And this immediacy of feedback, of which the reaction to analysis was one aspect, was the major reason oral presentations were preferred. Presentations provided an opportunity to assess the extent to which CA outputs were interesting and useful to clients; they were a major mode of obtaining client feedback and gauging client needs. All too often, however, clients did not adequately recognize this last function of presentations, and focused their attention exclusively on the data and analysis presented, rather than addressing directly the issue of what they might want instead.

Analysts in general preferred the widest possible dissemination of outputs, either written or oral, in part because it enhanced their visibility and hence their collection of information from internal sources, and because most analysts felt that "shaking up the troops" (sensitization) was an important aspect of their role. Many felt frustrated with the reluctance of senior management to encourage wide circulation of competitor information, a reluctance that was especially marked when the CA outputs contained a high level of analysis, or included comparable information on their own company.

One additional aspect of dissemination should be noted. Prescott and Smith (1987) recently distinguished between a comprehensive system that produced regular CA outputs and a project-based mode that produced outputs as needed. In all three companies we studied, the CA function was engaged in both.

Staffing the CA Function

Finding the people to staff the function who can keep abreast of changing demands and develop the function's own learning capacity is a

demanding task. There are two basic strategies for staffing an emerging information function. One is to develop a cadre of specialists who spend much of their careers within that function (for convenience, we shall call this the "analyst strategy"). The other is to recruit high potential generalists for whom the function is a development assignment, sensitizing them to certain skills and frameworks that will add to their personal portfolio of management skills (the "fast-tracker strategy"). The epitome of a staff function using the analyst strategy is probably economic analysis; the fast-tracker strategy is most common in strategic planning.

The profiles of the two types emerged clearly in response to the question, "What do you like most about your job?" "Analysts" tended to respond with statements of how much they enjoyed the challenge of putting information together, solving "puzzles," and learning. "Fast-trackers" tended to cite the interaction with top management, the excitement of understanding the competitive environment, and the opportunity to "make a real difference to this company" as the key aspects they enjoyed.

The advantages of the "analyst strategy" to the CA function itself probably outweigh those of the fast-tracker strategy. Having people build up expertise over time and holding them in the function improves CA capabilities as a whole. The fast-tracker strategy not only creates rapid turn-over in the function; it may also create an incentive structure for the individual that may be inimical to building learning curves in the function. Fast-track generalists tend to achieve personal gratification and high evaluations by initiating new programs or approaches, rather than by institutionalizing and consolidating those begun by their predecessors. The rewards in most Western companies are greater for innovation than for institutionalization.

On the other hand, for the company overall, the advantages of the fast-track strategy in this function are considerable. Of the "fast-track" analysts we interviewed, most stated that one of the things they liked best about the job was that they gained a strategic overview of the competitive environment and of their own company, an overview they could not have obtained anywhere else in such junior positions. Most said their way of thinking about the business had been permanently changed (in their opinion enhanced) by their experience. Even for the CA function, the long-term

advantages of having fast-track managers sensitized to the importance of CA may well outweigh the continuing loss of expertise in rapid turnover. As one manager of the function pointed out, in analogy to marketing research, to understand the uses and limitations of any type of intelligence function, one had to have some personal experience of how the intelligence is generated. The production of managers with such an understanding may be one of the most important long-run contributions of the CA function.

Developing Synergies in a Dispersed Function

One of the ways of building individual analysts' learning curves and of dealing with the problem of limited resources in a function where the demands are varied and escalating is to coordinate and integrate the activities of the participants within the dispersed CA systems. We found an array of such mechanisms, including special project teams, ongoing competitor assessment teams, joint theme-related presentations, and CA support groups.

In all three companies, project teams were used to focus on a particular issue or a particular competitor, with the objective of producing a comprehensive report within a given time frame. The teams were composed of people from all over the company who had particular expertise in the area, predominantly but not entirely from CA positions. One such project, for example, had the mandate to produce a strategic profile of a key competitor, emphasizing its vulnerabilities and how those could be exploited. It included representatives from the SBUs who confronted that competitor directly as well as from R&D, finance, and corporate planning.

In contrast to such special teams, which produced "one-shot" outputs, the ongoing competitor teams had the mandate of tracking a single competitor over time. Like the special project teams, they drew members from all over the company, but they were much more likely to draw on the competitor analysts dispersed throughout the company, because of the more extended time commitment involved. The outputs from such teams varied, but primarily took the form of joint presentations on the competitor at planning meetings or as requested by SBUs and functional units throughout the company. One of the companies, for example, had a set of ongoing teams, each of whom followed a key competitor, and whose membership varied from about 25 for the major corporate competitors to 7-8 for firms which competed across a narrower

range of SBUs. The major teams met fairly regularly, and the corporate CA unit had the responsibility for coordination and communication.

One step removed from the sustained interactions fostered by both types of teams was the joint presentation around a specified theme or competitor. This involved CA analysts from various parts of the organization, each presenting their view of a competitor or competitive issue to an audience composed of corporate, group, and SBU managers and planners, with minimal advance coordination. The aim was to stimulate debate and discussion across the presenting groups and within the audience. For example, one company held an annual forum which focused each year on a different competitor and the most salient issue at the time (such as the divestment strategy of a major competitor and the resulting opportunities for their own company).

The CA support group, in contrast, did not produce any competitor analyses; its function was to bring together CA specialists from all over the company to exchange information and expertise, to share problems, and to deal with issues of competing client definitions.

The mix of coordinating mechanisms in each company varied according to current needs and time available. The special project teams had the advantage of being highly visible and involving people from outside the CA function; they had the drawback of discontinuous outputs, a problem that tended to loom larger as CA became more established. For the ongoing competitor teams, the situation was reversed: they could provide continuity in outputs, and build learning curves on a single competitor, but they ran the risk of becoming too routinized and losing visibility. The joint presentation had the obvious disadvantage of minimizing ongoing interaction across CA units; however, coupled with a CA support group to develop shared learning in the function (as it was in one company we studied), it was well-suited to a company where information synergy across SBUs was relatively low.

Make or Buy

The boom in competitive strategy has given rise to a large number of consulting firms that specialize in some or all aspects of competitor analysis. A company can now purchase an array of CA services: competitor profiles, ongoing scanning of public information on competitors, internal "intelligence audits" to draw out the competitor information dispersed

within the company itself, and strategic planning support that covers virtually the entire range of CA activities. Buying some or all of the services is a tempting way to hold down the number of full-time employees in the CA function, and all three of the companies in the study had turned to this external market, primarily for the acquisition and editing of external, public information. The external contractors may even have an advantage in surveillance, since they can reap the benefits of scale and scope in the use of on-line data bases, and in search, where they are free to approach the competitors' suppliers and customers and even in some cases the competitor itself.

Even on acquisition, however, the decision on what to make and what to buy is complex, and one manager of the function gave a succinct rationale for keeping at least some of the process in-house. His company had decided to contract out the external acquisition of information on a certain set of competitors while keeping it in-house for a small number of key corporate competitors, for two major reasons. First, the level of understanding of those key competitors was so much higher within the firm than outside, even in a specialized contractor, that more value was added by keeping the process internal. Second, having in-house acquisition enabled him to benchmark the external contractors and assess their costs and the quality and scope of their output; the external contractors in turn provided a benchmark for the internal process. In SBUs, however, where a single individual may have the sole responsibility for the entire CA value adding process, there may be little alternative to external contracting of information acquisition, and relying on the corporate CA unit for benchmarking support.

Assessing the Role of Specialized CA Units

One of the most troublesome questions both for the researcher and the manager of the CA function is assessing its effectiveness or its contribution to the bottom line. As one manager put it succinctly, "Competitor analysis is just one piece of the puzzle in any major decision." Drawing a direct line from the CA unit to the end performance of the company in the marketplace is extremely difficult. Uncertainty over how to assess the efficiency with which competitor analysis is produced and the responsibility for its effectiveness creates serious problems in allocating

resources to the function -- and in identifying objectively which CA practices and organizational structures are more effective than others.

These two related problems -- the fact that CA is only one among many important information streams and the difficulties over resource allocation -- have led one of the firms in the study to consolidate competitor analysis with other environmental scanning functions at the corporate level into a single business information unit, which includes industry and economic analysis, political risk assessment, the public affairs function, and any related functions. This allows for greater interaction across the various environmental information streams and enhances economies of scope in terms of data bases, secretarial support, and management. It also provides a more neutral umbrella for a function whose formal title has often been problematic: "competitor analysis" carries unsavory implications for many people both within and outside the corporation.

The same firm has moved to ensure that client evaluations of the function are rigorous and honest by making a significant part of the corporate CA function's budget dependent on allocations from the SBUs, thereby creating an internal market to "discipline" the staff function. The advantages of this system is forcing internal clients of the function to assess very carefully the value it adds to decisions and operations are clear. The potential danger is that in the balancing act of the corporate CA function between routinized, ongoing analysis of current and potential corporate competitors and special projects, between acting as the firm's center of expertise for the dispersed function and providing CA outputs to key internal clients, between raising the general awareness of competitive issues throughout the corporation and serving the immediate needs of a small number of top managers, the broader, longer-term mandate will give way to the shorter-term, more tightly-focused activities.

- 1. Each interview covered a structured core of open-ended questions, plus exploratory conversations about the function that depended on the individual's experience and interest.
- 2. The size and sponsorship of the CA function contrast markedly with the environmental analysis units studied by Lenz and Engledow (1986). The EAUs they studied were virtually all issues management or public affairs functions, 80% of which were single-person offices. They also found that "virtually every environmental analysis unit was sponsored, or "owned" by at least one top-level executive officer" (80). While we began the study expecting to test some of the findings based on the literature of EAUs, we found the differences in size, sponsorship, and dispersion so great as to reduce considerably the relevance of comparisons.
- 3. When we asked the corporate units to name for us their most important clients in order to arrange interviews with them, other competitor analysts were not mentioned -- perhaps natural in this context, since we had already arranged to interview virtually all of the analysts, and the analysis of client assessments in the following section does not include as clients any competitor analysts.
- 4. These were elicited in the context of two questions: an explicit request to explain the gap, and a later question about what problems the competitor analysis function needed to address in future.

Table 1

Impediments to Effective Competitor Analysis:
Assessments of Analysts and Clients

FACTORS	Cited by		
EXTERNAL TO CA FUNCTION	% of clients (n = 63)	% of analysts	
EATERWAL TO CA FORCITOR	(11 = 03)	(11 = 73)	
CONTEXT - ORGANIZATIONAL Managerial culture Lack of information synergy across levels	23.8*** -	34.2***	
Wide range of information needs CA driven from the top, not user driven	- 7.9**	5.5*** 2.7*	
General information management problems	6.3***	16.4***	
Clients needs not specified	3.2*	10.9***	
Resource constraint	1.6*	20.5***	
Nosource constraint	1.0	20.5	
CONTEXT - ENVIRONMENTAL			
Legal constraints Availability of processed information	6.3***	5.5*	
from external sources	4.8*	-	
INTERNAL TO CA FUNCTION			
DATA MANAGEMENT			
Inadequate systems (IT)	11.1***	19.2***	
Need to improve acquisition from line	6.3***		
Redundancy of outputs	3.2**	i	
Inadequate quality check on sources	-	4.1**	
ANALYSIS			
Lack of appropriate methodologies	17.5***	6.8**	
Need to be more predictive	15.9***	8.2***	
Too much data, too little analysis	15.9***	12.3***	
Problems in reconciling hard/soft	9.5**	9.6**	
Noncumulative: outputs discontinuous	7.9***	11.0**	
Own company template	7.9***	1.4*	
IMPLICATIONS			
Lack of relevance of outputs to action	31.7***	9.6**	
Credibility problems	19.0***	15.1***	
	1		

^{1.} The total for "credibility problems" consists of three factors: low level of line/product expertise (mentioned by 14.3% of clients and 5.5% of analysts), lack of self checking/post mortems (1.6% clients, 1.4% analysts), and high turnover in CA positions (3.2% clients, 8.2% analysts).

Key: *** mentioned in all 3 companies; ** mentioned in 2 companies;
* mentioned in 1 company.

Table 2
Use of Competitor Intelligence

	TOTAL NUMBER	NUMBER OF CASES BY INFORMATION SOURCE		
	OF CASES	FORMAL CI FUNCTION IN COMPANY	OTHER	
SENSITIZING	3	2	1	
BENCHMARKING	6	4	2	
LEGITIMATION	3	1	2	
INSPIRATON	7	4	3	
PLANNING	27	20	7	
DECISION-MAKING	17	9	8	
TOTAL	63	40	23	

Table 3

Dissemination: The Different Kinds of Outputs

DELIVERY MODE	FREQUENCY				
noot	REGULAR	"AS NEEDED"			
URITTEN	Newsletters Annual competitor profiles Quarterly reports Planning cycle support documents	Strategic profiles of key competitors Briefing notes Special project reports			
ORAL	Annual review of competitors	Briefings Responses to queries			
ELECTRONIC	Nevs broadcasts	"Nevs flashes" Responses to electronic mail			

References

- Alston, J.P., The American Samurai, Walter De Gruyter, Berlin, 1989.
- Amit, Raphael, Domowitz, Ian, and Fershtman, Chaim, "Thinking One Step Ahead: The Use of Conjecture in Competitor Analysis", <u>Strategic</u> Management Journal, Vol. 9, no. 5 (1988), pp. 431-442.
- Daft, Richard, Sormunen, J, and Parks, D., "Chief Executive Scanning, Environmental Characteristics, and Company Performance: An Evaluative Study", <u>Strategic Management Journal</u>, Vol. 9, no. 2 (1988), pp. 123-139.
- Downs, A. Inside Bureaucracy, Little, Brown; Boston, 1966.
- Fuld, L.M., Competitor Intelligence: How to get it How to use it, Wiley, New York, 1985.
- Ghoshal, S. and S.K. Kim, "Building effective intelligence systems for competitive advantage", Sloan Management Review, vol. 28, 1986, pp. 49-58.
- Huber, G.P. and R.L. Daft, "The information environments of organizations" in F.M. Jablin, L.L. Putnam, K.H. Roberts, and L.W. Porter (eds.)

 Handbook of Organizational Communication, Sage publications,
 Beverley Hills, 1987.
- Information Data Search, inc., Competitor intelligence gathering: a survey, Cambridge, MA, 1985.
- Lenz, R.T. and Engledow, J.L., "Environmental Analysis Units and Strategic Decision-Making: A Field Study of Selected "Leading Edge" Corporations", Strategic Management Journal vol. 7, no. 1 (1986), pp. 69-89.
- Lenz, R.T. and Engledow, J.L., "Environmental Analysis: The Applicability of Current Theory", Strategic Management Journal, vol. 7, no.4 (1986), pp. 329-346.
- Porter, M.E., <u>Competitive Strategy: Techniques for Analyzing Industries and Competitors</u>, The Free Press, New York, 1980.
- Prescott, J.E. and Smith, D.C., "A Project-based Approach to Competitor Analysis", <u>Strategic Management Journal</u> vol. 8, no.5 (1987), pp.411 - 421
- Sabatier, P. "The acquisition and utilization of technical information by administrative agencies", Administrative Science Quarterly, 23, 1978, pp. 396-417.
- Sammon, W.L., M.A. Kurland, and R. Spitalnic, <u>Business Competitor</u>
 <u>Intelligence</u>, Ronald Press, New York, 1984.

	INSEAD WOR	KKING PAPERS SERIES	86/11	Philippe A. NAERT and Alain BULTEZ	"From "Lydiametry" to "Pinkhamization": misspecifying advertising dynamics rarely affects profitability".
<u>1986</u>			86/12	Roger BETANCOURT and David GAUTSCHI	"The economics of retail firms", Revised April 1986.
86/01	Arnoud DE MEYER	"The R & D/Production interface".	86/13	C D ANDERON	
86/02	Philippe A. NAERT	"Subjective estimation in integrating	80/13	S.P. ANDERSON and Damien J. NEVEN	"Spatial competition à la Cournot".
	Marcel WEVERBERGH	communication budget and allocation			
	and Guido VERSWUVEL	decisions: a case study", January 1986.	86/14	Charles WALDMAN	"Comparaison internationale des marges brutes du commerce", June 1985.
86/03	Michael BRIMM	"Spousorship and the diffusion of organizational			
		innovation; a preliminary view".	86/15	Mihkel TOMBAK and Arnoud DE MEYER	"How the managerial attitudes of firms with FMS differ from other manufacturing firms:
86/04	Spyros MAKRIDAKIS	"Confidence intervals: an empirical			survey results", June 1986.
	and Michèle HIBON	investigation for the series in the M-Competition".			
			86/16	B. Espen ECKBO and	"Les primes des offres publiques, la note
86/05	Charles A. WYPLOSZ	"A note on the reduction of the workweek", July 1985.		Herwig M. LANGOHR	d'information et le marché des transferts de contrôle des sociétés".
86/06	Francesco GIAVAZZI,	"The real exchange rate and the fiscal	86/17	David B. JEMISON	"Strategic capability transfer in acquisition
	Jeff R. SHEEN and	aspects of a natural resource discovery",			integration", May 1986.
	Charles A. WYPLOSZ	Revised version: February 1986.			
			86/18	James TEBOUL	"Towards an operational definition of
86/07	Douglas L. MacLACHLAN	"Judgmental biases in sales forecasting",		and V. MALLERET	services", 1986.
	and Spyros MAKRIDAKIS	February 1986.			
			86/19	Rob R. WEITZ	"Nostradamus: a knowledge-based
86/08	José de la TORRE and	"Forecasting political risks for			forecasting advisor".
	David H.NECKAR	international operations", Second Draft: March 3,			
		1986.	86/20	Albert CORHAY,	"The pricing of equity on the London stock
				Gabriel HAWAWINI	exchange: seasonality and size premium",
86/09	Philippe C. HASPESLAGH	"Conceptualizing the strategic process in		and Pierre A. MICHEL	June 1986.
		diversified firms; the role and nature of the			
		corporate influence process", February 1986.	86/21	Albert CORHAY,	"Risk-premia seasonality in U.S. and
				Gabriel A. HAWAWINI	European equity markets", February 1986.
86/10	R. MOENART,	"Analysing the issues concerning		and Pierre A. MICHEL	
	Amoud DE MEYER,	technological de-maturity".			
	J. BARBE and		86/22	Albert CORHAY,	"Seasonality in the risk-return relationships
	D. DESCHOOLMEESTER.			Gabriel A. HAWAWINI	some international evidence", July 1986.
				and Pierre A. MICHEL	

86/23	Arnoud DE MEYER	"An exploratory study on the integration of information systems in manufacturing", July 1986.	86/34	Philippe HASPESLAGH and David JEMISON	"Acquisitions: myths and reality", July 1986.
86/24	David GAUTSCHI and Vithala R. RAO	"A methodology for specification and aggregation in product concept testing",	86/35	Jean DERMINE	"Measuring the market value of a bank, a primer", November 1986.
	em Viuleie R. RAO	July 1986.	86/36	Albert CORHAY and Gabriel HAWAWINI	"Seasonality in the risk-return relationship: some international evidence", July 1986.
86/25	H. Peter GRAY and Ingo WALTER	"Protection", August 1986.	86/37	David GAUTSCHI and	"The evolution of retailing: a suggested
86/26	Barry EICHENGREEN	"The economic consequences of the Franc		Roger BETANCOURT	economic interpretation",
	and Charles WYPLOSZ	Poincare*, September 1986.	86/38	Gabriel HAWAWINI	"Financial innovation and recent developments in the French capital markets",
86/27	Karel COOL and Ingemar DIERICKX	"Negative risk-return relationships in business strategy: paradox or truism?",			Updated: September 1986.
		October 1986.	86/39	Gabriel HAWAWINI Pierre MICHEL	"The pricing of common stocks on the Brussels stock exchange: a re-examination of
86/28	Manfred KETS DE VRIES and Danny MILLER	"Interpreting organizational texts.		and Albert CORHAY	the evidence", November 1986.
86/29	Manfred KETS DE VRIES	"Why follow the leader?".	86/40	Charles WYPLOSZ	"Capital flows liberalization and the EMS, a French perspective", December 1986.
86/30	Manfred KETS DE VRIES	"The succession game: the real story.	86/41	Kasra FERDOWS and Wickham SKINNER	"Manufacturing in a new perspective", July 1986.
86/31	Arnoud DE MEYER	"Flexibility: the next competitive battle",	04110		ATTACK OF THE ACCUSE OF THE AC
		October 1986.	86/42	Kasra FERDOWS and Per LINDBERG	"FMS as indicator of manufacturing strategy", December 1986.
86/31	Arnoud DE MEYER, Jinichiro NAKANE, Jeffrey G. MILLER and Kasra FERDOWS	"Flexibility: the next competitive battle", Revised Version: March 1987.	86/43	Damien NEVEN	"On the existence of equilibrium in hotelling's model", November 1986.
07/23	W 1,000		86/44	Ingemar DIERICKX	"Value added tax and competition", December 1986.
86/32	Karel COOL and Dan SCHENDEL	Performance differences among strategic group members*, October 1986.		Carmen MATUTES and Damien NEVEN	December 1980.
86/33	Ernat BALTENSPERGER and Jean DERMINE	"The role of public policy in insuring financial stability: a cross-country,	<u>1987</u>		
		comparative perspective", August 1986, Revised November 1986.	87/01	Manfred KETS DE VRIES	"Prisoners of leadership".

87/02	Claude VIALLET	"An empirical investigation of international			
		asset pricing", November 1986.	87/15	Spyros MAKRIDAKIS	"METAFORECASTING: Ways of improving Forecasting. Accuracy and Usefulness",
87/03	David GAUTSCHI	"A methodology for specification and			May 1987.
	and Vithala RAO	aggregation in product concept testing",			
		Revised Version: January 1987.	87/16	Susan SCHNEIDER and Roger DUNBAR	"Takeover attempts: what does the language tell us?, June 1987.
87/04	Sumantra GHOSHAL and	"Organizing for innovations: case of the			
	Christopher BARTLETT	multinational corporation", February 1987.	87/17	André LAURENT and Fernando BARTOLOME	"Managers' cognitive maps for upward and downward relationships", June 1987.
87/05	Amoud DE MEYER	"Managerial focal points in manufacturing			
	and Kasra FERDOWS	strategy", February 1987.	87/18	Reinhard ANGELMAR and	"Patents and the European biotechnology
				Christoph LIEBSCHER	lag: a study of large European pharmaceutical
87/06	Arun K. JAIN,	"Customer loyalty as a construct in the			firms", June 1987.
	Christian PINSON and	marketing of banking services", July 1986.			
	Naresh K. MALHOTRA		87/19	David BEGG and	"Why the EMS? Dynamic games and the
87/07	Rolf BANZ and	"Equity pricing and stock market		Charles WYPLOSZ	equilibrium policy regime", May 1987.
87107	Gabriel HAWAWINI	anomalies*, February 1987.	87/20	Spyros MAKRIDAKIS	"A new approach to statistical forecasting", June 1987.
87/08	Manfred KETS DE VRIES	"Leaders who can't manage", February 1987.			72110 17511
		.	87/21	Susan SCHNEIDER	"Strategy formulation: the impact of national
87/09	Lister VICKERY,	"Entrepreneurial activities of European			culture", Revised: July 1987.
	Mark PILKINGTON	MBAs", March 1987.			•
	and Paul READ		87/22	Susan SCHNEIDER	"Conflicting ideologies: structural and motivational consequences", August 1987.
87/10	André LAURENT	"A cultural view of organizational change",			
		March 1987	87/23	Roger BETANCOURT	"The demand for retail products and the
				David GAUTSCHI	household production model: new views on
87/11	Robert FILDES and	"Forecasting and loss functions", March			complementarity and substitutability".
	Spyros MAKRIDAKIS	1987.	04/94	an benn . i	BOTA CALLED A A
87/12	Fernando BARTOLOME	FThe Journ Heads leaving from the consists	87/24	C.B. DERR and André LAURENT	"The internal and external careers: a
07/12	and André LAURENT	"The James Head: learning from the superior and subordinate faces of the manager's job",		Andre LAUKEN I	theoretical and cross-cultural perspective", Spring 1987.
		April 1987.	_		
00/13		magnetical at a state of a	87/25	A. K. JAIN,	"The robustness of MDS configurations in
87/13	Sumantra GHOSHAL and Nitin NOHRIA	"Multinational corporations as differentiated		N. K. MALHOTRA and	the face of incomplete data", March 1987,
	and Minn Mynkia	networks", April 1987.		Christian PINSON	Revised: July 1987.
87/14	Landia GABEL	"Product Standards and Competitive	87/26	Roger BETANCOURT	"Demand complementarities, household
		Strategy: An Analysis of the Principles", May	3.75	and David GAUTSCHI	production and retail assortments", July
		1987.			1987.

87/27	Michael BURDA	"Is there a capital shortage in Europe?", August 1987.	87/39	Manfred KETS DE VRIES	"The dark side of CEO succession", November 1987.
87/28	Gabriel HAWAWINI	"Controlling the interest-rate risk of bonds; an introduction to duration analysis and immunization strategies", September 1987.	87/40	Carmen MATUTES and Pierre REGIBEAU	"Product compatibility and the scope of entry", November 1987.
87/29	Susan SCHNEIDER and Paul SHRIVASTAVA	"Interpreting strategic behavior: basic assumptions themes in organizations", September 1987	87/41	Gabriel HAWAWINI and Claude VIALLET	"Seasonality, size premium and the relationship between the risk and the return of French common stocks", November 1987
87/30	Jonathan HAMILTON W. Bentley MACLEOD and J. F. THISSE	"Spatial competition and the Core", August 1987.	87/42	Damien NEVEN and Jacques-F. THISSE	"Combining horizontal and vertical differentiation: the principle of max-min differentiation", December 1987.
87/31	Martine QUINZII and J. F. THISSE	"On the optimality of central places", September 1987.	87/43	Jean GABSZEWICZ and Jacques-F. THISSE	"Location", December 1987.
87/32	Amoud DE MEYER	"German, French and British manufacturing strategies less different than one thinks", September 1987.	87/44	Jonathan HAMILTON, Jacques-F. THISSE and Anita WESKAMP	"Spatial discrimination: Bertrand vs. Courset in a model of location choice", December 1987.
87/33	Yves DOZ and Amy SHUEN	"A process framework for analyzing cooperation between firms", September 1987.	87/45	Karel COOL, David JEMISON and Ingemer DIERICKX	"Business strategy, market structure and risk-return relationships: a causal interpretation", December 1987.
87/34	Kasra FERDOWS and Arnoud DE MEYER	"European manufacturers: the dangers of complacency. Insights from the 1987 European manufacturing futures survey", October 1987.	87/46	Ingemar DIERICKX and Karel COOL	"Asset stock accumulation and sustainability of competitive advantage", December 1987.
87/35	P. J. LEDERER and J. F. THISSE	"Competitive location on networks under discriminatory pricing", September 1987.	1988 88/01	Michael LAWRENCE and	"Factors affecting judgemental forecasts and
87/36	Manfred KETS DE VRIES	"Prisoners of leadership", Revised version October 1987.	88/02	Spyros MAKRIDAKIS Spyros MAKRIDAKIS	confidence intervals", January 1988. "Predicting recessions and other turning
87/37	Landia GABEL	"Privatization: its motives and likely consequences", October 1987.	88/03	James TEBOUL	points", January 1988. "De-industrialize service for quality", January 1988.
87/38	Susan SCHNEIDER	"Strategy formulation: the impact of national culture", October 1987.			1700-

88/04	Susan SCHNEIDER	"National vs. corporate culture: implications for human resource management", January 1988.	88/16	Gabriel HAWAWINI	"Market efficiency and equity pricing: international evidence and implications for global investing", March 1988.
88/05	Charles WYPLOSZ	"The swinging dollar: is Europe out of step?", January 1988.	88/17	Michael BURDA	"Monopolistic competition, costs of adjustment and the behavior of European employment", September 1987.
88/06	Reinhard ANGELMAR	"Les conflits dans les canaux de			
		distribution", January 1988.	88/18	Michael BURDA	"Reflections on "Wait Unemployment" in Europe", November 1987, revised February
88/07	Ingemar DIERICKX and Karel COOL	"Competitive advantage: a resource based perspective", January 1988.			1988.
			88/19	M.J. LAWRENCE and	"Individual bias in judgements of
88/08	Reinhard ANGELMAR and Susan SCHNEIDER	"Issues in the study of organizational cognition", February 1988.		Spyros MAKRIDAKIS	confidence", March 1988.
			88/20	Jean DERMINE,	"Portfolio selection by mutual funds, an
88/09	Bernard SINCLAIR-	"Price formation and product design through		Damien NEVEN and	equilibrium model", March 1988.
	DESGAGNÉ	bidding", February 1988.		J.F. THISSE	
88/10	Bernard SINCLAIR- DESGAGNÉ	"The robustness of some standard auction game forms", February 1988.	88/21	James TEBOUL	"De industrialize service for quality", March 1988 (88/03 Revised).
88/11	Bernard SINCLAIR-	"When stationary strategies are equilibrium	88/22	Lars-Hendrik RÖLLER	"Proper Quadratic Functions with an
	DESGAGNÉ	bidding strategy: The single-crossing			Application to AT&T", May 1987 (Revised
		property", February 1988.			March 1988).
88/12	Spyroe MAKRIDAKIS	"Business firms and managers in the 21st	88/23	Sjur Didrik FLAM	"Equilibres de Nash-Cournot dans le marché
		century", February 1988		and Georges ZACCOUR	européen du gaz: un cas où les solutions en boucle ouverte et en feedback colocident".
88/13	Manfred KETS DE VRIES	"Alexithymia in organizational life: the			Mars 1988.
		organization man revisited", February 1988.			
88/14	Alain NOEL	"The interpretation of strategies: a study of	88/24	B. Espen ECKBO and	"Information disclosure, means of payment,
		the impact of CEOs on the		Herwig LANGOHR	and takeover premia. Public and Private
		corporation", March 1988.			tender offers in France ⁿ , July 1985, Sixth revision, April 1988.
88/15	Anil DEOLALIKAR and	"The production of and returns from			-
	Lars-Hendrik RÖLLER	industrial innovation: an econometric	88/25	Everette S. GARDNER	"The future of forecasting", April 1988.
		analysis for a developing country", December 1987.		and Spyros MAKRIDAKIS	
			88/26	Sjur Didrik FLAM	"Semi-competitive Cournot equilibrium in
				and Georges ZACCOUR	multistage oligopolies", April 1988.

88/27	Murugappa KRISHNAN	"Entry game with resalable capacity",	88/39	Manfred KETS DE VRIES	"The Leader as Mirror : Clinical Reflections", July 1988.
	Lare-Hendrik RÖLLER	April 1988.			,
			88/40	Josef LAKONISHOK and	"Anomalous price behavior around
88/28	Sumentra GHOSHAL and	"The multinational corporation as a network;		Theo VERMAELEN	repurchase tender offers", August 1988.
	C. A. BARTLETT	perspectives from interorganizational			
		theory", May 1988.	88/41	Charles WYPLOSZ	"Assymetry in the EMS: intentional or
					systemic?", August 1988.
88/29	Nareah K. MALHOTRA,	"Consumer cognitive complexity and the			
	Christian PINSON and	dimensionality of multidimensional scaling	88/42	Paul EVANS	"Organizational development in the
	Arun K. JAIN	configurations", May 1988.			transnational enterprise", June 1988.
88/30	Catherine C. ECKEL	"The financial fallout from Chemobyl: risk	88/43	B. SINCLAIR-DESGAGNÉ	"Group decision support systems implement
	and Theo VERMAELEN	perceptions and regulatory response", May			Bayesian rationality", September 1988.
		1988.			
			88/44	Essam MAHMOUD and	"The state of the art and future directions
88/31	Sumantra GHOSHAL and	"Creation, adoption, and diffusion of		Spyros MAKRIDAKIS	in combining forecasts", September 1988.
	Christopher BARTLETT	innovations by subsidiaries of multinational			
		corporations", June 1988.	88/45	Robert KORAJCZYK	"An empirical investigation of international
				and Claude VIALLET	asset pricing", November 1986, revised
88/32	Kasra FERDOWS and	"International manufacturing: positioning			August 1988.
	David SACKRIDER	plants for success", June 1988.			
00.00			88/46	Yves DOZ and	"From intent to outcomit a process
88/33	Mihkel M. TOMBAK	"The importance of flexibility in		Amy SHUEN	framework for partnerships", August 1988.
		manufacturing", June 1988.			
88/34	Mihkel M. TOMBAK	PER-Station on Landau Art State of the	88/47	Alain BULTEZ,	"Asymmetric cannibalism between substitute
00/274	Mulkel M. IOMBAR	"Flexibility: an important dimension in manufacturing", June 1988.		Ele GUSBRECHTS,	items listed by retailers", September 1988.
		ministrating, June 1900.		Philippe NAERT and Piet VANDEN ABEELE	
88/35	Mihkel M. TOMBAK	"A strategic analysis of investment in flexible		Het VANDEN ABEELE	
		manufacturing systems", July 1988.	88/48	Michael BURDA	"Reflections on 'Wait unemployment' in
			00/40	MICHAEL BORDA	Europe, II", April 1988 revised September
88/36	Vikas TIBREWALA and	"A Predictive Test of the NBD Model that			1988.
	Bruce BUCHANAN	Controls for Non-stationarity", June 1988.			
		• •	88/49	Nathalie DIERKENS	"Information asymmetry and equity issues",
88/37	Murugappa KRISHNAN	"Regulating Price-Liability Competition To			September 1988.
	Lars-Hendrik RÖLLER	Improve Welfare", July 1988.			•
			88/50	Rob WEITZ and	"Managing expert systems: from inception
88/38	Manfred KETS DE VRIES	"The Motivating Role of Envy: A Forgotten		Arnoud DE MEYER	through updating", October 1987.
		Factor in Management", April 88.			
			88/51	Rob WEITZ	"Technology, work, and the organization:
					the impact of expert systems", July 1988.

88/52	Susan SCHNEIDER and Reinhard ANGELMAR	"Cognition and organizational analysis: who's minding the store?", September 1988.	88/63	Fernando NASCIMENTO and Wilfried R. VANHONACKER	"Strategic pricing of differentiated consumer durables in a dynamic duopoly: a sumerical analysis", October 1988.
88/53	Manfred KETS DE VRIES	"Whatever happened to the philosopher- king: the lender's addiction to power, September 1988.	88/64	Kasra FERDOWS	"Charting strategic roles for international factories", December 1988.
88/54	Larn-Hendrik RÖLLER and Mihkel M. TOMBAK	"Strategic choice of flexible production technologies and welfare implications",	88/65	Arnoud DE MEYER and Kasra FERDOWS	"Quality up, technology down", October 1988
88/55	Peter BOSSAERTS	October 1988 "Method of moments tests of contingent	88/66	Nathalic DIERKENS	"A discussion of exact measures of information assymetry: the example of Myers
99/33	and Pierre HILLION	claims asset pricing models", October 1988.			and Majluf model or the importance of the asset structure of the firm", December 1988.
88/56	Pierre HILLION	"Size-corted portfolios and the violation of the random walk hypothesis: Additional empirical evidence and implication for tests of asset pricing models", June 1988.	88/67	Paul S. ADLER and Kasra FERDOWS	"The chief technology officer", December 1988.
88/57	Wilfried VANHONACKER	"Data transferability: estimating the response	<u>1989</u>		
00/21	and Lydia PRICE	effect of future events based on historical analogy", October 1988.	89/01	Joyce K. BYRER and Tawfik JELASSI	"The impact of language theories on DSS dialog", January 1989.
88/58	B. SINCLAIR-DESGAGNÉ and Mihkel M. TOMBAK	"Assessing economic inequality", November 1988.	89/02	Louis A. LE BLANC and Tawfik JELASSI	"DSS software selection: a multiple criteria decision methodology", January 1989.
88/59	Martin KILDUFF	"The interpersonal structure of decision making: a social comparison approach to organizational choice", November 1988.	89/03	Beth H. JONES and Tawfik JELASSI	"Negotiation support: the effects of computer intervention and conflict level on bargaining outcome", January 1989.
88/60	Michael BURDA	"Is mismatch really the problem? Some estimates of the Chelwood Gate II model with US data", September 1988.	89/04	Kasra FERDOWS and Amoud DE MEYER	"Lasting improvement in manufacturing performance: In search of a new theory", January 1989.
88/61	Lars-Hendrik RÖLLER	"Modelling cost structure: the Bell System revisited", November 1988.	89/05	Martin KILDUFF and Reinhard ANGELMAR	"Shared history or shared culture? The effects of time, culture, and performance on institutionalization in simulated
88/62	Cynthia VAN HULLE, Theo VERMAELEN and	"Regulation, taxes and the market for corporate control in Belgium", September			organizations", January 1989.
	Paul DE WOUTERS	1988.	89/06	Mihkel M. TOMBAK and B. SINCLAIR-DESGAGNÉ	"Coordinating manufacturing and business strategies: I", February 1989.

89/07	Damien J. NEVEN	"Structural adjustment in European retail banking. Some view from industrial organisation", January 1989.	89/18	Srinivasan BALAK- RISHNAN and Mitchell KOZA	"Information asymmetry, market failure and joint-ventures: theory and evidence", March 1989.
89/08	Arnoud DE MEYER and Helimut SCHÜTTE	"Trends in the development of technology and their effects on the production structure in the European Community", January 1989.	89/19	Wilfried VANHONACKER, Donald LEHMANN and Farcena SULTAN	"Combining related and sparse data in linear regression models", Revised March 1989.
89/09	Damien NEVEN, Carmen MATUTES and Marcel CORSTJENS	"Brand proliferation and entry deterrence", February 1989.	89/20	Wilfried VANHONACKER and Russell WINER	"A rational random behavior model of choice", Revised March 1989.
89/10	Nathalie DIERKENS, Bruno GERARD and	"A market based approach to the valuation of the assets in place and the growth	89/21	Amoud de MEYER and Kasra FERDOWS	"Influence of manufacturing improvement programmes on performance", April 1989.
89 /11	Pierre HILLION Manfred KETS DE VRIES	opportunities of the firm", December 1988. "Understanding the leader-strategy interface:	89/22	Manfred KETS DE VRIES and Sydney PERZOW	"What is the role of character in psychoanalysis?" April 1989.
69/11	and Alain NOEL	application of the strategic relationship interview method", February 1989.	89/23	Robert KORAJCZYK and Claude VIALLET	"Equity risk premia and the pricing of foreign exchange risk" April 1989.
89/12	Wilfried VANHONACKER	"Estimating dynamic response models when the data are subject to different temporal aggregation", January 1989.	89/24	Martin KILDUFF and Mitchel ABOLAFIA	"The social destruction of reality: Organisational conflict as social drama" zApril 1989.
89/13	Manfred KETS DE VRIES	"The impostor syndrome: a disquieting phenomenon in organizational life", February 1989.	89/25	Roger BETANCOURT and David GAUTSCHI	"Two essential characteristics of retail markets and their economic consequences" March 1989,
89/14	Reinhard ANGELMAR	"Product isnovation: a tool for competitive advantage", March 1989.	89/26	Charles BEAN, Edmond MALINVAUD, Peter BERNHOLZ.	"Macroeconomic policies for 1992: the transition and after", April 1989.
89/15	Reinhard ANGELMAR	"Evaluating a firm's product isnovation performance", March 1989.		Francesco GIAVAZZI and Charles WYPLOSZ	
89/16	Wilfried VANHONACKER, Donald LEHMANN and Farcena SULTAN	"Combining related and sparse data in linear regression models", February 1989.	89/27	David KRACKHARDT and Martin KILDUFF	"Friendship patterns and cultural attributions: the control of organizational diversity", April 1989.
89/17	Gilles AMADO, Claude FAUCHEUX and André LAURENT	"Changement organisationnel et réalités culturelles: contrastes franco-américains", March 1989.	89/28	Martin KILDUFF	"The interpersonal structure of decision making: a social comparison approach to organizational choice", Revised April 1989.

89/29	Robert GOGEL and Jean-Claude LARRECHE	"The battlefield for 1992: product strength and geographic coverage", May 1989.	89/42	Robert ANSON and Tawfik JELASSI	"A development framework for computer- supported conflict resolution", July 1989.
89/30	Lars-Hendrik ROLLER and Mihkel M. TOMBAK	"Competition and Investment in Flexible Technologies", May 1989.	89/43	Michael BURDA	"A note on firing costs and severance benefits in equilibrium unemployment", June 1989.
89/31	Michael C. BURDA and Stefan GERLACH	"Intertemporal prices and the US trade balance in durable goods", July 1989.	89/44	Balaji CHAKRAVARTHY and Peter LORANGE	"Strategic adaptation in multi-business firms", June 1989.
89/32	Peter HAUG and Tawfik JELASSI	"Application and evaluation of a multi- criteria decision support system for the dynamic selection of U.S. manufacturing	89/45	Rob WEIT2 and Amoud DE MEYER	"Managing expert systems: a framework and case study", June 1989.
89/33	Bernard SINCLAIR-	locationa", May 1989. "Design flexibility in monopsonistic	89/46	Marcel CORSTJENS, Carmen MATUTES and Damien NEVEN	"Entry Encouragement", July 1989.
	DESGAGNÉ	industries", May 1989.	89/47	Manfred KETS DE VRIES	"The global dimension in leadership and
89/34	Sumantra GHOSHAL and Nittin NOHRIA	"Requisite variety versus shared values: managing corporate-division relationships in the M-Form organisation", May 1989.		and Christine MEAD	organization: issues and controversies", April 1989.
89/35	Jean DERMINE and Pierre HILLION	"Deposit rate ceilings and the market value of banks: The case of France 1971-1981".	89/48	Damien NEVEN and Lars-Hendrik RÖLLER	"European integration and trade flows", August 1989.
		May 1989.	89/49	Jean DERMINE	"Home country control and mutual recognition", July 1989.
89/36	Martin KILDUFF	"A dispositional approach to social networks: the case of organizational choice", May 1989.	89/50	Jean DERMINE	"The specialization of financial institutions, the EEC model", August 1989.
89/37	Manfred KETS DE VRIES	"The organisational fool: balancing a leader's hubris", May 1989.	89/51	Spyros MAKRIDAKIS	"Sliding simulation: a new approach to time series forecasting", July 1989.
89/38	Manfred KETS DE VRIES	"The CEO blues", June 1989.	89/52	Amoud DE MEYER	"Shortening development cycle times: a
89/39	Robert KORAJCZYK and Claude VIALLET	"An empirical investigation of international asset pricing", (Revised June 1989).			manufacturer's perspective", August 1989.
89/40	Balaji CHAKRAVARTHY	"Management systems for innovation and productivity", June 1989.	89/53 89/54	Spyros MAKRIDAKIS S. BALAKRISHNAN	"Why combining works?", July 1989. "Organisation costs and a theory of joint
89/41	B. SINCLAIR-DESGAGNE and Nathalic DIERKENS	"The strategic supply of precisions", June 1989.		and Mitchell KOZA	ventures", September 1989.

89/55	н. ѕснитте	"Euro-Japanese cooperation in information technology", September 1989.	89/67 (FIN)	Peter BOSSAERTS and Pierre HILLION	"Market microstructure effects of government intervention in the foreign exchange market", December 1989.
89/56	Wilfried VANHONACKER and Lydia PRICE	"On the practical usefulness of meta-analysis results", September 1989.			•
89/57	Taekwon KIM.	White where consists and the difference of	<u>1990</u>		
67/3/	Lars-Hendrik RÖLLER and Mihkel TOMBAK	"Market growth and the diffusion of multiproduct technologies", September 1989.	90/01 TM/EP/AC	B. SINCLAIR-DESGAGNÉ	"Unavoidable Mechanisms", January 1990.
89/58	Lars-Hendrik RÖLLER	"Strategic aspects of flexible production	90/02	Michael BURDA	"Monopolistic Competition, Costs of
(EP,TM)	and Mihkel TOMBAK	technologies", October 1989.	EP		Adjustment, and the Behaviour of European
					Manufacturing Employment*, January 1990.
89/59	Manfred KETS DE VRIES,	"Locus of control and entrepreneurship: a			
(OB)	Daphna ZEVADI,	three-country comparative study", October	90/03	Amoud DE MEYER	"Management of Communication in
	Alain NOEL and	1989.	TM		International Research and Development",
	Mihkel TOMBAK				January 1990.
89/60	Enver YUCESAN and	"Simulation graphs for design and analysis of	90/04	Gabriel HAWAWINI and	*The Transformation of the European
(TM)	Lee SCHRUBEN	discrete event simulation models", October	FIN/EP	Eric RAJENDRA	Pinancial Services Industry: From
		1989.			Fragmentation to Integration", January 1990.
89/61	Susan SCHNEIDER and	"Interpreting and responding to strategic	90/05	Gabriel HAWAWINI and	"European Equity Markets: Toward 1992
(AII)	Arnoud DE MEYER	issues: The impact of national culture",	FIN/EP	Bertrand JACQUILLAT	and Beyond", January 1990.
		October 1989.		•	
			90/06	Gabriel HAWAWINI and	"Integration of European Equity Markets:
89/62	Arnoud DE MEYER	"Technology strategy and international R&D	FIN/EP	Eric RAJENDRA	Implications of Structural Change for Key
(TM)		operations", October 1989.			Market Participants to and Beyond 1992", January 1990.
89/63	Enver YUCESAN and	"Equivalence of simulations: A graph			Velouely 1970.
(TM)	Lee SCHRUBEN	approach", November 1989.	90/07	Gabriel HAWAWINI	"Stock Market Anomalies and the Pricing of
			FIN/EP		Equity on the Tokyo Stock Exchange",
89/64	Enver YUCESAN and	"Complexity of simulation models: A graph			January 1990.
(TM)	Lee SCHRUBEN	theoretic approach", November 1989.			·
			90/08	Tawfik JELASSI and	"Modelling with MCDSS: What about
89/65	Soumitra DUTTA and	"MARS: A mergers and acquisitions	TM/EP	B. SINCLAIR-DESGAGNÉ	Ethics?", January 1990.
(TM,	Piero BONISSONE	reasoning system, November 1989.			
AC, FIN)			90/09	Alberto GIOVANNINI	"Capital Controls and International Trade
90/66	h onioi im second	10 4. 14 4	EP/FIN	and Jac WON PARK	Finance*, January 1990.
89/66 (TM,EP)	B. SINCLAIR-DESGAGNÉ	"On the regulation of procurement bids", November 1989.	00110	I DRVED	ame to the first of the first o
(IIVI,EI')		November 1989.	90/10 TM	Joyce BRYER and	"The Impact of Language Theories on DSS
			1 M	Tawfik JELASSI	Dialog", January 1990.

			90/21	Roy SMITH and	"Reconfiguration of the Global Securities
90/11	Enver YUCESAN	"An Overview of Frequency Domain	FIN	Ingo WALTER	Industry in the 1990's", February 1990.
TM		Methodology for Simulation Sensitivity			
		Analysis", January 1990.	90/22	Ingo WALTER	*European Financial Integration and Its
			FIN		Implications for the United States", February
90/12	Michael BURDA	"Structural Change, Unemployment Benefits			1990.
EP		and High Unemployment: A U.SEuropean			
		Comparison", January 1990.	90/23	Damien NEVEN	*EEC Integration towards 1992: Some
			EP/SM		Distributional Aspects", Revised December
90/13	Soumitra DUTTA and	*Approximate Reasoning about Temporal			1989
TM	Shashi SHEKHAR	Constraints in Real Time Planning and			
		Search", January 1990.	90/24 FIN/EP	Lars Tyge NIELSEN	"Positive Prices in CAPM", January 1990.
90/14	Albert ANGEHRN and	"Visual Interactive Modelling and Intelligent			
TM	Hans-Jakob LÜTHI	DSS: Putting Theory Into Practice", January	90/25	Lars Tyge NIELSEN	"Existence of Equilibrium in CAPM",
		1990.	FIN/EP	,,	January 1990.
					•
90/15	Arnoud DE MEYER,	"The Internal Technological Renewal of a	90/26	Charles KADUSHIN and	"Why networking Fails: Double Binds and
TM	Dirk DESCHOOLMEESTER,	Business Unit with a Mature Technology",	OB/BP	Michael BRIMM	the Limitations of Shadow Networks".
	Rudy MOENAERT and	January 1990.			February 1990.
	Jan BARBE	·			•
			90/27	Abbas FOROUGHI and	"NSS Solutions to Major Negotiation
90/16	Richard LEVICH and	"Tax-Driven Regulatory Drag: European	TM	Tawfik JELASSI	Stumbling Blocks", February 1990.
FIN	Ingo WALTER	Financial Centers in the 1990's", January			
		1990.	90/28	Amoud DE MEYER	"The Manufacturing Contribution to
			TM		Immovation*, February 1990.
90/17	Nathalie DIERKENS	"Information Asymmetry and Equity Issues",			
FIN		Revised January 1990.	90/29	Nathalic DIERKENS	"A Discussion of Correct Measures of
			FIN/AC		Information Asymmetry", January 1990.
90/18	Wilfried VANHONACKER	"Managerial Decision Rules and the			
MKT		Estimation of Dynamic Sales Response	90/30	Lars Tyge NIELSEN	"The Expected Utility of Portfolios of
		Models", Revised January 1990.	FIN/EP		Assets", March 1990.
90/19	Beth JONES and	"The Effect of Computer Intervention and	90/31	David GAUTSCHI and	"What Determines U.S. Retail Margins?",
TM	Tawfik JELASSI	Task Structure on Bargaining Outcome",	MKT/EP	Roger BETANCOURT	February 1990.
		February 1990.			
			90/32	Srinivasan BALAK-	"Information Asymmetry, Adverse Selection
90/20	Tewfik JELASSI,	"An Introduction to Group Decision and	SM	RISHNAN and	and Joint-Ventures: Theory and Evidence",
TM	Gregory KERSTEN and	Negotiation Support", February 1990.		Mitchell KOZA	Revised, January 1990.
	Stanley ZIONTS		90/33	Caren SIEHL,	"The Role of Rites of Integration in Service
			ОВ	David BOWEN and	Delivery", March 1990.
				Christine PEARSON	

			90/45	Soumitra DUTTA and	"Integrating Case Based and Rule Based
90/34	Jean DERMINE	"The Gains from European Banking	TM	Piero BONISSONE	Reasoning: The Possibilistic Connection",
FIN/EP		Integration, a Call for a Pro-Active			May 1990.
		Competition Policy", April 1990.			
			90/46	Spyros MAKRIDAKIS	"Exponential Smoothing: The Effect of
90/35	Jac Won PARK	"Changing Uncertainty and the Time-	TM	and Michèle HIBON	Initial Values and Loss Functions on Post-
EP		Varying Risk Premia in the Term Structure			Sample Forecasting Accuracy".
		of Nominal Interest Rates", December 1988,			
		Revised March 1990.	90/47	Lydia PRICE and	"Improper Sampling in Natural
			MKT	Wilfried VANHONACKER	Experiments: Limitations on the Use of
90/36	Arnoud DE MEYER	"An Empirical Investigation of			Meta-Analysis Results in Bayesian
TM		Manufacturing Strategies in European			Updating", Revised May 1990.
		Industry*, April 1990.			
			90/48	Jac WON PARK	"The Information in the Term Structure of
90/37	William CATS-BARIL	"Executive Information Systems: Developing	EP		Interest Rates: Out-of-Sample Forecasting
TM/OB/SM		an Approach to Open the Possibles", April			Performance*, June 1990.
		1990.			
			90/49	Soumitra DUTTA	"Approximate Reasoning by Analogy to
90/38	Wilfried VANHONACKER	"Managerial Decision Behaviour and the	TM		Answer Null Queries*, June 1990.
MKT		Estimation of Dynamic Sales Response			
		Models", (Revised February 1990).	90/50	Daniel COHEN and	"Price and Trade Effects of Exchange Rates
			EP	Charles WYPLOSZ	Fluctuations and the Funga of Policy
90/39	Louis LE BLANC and	"An Evaluation and Selection Methodology			Coordination", April 1990.
TM	Tewfik JELASSI	for Expert System Shells", May 1990.			
			90/51	Michael BURDA and	"Gross Labour Market Flows in Europe:
90/40	Manfred KETS DE VRIES	"Leaders on the Couch: The case of Roberto	EP	Charles WYPLOSZ	Some Stylined Facts", June 1990.
OB		Calvi", April 1990.			
			90/52	Lars Tyge NIELSEN	"The Utility of Infinite Messes", June 1990.
90/41	Gabriel HAWAWINI,	"Capital Market Reaction to the	FIN		
FIN/EP	Itzhak SWARY and	Amouncement of Interstate Banking			
	Ik HWAN JANG	Legislation", March 1990.	90/53	Michael Burda	"The Consequences of German Economic
			EP		and Monetary Union", June 1990.
90/42	Joel STECKEL and	*Cross-Validating Regression Models in			
MKT	Wilfried VANHONACKER	Marketing Research", (Revised April 1990).	90/54	Damien NEVEN and	"European Financial Regulation: A
			EP	Colin MEYER	Framework for Policy Analysis", (Revised
90/43	Robert KORAJCZYK and	"Equity Risk Premia and the Pricing of			May 1990).
FIN	Claude VIALLET	Foreign Exchange Risk", May 1990.			
			90/55	Michael BURDA and	"Intertemporal Prices and the US Trade
90/44	Gilles AMADO,	"Organisational Change and Cultural	EP	Stefan GERLACH	Balance ^a , (Revised July 1990).
OB	Claude FAUCHEUX and	Realities: Franco-American Contrasts", April			
	André LAURENT	1990.			

90/56 EP	Damien NEVEN and Lars-Hendrik RÖLLER	"The Structure and Determinants of East-West Trade: A Preliminary Analysis of the Manufacturing Sector", July 1990
90/57 FIN/EP/ TM	Lars Tyge NIELSEN	Common Knowledge of a Multivariate Aggregate Statistic", July 1990
90/58 FIN/EP/TM	Lars Tyge NIELSEN	"Common Knowledge of Price and Expected Cost in an Oligopolistic Market", August 1990
90/59 FIN	Jean DERMINE and Lars-Hendrik RÖLLER	"Economies of Scale and Scope in the French Mutual Funds (SICAV) Industry", August 1990
90/60 TM	Peri IZ and Tawfik JELASSI	"An Interactive Group Decision Aid for Multiobjective Problems: An Empirical Assessment", September 1990
90/61 TM	Pankaj CHANDRA and Mihkel TOMBAK	"Models for the Evlauation of Manufacturing Flexibility", August 1990
90/62 EP	Damien NEVEN and Menno VAN DUK	"Public Policy Towards TV Broadcasting in the Netherlands", August 1990