

DE-DIVERSIFICATION

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**DE-DIVERSIFICATION ACTIVITIES OF GERMAN
CORPORATIONS FROM 1988 TO 2002: PERSPECTIVES
FROM AGENCY AND MANAGEMENT FASHION THEORY**

ABSTRACT

In the past, many countries have witnessed de-diversification waves. In this paper we illustrate that the same phenomenon can be observed in Germany. We discuss different theoretical explanations for the occurrence of de-diversification: the predominant agency theory approach and the less common neo-institutionalist/management fashion theory. We present data on 360 divestitures by German corporations between 1988 and 2002 and obtain additional data from a literature database. The results show that management fashions can influence the impact of capital markets. We suggest strengthening the link between finance theory and research in strategy and organization.

JEL-Classification: D21, D23, G34, M10.

Keywords: Agency Theory; Capital Markets; Diversification; Management Fashion; Neo-Institutionalism; Refocusing; Strategic Management.

1 INTRODUCTION

For more than 40 years, management researchers have been investigating the costs and benefits of diversification on the corporate level. Over this period there has been a pendulum swing in opinion. In the 1960s, it was widely thought that conglomerates, i.e., companies consisting of several unconnected subsidiaries, were an efficient organizational structure (Davis et al. (1994)). In Germany, too, the so-called "Mischkonzern" was highly regarded. However, in the 1980s the pendulum began to swing back, and the conglomerate model is now viewed critically. In the last few years, buzzwords such as "refocusing", "concentration on core competencies", or "portfolio streamlining" have become popular.

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This trend is supported by capital market research. The hypothesis is that as a result of agency problems, salaried managers tend to over-diversify. The de-diversification wave observed in the U.S. since then 1980s is generally interpreted as a corrective movement resulting from improvements in the way the capital market functions (Johnson (1996)).

In this article we introduce two further aspects to the debate on refocusing. Firstly, we examine if parallel tendencies to those in the U.S. are actually evident in Germany. Activities in the market for corporate control have increased significantly in Germany since the end of the 1980s, but whether this development has led to the wave of de-diversification is unclear.

Second, we discuss another explanation for the change in popularity of the diversified company as an alternative to the dominant trend of capital market research. Our approach is based on neo-institutional theory, which has gained increasing importance in the U.S., particularly in organizational theory discourse. It also integrates findings from the more recent debate on management fashions.

We test the in-part competing views of each of the aforementioned approaches against an empirical analysis. We construct our database from an examination of 360 divestitures by German listed companies between 1988 and 2002.

2 THE EFFICIENCY OF DIVERSIFIED COMPANIES

2.1 THEORETICAL BASIS

From an economic viewpoint, the widespread existence of diversified companies requires an explanation. According to the concept of value additivity, diversification does not enhance a firm's value, and from the owner's point of view, it also limits liquidity (Brealey, Myers, and Marcus (1995)). It is the investor who should diversify, not the company (Amihud and Lev (1981)). Indeed, it does at first appear that there is little reason to suppose that the internal capital market should function more efficiently than the external market (Jensen (1995)).

Furthermore, the disadvantages of diversified companies are well-known: there is the danger of control and motivation loss in the individual business units, information hindrance as a result of additional levels of hierarchy, and top management "bottleneck" problems in information flow, to name just a few (e.g., Markides (1995)).

On the other hand, there are also factors that support the efficiency of the diversified company. Transaction-cost theory suggests that company-specific and intangible assets, such as particular technological capabilities, are otherwise difficult to trade in the market place (Montgomery and Wernerfelt (1988); Markides (1995)). Several market imperfections, most notably the high transaction costs, constrain the external use of such assets. Thus, the reason behind the diversification activities of many companies lies in the intention to use such assets in other markets efficiently (Teece (1982)). In

this case, information asymmetries and agency costs are lower in internal “markets” than they are in external markets (Williamson (1975)).

In addition to these considerations, the literature also offers a number of individual arguments in favor of the efficiency of the internal capital market and corporate diversification. These arguments include economies of scope or synergies, market power, and tax benefits, as well as the ability to finance projects without having to disclose sensitive information.

2.2 EMPIRICAL EVIDENCE

A straightforward method of assessing the efficiency of a diversified company is to analyze whether it trades at a discount when compared to the value of a portfolio of similar stand-alone firms. This approach is taken by studies demonstrating a “conglomerate discount”. Most current capital market research comes to the conclusion that such a discount exists (Servaes (1996)).

In a recent study, Graham et al. (2002) show that such studies do not consider that many conglomerates acquired firms that were already previously discounted. If we consider this aspect, the remaining conglomerate discount is negligible. Furthermore, the predominant opinion that the 1960s conglomerates were generally inefficient has also come under criticism (Hubbard and Palia (1999); Klein (2001)). According to one argument, many studies do not consider the comparatively underdeveloped state of the external capital market at that time, and as a result, the relative advantage of the internal capital market. Other studies show that, in contrast to popular opinion, those business units sold in the 1980s were not the same as those that were acquired in the 1960s, but were completely different companies (Montgomery and Wilson (1986)). Indeed, 76% of the supposedly inefficient acquisitions were often retained for more than 20 years. This observation also spreads further doubt on the general opinion of conglomerate inefficiency.

3 AGENCY VIEW

3.1 THE AGENCY PROBLEM AND DIVERSIFICATION

In view of the ambiguous conclusions of the theoretical and empirical arguments, the finance literature has begun to move away from considering whether diversification should be rejected as a whole or not. Instead, the question has shifted, and we now ask if the company has exceeded its “optimal degree of diversification”. Expressed this way, the literature communicates a clearer message, at least at first glance. In particular, agency theory presents numerous arguments and empirical findings that suggest that an “overdiversified” company is a typical expression of an agency problem (Jensen and Meckling (1976); Johnson (1996)).

For instance, the readiness to take risks is different for managers than it is for the owners. The latter are able to balance their risks across different companies (Amihud and Lev (1981)). This option is not open to salaried managers, or at least to a lesser degree. Corpo-

rate diversification provides managers with the opportunity to reduce the risk of losing their job due to a low performance of one of the business units. Thus, a manager may pursue personal benefits through acquisitions, and do so at the expense of shareholders' wealth. In addition, when top management's compensation is coupled with corporate size, this mechanism results in further incentives to expand through diversification. Further, authors include nonmonetary motives, such as the increased power and reputation of the top management and the desire for "empire building" (Baumol (1967)).

3.2 EMPIRICAL EVIDENCE ON OVERDIVERSIFICATION

There is some empirical evidence to support the hypothesis that managers choose to diversify in their own interests (Jensen (1986); Jensen (1993)). For example, Amihud et al. (1983) show, that owner-controlled companies tend to diversify less than do manager-controlled companies. The overdiversification hypothesis fits well with the activities in the market for corporate control. In 1960, only 1% of the largest U.S. corporations de-diversified compared with 25% who diversified their activities. In the 1980s, the proportion began to reverse, with only 8% diversifying and 20% de-diversifying (Markides (1995, 8)). The trend towards stronger refocusing continued in the 1990s (Davis et al. (1994)).

Economists attribute the counter development that began in the 1980s to improved capital market efficiency. An important factor is the disciplinary effect of the market for corporate control (Bühner and Stiller (2004)). Diversified companies became a favorite target for hostile takeovers. Managers who had contributed to inefficient conglomerates as a result of pursuing personal interests now risked having to relinquish corporate control to a management team of institutional investors or of another corporation. Furthermore, the importance of institutional investors continues to rise in the U.S. to the present day (Useem (1996)). As a result, the shareholder concentration is rising. The agency problem is reduced and the pressure on the management to focus their economic activities on shareholder wealth increases.

From an agency theory point of view, whatever the optimal degree of diversification may be in each individual case, insufficiently disciplined managers will tend to exceed it. With this in mind, we should be able to observe de-diversification measures when managers feel more subject to control through the capital market. In addition, de-diversifications should also have a positive announcement effect. Berger and Ofek (1999) show that this is indeed the case.

A weakness of Berger and Ofek's (1999) study and related studies is that they depend on positive announcement effects to determine actual improved efficiency. For this research design it has to be presumed that the capital market is able to determine the optimal degree of diversification. The agency theory approach to diversification rests on such an assumption. According to Jensen (1993, 867), active investors have "the financial interest and independence to view firm management and policies in an unbiased way". This assumption of an unbiased efficiency assessment through the capital market is debatable. Current academic discourse has not yet produced a reliable means of assessing the optimal degree of diversification, as illustrated in the above discussion.

With regard to the question of efficiency, Markides (1995) concludes his comprehensive analysis of the state of diversification research more cautiously. He suggests that only previously overdiversified corporations can increase their efficiency through refocusing and concentration measures. However, the tautological nature of his statement is quite clear.

4 DE-DIVERSIFICATION FROM THE VIEWPOINT OF NEO-INSTITUTIONALISM AND MANAGEMENT FASHION THEORY

4.1 NEO-INSTITUTIONALISM

From the viewpoint of neo-institutional theory, organizations are bound within a social framework of norms, values, and taken for granted assumptions that determine what is deemed appropriate or acceptable economic behavior (DiMaggio and Powell (1983); Meyer and Rowan (1977)). Judgments of appropriateness are not based solely on individual perceptions, but follow cognitive structures that are shared across societies (Davis et al. (1994, 550)). Organizational forms or practices are institutionalized when they are adopted because actors follow these shared cognitive structures, rather than because a rational process found them best suited. One sign of institutionalization is widespread adoption of an organizational form, independent of evidence that it is efficient. A test of efficiency does not take place, either while the causal relationships are too complex or because the institutionalization is so pervasive that it does not occur to question its validity. Imitation processes within the organizational field ensure the diffusion of an institutionalized practice.

The academic debate about corporate diversification shows how difficult it is to assess the efficiency of a diversified firm. If the situation is unclear for management academics, then it is likely that it is also not clear to top management, analysts, and shareholders. In such situations, individuals and organizations typically act according to generally accepted and widespread, i.e., institutionalized, practices. According to Davis et al. (1994), in the 1960s the dominant conglomerate corporate structure was an institutionalized form. The concept of a company consisting of a portfolio of different business units was generally regarded as the most progressive organizational structure. Its efficiency was taken for granted.

The process of institutionalization is self-reinforcing. Widespread adoption increases its legitimization, and legitimization ensures its acceptability and therefore dissemination. Many neo-institutionalists assume that at least the early adopters must have observed some form of improved efficiency for this self-reinforcing process to come into effect.

In the neo-institutionalist viewpoint, the capital market actors are also an important factor. Their legitimacy ensures the supply of resources. According to Davis et al. (1994), the capital market plays an important role in the spreading of de-diversification activities¹.

1 In this context we mean disinvestments that reduce the degree of diversification of the de-diversifying corporation. In this case, disinvestment generally means all sales of a business or aspects thereof (assets, product lines) to a third party. See Weston et al. (1998, 664).

The increase in de-diversification activities observed since the 1980s is, according to Davis et al. (1994, 567), a sign for the de-institutionalization of the conglomerate:

„[M]ental models of ‘what Wall Street wants’ have come to have a powerful influence on how top managers of large corporations choose organizational forms and practices, and these models were behind of much of the voluntary deconglomeration observed during the 1980s”.

However, neo-institutionalists do not offer much information about how these mental models first arise. Referring to the efficient pioneers is not appropriate in this context. Neo-institutionalist studies use the capital market as an indicator for measuring the efficiency of a management practice (Davis et al. (1994)). However, the capital market actors are now also involved in the process of institutionalization. The question arises as to which of the preceding interpretation processes have led to the capital market’s view that a more focused structure is more efficient. The management fashion approach addresses this issue.

4.2 MANAGEMENT FASHIONS

The concept of management fashions extends and modifies neo-institutional theory (for an overview Kieser (1996); Carson et al. (2000)). In contrast to neo-institutionalism, this theoretical movement concentrates exclusively on the dissemination of management techniques. Abrahamson and Fairchild (1999, 709) define management fashions as “relatively transitory collective beliefs, disseminated by the discourse of management-knowledge entrepreneurs, that a management technique is at the forefront of rational management progress”.

The management fashion approach recognizes that an optimum path for corporate decision making is not exogenously given, but the product of communication. The entirety of all such communications processes forms the managerial discourse. In this process, certain “dominant logics” and “industry recipes” (Spender (1989)) surface as transitory certainties, determining what is progressive, rational and therefore a legitimate business practice at a particular point in time. For example, using a sample of 76 DAX companies, Bühner et al. (2004) show that between 1993 and 1999 the business press played a significant role in legitimizing decisions to introduce value-based management.

A characteristic of management fashions is a pendulum effect: one fashion induces a reciprocal counter-fashion. An explanation for this phenomenon is that management fashions target those areas that are most likely to be fundamental organizational dilemmas (Abrahamson (1996, 274); Nicolai (2000, 281)), e.g., object orientation versus function orientation, efficiency versus flexibility, centralization versus decentralization, or cost orientation versus revenue orientation. Back in 1946 H. Simon had already identified many such dilemmas and shown that there was no general approach to resolving them. These are the areas in which organizations are confronted by contradictions and in which they feel insecure. Management fashions offer a degree of orientation to such areas. Popular management techniques offer in an uncertain situation certainty, by positioning themselves on

one side of the dilemma. Likewise, de-diversification measures also operate within the fundamental dilemma between focus and diversification. As the counter-fashion gathers impetus, the pendulum begins to swing back and the other side of the dilemma assumes more importance.

In contrast to agency theory, the time at which a particular management technique is assessed and begins to be adopted is of central importance to the management fashion theory. As with neo-institutionalism, in management fashions the process of dissemination also follows a pattern of imitation. However, in contrast to neo-institutionalism, maximum distribution does not lead to maximum acceptance. A fashion signals not only conformity, but also progressiveness (Abrahamson (1996)). As soon as a management fashion becomes widespread it begins to lose its progressive nature. As a result, fashions begin to fade after a comparatively short period.

The management fashions concept also explains the process of dissemination of a technique, whether or not it has been proven efficient. The techniques need not be inefficient, but they do inherently contain the danger of overemphasizing particular factors for success. This danger is greatest when the fashion is at its most popular.

Capital market actors are not excluded from the management fashion-setting process. The role of analysts and shareholders' representatives is to identify and prevent deviations from the course of market value maximization. They are supposed to suppress aberrant management behavior (Marris and Mueller (1980)). However, it is questionable whether the capital market actors are able to determine the optimal path independent of the managerial discourse. From this vantage point, the question arises whether the capital market suppresses only sub-maximal managerial behavior or any aberrant behavior altogether. In fact, the capital market is seen as contributing to a homogenization of business strategies (Fligstein (1990)). This effect can promote the dissemination of management fashions.

There are several indications that de-diversification measures are subject to the dynamics of management fashions. Together with the pendulum swing, the corresponding management discourse is clearly identifiable. In the late 1960s, the portfolio matrix advanced to become one of the most popular strategy tools. In the 1970s, 200 of the Fortune 500 companies made use of this management fashion (Bettis and Hall (1981)), as developed and advocated in its different manifestations by the Boston Consulting Group, McKinsey, and other consulting companies. In Germany, this tool also became very popular (Coenenberg and Günther (1990)).

The counter-movement that marked the swinging back of the pendulum is also identifiable, and also shows the characteristics of a management fashion. The core competence concept rapidly gained popularity from 1990 onwards. Many actors of the "management fashion-setting community" (Abrahamson (1996)), such as consultancies, the business press, "gurus", business schools, and high-profile corporations, etc., promoted this management approach. The work of Prahalad and Hamel, most notably their 1990 article in the *Harvard Business Review* (German translation: 1991), and later the bestseller book on the same topic (Hamel and Prahalad (1994)) both show the typical characteristics of

management fashions literature (Kieser (1995; 1996)). Thus, management fashion theory can also explain a de-diversification wave.

Table 1 gives an overview of the theoretical approaches described and their differences.

Table 1: A comparison of different theories for the dissemination of management practices

	Agency Theory	Neo-Institutionalism	Management Fashion Theory
Pattern of dissemination	disciplining through the shareholders	institutionalization; imitation	as before, additional pendulum swings
Central motive	alignment of interests	social construction of reality	managerial construction of reality
Initiator of dissemination	changes in the incentive structures	efficiency of early adopters	management dilemmas, also previous fashions
Efficiency of a management innovation	given	initially present, later ambivalent	ambivalent
Concept of corporate strategy	exogenous	common cognitive schema	as before, modified by managerial discourse
Motives of the managements	own interests	striving for legitimacy	progressiveness, relief of security, legitimacy, micro-politics
Role of the capital market	capital market streamlines efficient business practices	gives legitimacy	participant in the "management fashion-setting community"

5 HYPOTHESES

5.1 FREQUENCY OF DE-DIVERSIFICATIONS

Both of the views presented here suggest that since 1990, there has been an increase in the number of de-diversifications in Germany. Agency theory attributes this development to the growing influence of the shareholders and a stronger alignment of interest. However, we note that the German capital market differs in a number of ways from the U.S. model (Dietl (1998)). Nevertheless, there are several initiatives that aim to reduce the agency problem. A number of corporate governance reforms have been passed, the shareholder value approach has become more widespread, information publication obligations have been extended and adapted in line with international standards, and many companies have introduced stock-based compensation (e.g., Tuschke and Sanders (2003), Bühner et al. (2004)). Although these developments do not equate to a total alignment with the U.S. model, compared with the 1980s, the position of shareholders has improved significantly.

We can also identify a change in incentive structures. According to Wittington et al. (1999), in the 1960s and 1970s many German corporations were also often overdiversified. As described above, agency theory suggests the change in incentive structures should have brought about a corrective movement, with an increase in de-diversifications as the expected outcome.

The management fashion theory suggests the same but for other reasons. The management fashion of core competencies is a counter movement to the firm-as-portfolio model that dominated during the 1970s. Prahalad and Hamel published their influential article on core competencies in 1990. On closer analysis of the text, a general recommendation to de-diversify does not follow directly from the core competence concept. However, for our purposes it is more important to note how the concept was interpreted in practice. It is not unusual to find that firms implement management fashions in ways that differ slightly from the original concept, or that apply it in a simplified form (Benders and van Bijsterveld (2000)). In the case of the core competence concept, it was interpreted in practice as a concentration on the core business (Davis et al. (1994))².

For different reasons, both agency theory and the management fashion theory suggest that we could have expected an increase in de-diversifications from the beginning of the 1990s onwards. The efforts to establish more efficient corporate governance structures in Germany have been intensified successively over the past decade to the present day (Dietl (1998)). Therefore, we can expect the disciplining effect of the capital market between 1989 and 1995 to be less pronounced than between 1996 and 2002.

The core competence concept was first published in 1990. In a study of 16 management fashions, Carson et al. (2000) find that most fashions reach their maximum after an average of 11 years. The life-cycle duration of management fashions varies considerably, with the cycles growing shorter in more recent years. The assumption that the core competence concept also reached its maximum after 11 years is to be verified in a subsequent analysis of the core competence discourse. That notwithstanding, the theory of management fashion theory also suggests that between 1996 and 2002, we should have expected more de-diversifications than in the interval beforehand. Therefore, for both theoretical points of view the following should apply:

Hypothesis 1: *More de-diversifications can be observed between 1996 and 2002 in Germany than in the period 1989-1995.*

5.2 DE-DIVERSIFICATIONS FROM AN AGENCY VIEW

Taking the agency theory approach, the existence of overdiversified businesses can be attributed to managers who have acted in their own interests at the cost of organizational

2 An analysis using a random samples from the Lexis Nexis Database shows that in media articles on de-diversification, the core competence approach is mentioned 36 times more often than are articles on divestitures from the core business area.

efficiency. The reduction in the degree of diversification can be explained by a better alignment of manager and owner interests. This alignment improves the market value of the company. Therefore, we should expect that a de-diversification produces positive announcement effects:

Hypothesis 2a: *De-diversifications by German corporations between 1988 and 2002 should on average result in significant positive announcement effects.*

If the de-diversifications are the result of a reduction of the agency problem, then the positive announcement effects reflect an improvement in efficiency. The increase in efficiency may vary from company to company, but we cannot expect that they depend on which year the de-diversification took place:

Hypothesis 2b: *The time of the announcement has no influence on the announcement effects.*

5.3 DE-DIVERSIFICATIONS FROM A MANAGEMENT FASHION VIEW

The capital market actors are also important from the management fashion perspective, not as institutions ensuring higher market efficiency, but as influential in process of institutionalization (Kieser (1996)).

The core competencies concept exhibits typical characteristics of a management fashion, a bias towards one potential factor of success, use of “buzz words” and tautologies, an absence of empirical basis, a specific “rhetoric of application” characterized by success stories, and the promise of extreme improvements in performance (e.g., Raub (1998)).

The pattern of popularity of such management fashions typically follows the shape of a bell-curve (Kieser (1996)). As a result of the imitation patterns typical of fashions, the popularity of a fashion at time t is influenced by its popularity at time $t-1$. This interrelation suggests a continual rise in popularity until such time as either full market penetration is reached or another supposedly more efficient management innovation surfaces. However, in contrast to the diffusion theory, the decline of the management fashion is inherent within itself. As it gains in popularity it loses progressiveness and therefore heralds its own decline:

Hypothesis 3a: *The core competence discourse develops according to the typical bell-curve pattern observed for management fashions, with a continual rise in popularity and a clearly identifiable maximum.*

Management fashions change the “mental models” that govern what is regarded as rational and progressive management practice at a particular point in time. Therefore, they are relevant to decision-making. The dissemination of a management fashion and the activities they induce must be closely related:

Hypothesis 3b: *The popularity of the core competence discourse in Germany should follow the frequency of de-diversification activities.*

The fact that other companies also follow a particular management fashion increases its legitimacy. As a result, the frequency of a measure and a positive response to it are related. Nevertheless, imitators do not just orient their activities according to the measure itself, but also according to whether it is supposedly successful or not. Announcement effects are a clear indicator of this. The transitory nature of a management fashion, as well as the role played by imitation processes, means that the timing of a particular measure has a significant effect on the announcement effects. Therefore, the following should apply:

Hypothesis 3c: *The announcement effects of de-diversifications are not randomly distributed but instead also follow the pattern of a bell-curve.*

6 SAMPLE AND METHODS

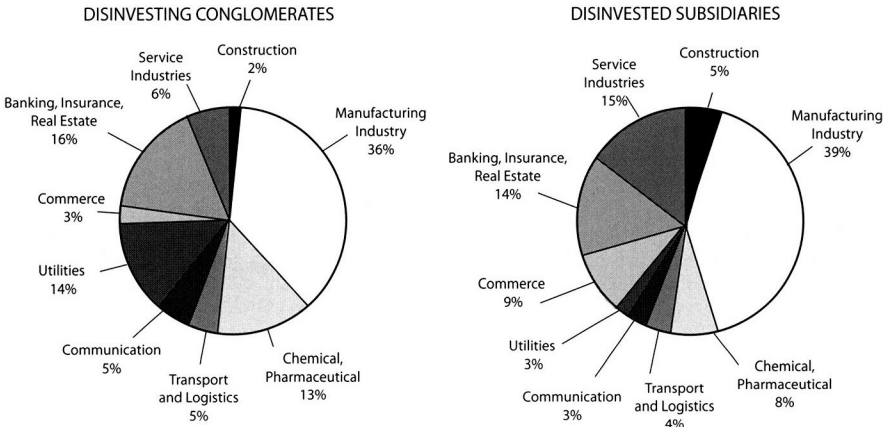
Our sample consists of all divestitures among German publicly listed companies between January 1998 and December 2002 that are listed in the Thomson Financial SDC International Mergers and Acquisitions Database and in which the holding company sold more than 50% of the shares of a subsidiary³. We do not include liquidations or the creation of new subsidiaries where firms pass shares on to existing shareholders (spin-offs) in the sample.

For the purposes of analyzing the announcement effects, we select a subset of the sample according to the following criteria:

- The selling company is listed on the stock exchange for a minimum of 120 days before and 20 days after the announcement of a disinvestment⁴.
- The transfer of corporate control is not part of a merger between the subsidiary and another company. In the case of such mergers, we cannot necessarily assume a disinvestment motive on the part of the parent company. Likewise, we exclude transactions in which the buyer company also belongs to the parent conglomerate.
- No bankruptcy proceedings have been initiated for the selling company before the transaction announcement. We exclude disinvestments in the case of corporate dissolution because they have a different motivation for disinvestments that result from focusing strategies, and exhibit a corresponding reaction from the capital market.
- The transaction is complete.
- A total of 360 transactions fulfill these criteria. *Figure 1* shows the distribution of the disinvestments across different industries.

3 We verified the information presented in the database, including time of announcement and transaction related data, against information in the media (*Handelsblatt* and *Frankfurter Allgemeine Zeitung*) and on the internet, and where necessary corrected it.

4 Only when this condition is fulfilled can announcement effects be determined according to the risk-adjusted market model described below.

Figure 1: Distribution of disinvestments according to industry

For the selling company, we obtain information on daily share price returns from the Bloomberg Professional Database. For transactions prior to 1990, we use the stock price information from Datastream. In both cases we adjust the data to exclude the effects of changes in the capital stock.

We determine the differentiation between de-diversifications on the one hand and disinvestments of parts of the core business on the other as in previous analyses by Eckbo and Thorburn (2000) and Halebian and Finkelstein (1999), by using the SIC code classification. Where the first two digits of the SIC code of the selling and buying companies correspond with one another, we assume a disinvestment of parts of the core business. In all other cases we assume a de-diversification measure. Montgomery's (1982) examination of SIC-based measures of the degree of diversification confirms the validity of this approach.

We determine the reactions of the capital market to disinvestment announcements by applying the event study method. We use a risk- and market-adjusted model as follows:

$$R_{jt} = \alpha_i + \beta_i + \varepsilon \quad (1)$$

where

- R_{jt} : rate of return for security j on day t
- R_{mt} : rate of return for the market index on day t
- α_i, β_i : regression constant, regression coefficient

In comparison to other market models, particularly to the mean-adjusted model or the market-adjusted model, the market- and risk-adjusted model provides results with greater statistical power (Brown and Warner (1985, 12)). For this reason, the market- and risk-adjusted model is particularly suitable for the analysis.

We estimate the parameters of the market model using an OLS test for a period of 120-60 trading days before the event⁵. We set the event day as the date of the announcement of disinvestment. We use the DAX100 as our market index.

Based on the regression parameters determined for the estimation period, we calculate the expected rate of return in a second stage:

$$\hat{R}_{jt} = \hat{\alpha}_j + \hat{\beta}_j R_{mt} \quad (2)$$

We define the abnormal rate of return on day t (AR_{jt}) induced by the announcement of the disinvestment as the difference between the realized and expected rate of return.

$$AR_{jt} = R_{jt} - \hat{R}_{jt} \quad (3)$$

We choose the interval $[-1;1]$ as the event period, i.e., the period from the day before to the day after the event. To capture any early or later capital market reactions we also analyze the cumulative abnormal returns (CAR) for the intervals $[-20;20]$, $[-10;10]$, $[-5;5]$, $[-2;2]$ and $\{0\}$.

We calculate the cumulative abnormal rate of return for the different event periods $[t_1;t_2]$ and the average abnormal rate of return (AAR) on day t as follows:

$$CAR_{jt} = \sum_{t=t_1}^{t_2} AR_{jt} \quad (4)$$

$$AAR_{jt} = \left(\frac{1}{n}\right) \sum_{j=1}^n AR_{jt} \quad (5)$$

where

$$\begin{aligned} t_1, t_2 & : \text{time limits of the interval; } |t_1|, |t_2| \leq 20 \text{ days.} \\ n & : \text{number of securities considered} \end{aligned}$$

As test statistic, we use the measure z as put forward by Boehmer et al. (1991) (see *Appendix I*) to determine whether the derived abnormal rate of return differs significantly from zero. This measure extends the typical test statistics such as those from Brown and Warner (1980) or Patell (1976), in that it also takes into account the increased variance induced as a result of the announcement event⁶.

To track the dissemination of management discourse, we apply a method, also used in other comparable studies, which analyzes literature databases (Abrahamson and Fairchild

- 5 Some of the event studies use estimation periods of over 200 days. In a comparison between 100-day and 200-day estimation periods, Dodd (1980) is unable to discover any significant difference in the regression parameters. The period chosen here corresponds to approximately half a year.
- 6 As Brown et al. (1988; 1989) note, many events lead to a change in the risk and return of the respective securities. Boehmer et al. (1991) show that even small changes in stock market variance can lead to significant distortions when using traditional test statistics.

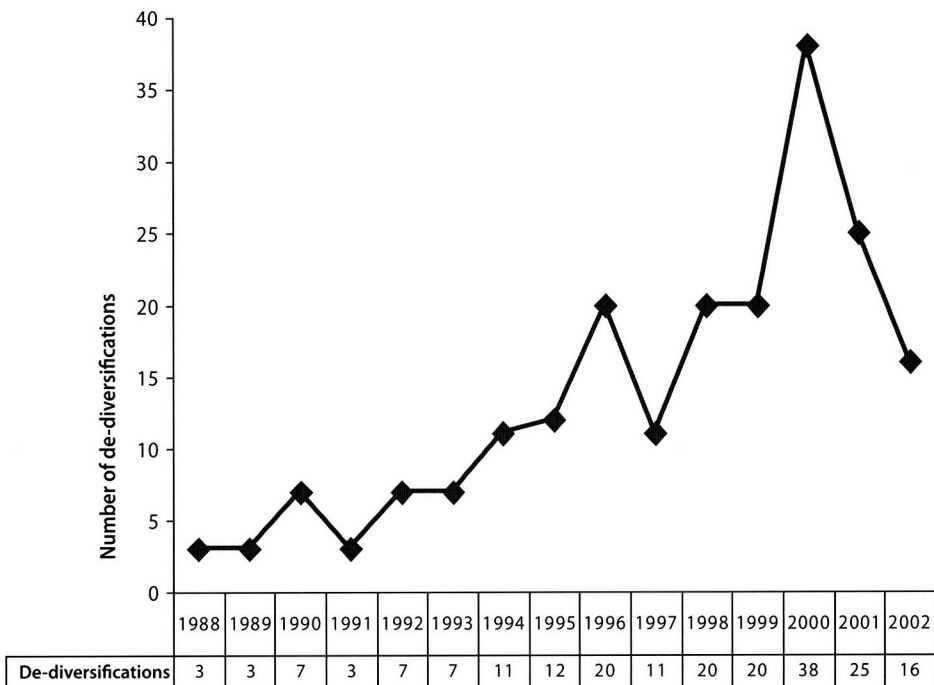
(1999); Benders and van Bijsterveld (2000)). As we are most interested in observing the degree of management discourse put into practice, we use the Lexis Nexis Database with the setting "German News". This database contains the relevant German-language business press, including 60 newspapers such as the *Börsenzeitung*, various trade journals, and daily papers such as the *Frankfurter Allgemeine Zeitung*. The search terms used were "Kernkompetenz" (core competence) or "Kernkompetenzen" (core competencies). We determine the number of publications containing these terms for each year.

7 RESULTS

7.1 THE DYNAMICS OF DE-DIVERSIFICATION ACTIVITIES

According to hypothesis 1, the number of de-diversifications between 1996 and 2002 should exceed that of the preceding interval between 1989 and 1995. *Figure 2* shows the frequency of de-diversifications over the entire period. A total of 50 de-diversifications take place in the first interval, 150 in the second. We use a Kolmogoroff-Smirnov test to check whether the development of the pattern of frequencies varies significantly from a uniform distribution. We could reject the null hypothesis (uniform distribution) with a test value of $D = 0.4338$ at a level of 5%. Therefore, hypothesis 1 is confirmed.

Figure 2: Frequency of de-diversification measures between 1988 and 2002



In the period of observation, the de-diversification wave reaches its maximum in 2000 and, with the exception of 1991 and 1997, increased steadily until 2000.

To test our hypotheses, we must ascertain whether the results can be attributed to agency or management fashions theory, or whether they reflect nothing more than a general increase in transaction activities as a result of changes in the legal environment or better skills in implementing M&A measures. For this reason, we also examine the frequency of disinvestments from core business areas (4-digit SIC codes). We find that in this area, far fewer transactions take place, and that they are distributed unevenly across the entire period of observation. 45% of the core business disinvestments take place in the first half of the 1990s, 55% in the second half. This observation indicates only a slight general market effect. Therefore, we can regard the development shown in *Figure 2* as not resulting from a general increase in disinvestment activity.

7.2 THE DE-DIVERSIFICATION WAVE AS SEEN FROM AN AGENCY THEORY POINT OF VIEW

According to hypothesis 2a, an average positive abnormal rate of return would confirm the agency theory. For the event interval $\{0\}$ for the market- and risk-adjusted model, we observe a positive abnormal rate of return at a 5% level of significance, although the overall effect is low (0.41%). For the time event interval $[-1;1]$ the effect is also slightly positive (0.2%), but not significant. By comparison, the disinvestments from the core business (4-digit SIC code) show no significance in both event intervals.

A possible interpretation of these results is offered by the “financing hypothesis” (Lang et al. (1995)). Under particular conditions, disinvestments can be regarded as an expression of an agency problem. When no other sources of finance are available, managers may sell parts of a company to pursue their own objectives, although these objectives may differ from those of the shareholders. Lang et al. (1995) show that this sell offs are put forward when companies exhibit low performance. When the cash flow received as a result of the sale is not passed onto the shareholders, this is an indication of an agency problem. In this case, we cannot expect positive abnormal rates of return. It would be interesting to determine through further research exactly how much this counter-effect overlays the positive announcement effects in German companies as observed for instance by Berger and Ofek (1999). However, the financing hypothesis does not differentiate between de-diversifications and disinvestments from core business areas. The overall weak positive effects could be explained in part by the financing hypothesis. However, when compared with those in the core-business area, the positive abnormal rate of return for de-diversifications appears to correspond more with the Berger and Ofek (1999) approach.

Table 2 shows an overview of the level of abnormal rate of returns for de-diversifications for the different event intervals.

Table 2: Abnormal rate of return for de-diversification measures

Event interval	Cumulative abnormal rate of return	Min	Max	Pos.	Neg.	Standard deviation.	Z-value	p-value
[-20];[20]	1.9648%	-68.0759%	90.7638%	96	80	0.2096	0.9096	0.3630
[-10];[10]	0.0294%	-59.7924%	42.8958%	95	81	0.1351	0.7089	0.4784
[-5];[5]	-0.1323%	-45.3187%	45.8839%	95	81	0.1032	0.9492	0.3425
[-2];[2]	0.4006%	-31.9836%	34.6400%	94	82	0.0700	1.4698	0.1416
[-1];[1]	0.1969%	-22.6697%	34.8939%	94	82	0.0604	1.3140	0.1888
{0}	0.4056%**	-25.3476%	15.4604%	104	72	0.0373	2.1217	0.0339

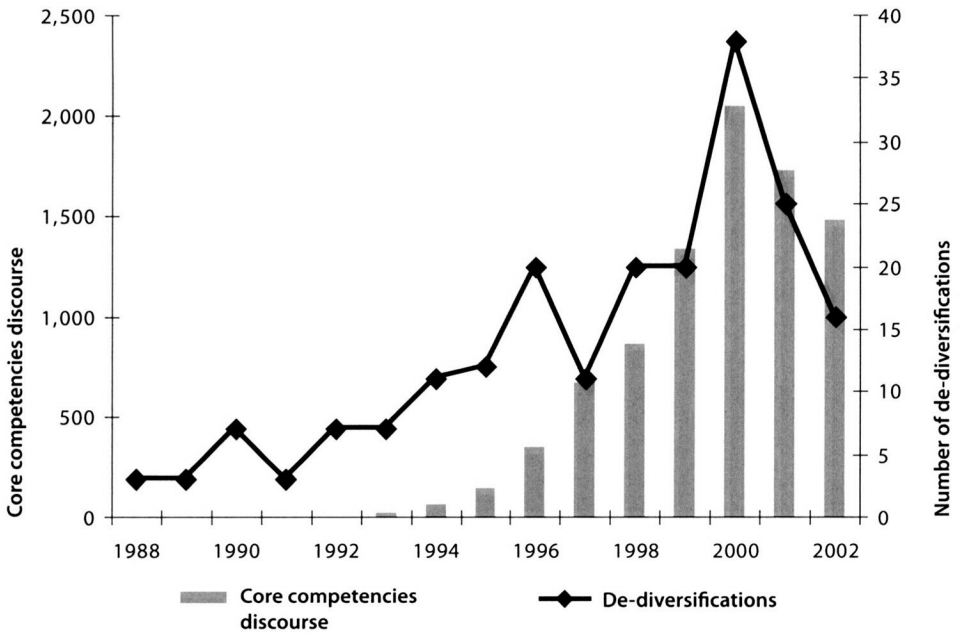
Not only the average level of abnormal rate of return, but also its development over time, is important. According to the agency view and hypothesis 2b, the level of the abnormal rate of return should not depend on the time of de-diversification. In the first instance, we cannot observe this relationship on a statistically significant level. We will examine this aspect in more detail together with the discussion of hypothesis 3c.

7.3 THE DE-DIVERSIFICATION WAVE AS SEEN FROM A FASHION THEORY POINT OF VIEW

Our analysis of the data of the Lexis Nexis database shows that the core competence fashion reached its maximum ten years after its announcement, which corresponds to the estimation based upon the data from Carson et al. (2000), see *Figure 3*. Since 2000, there have been indications that the core competence wave is subsiding and that the pendulum is beginning to swing back. Leading strategy consultants are now arguing for a change in direction. Recently, Harper and Viguerie (2002, 30) from McKinsey and Company asked "Are you too focused?" and suggested that companies should once again begin to occupy the "particularly fertile middle ground between focus and diversification". The Boston Consulting Group also supports this trend: "One should finally close with the myth of focusing" declared its Head in Germany, underpinning his claim with a BCG study (Heuskel (2002, 23) (own translation)).

Figure 3 shows the development of the core competence discourse and of de-diversifications since 1990. The continual rise in popularity is clearly evident up until its maximum in the year 2000, and its decline up until the end of the period of observation. The development exhibits a bell-shaped curve and thus supports hypothesis 3a. A weakness in the existing literature on management fashions is that the bell-curve has not yet been mathematically defined, so a formal verification test is not possible.

Figure 3: Core competence discourse and frequency of de-diversifications among publicly listed companies in Germany since 1988



The distribution of the frequency of de-diversifications correlates with the dynamics of the core competence discourse (significant at a 1% level). Both developments peak in the year 2000 and subside thereafter. This observation confirms hypothesis 3b.

Using a multivariate regression analysis, we also analyze whether the frequency of de-diversification measures might be significantly influenced by changes in the regulatory environment. The most important reforms during this period were the law for control and transparency within corporate area (KonTraG), the German Transparency and Disclosure Act (TransPuG), and the tax exemption of capital gains derived from the sale of shares (Caspari (2003, 5)). The latter two only came into force in 2002, so we can leave them aside in this study.

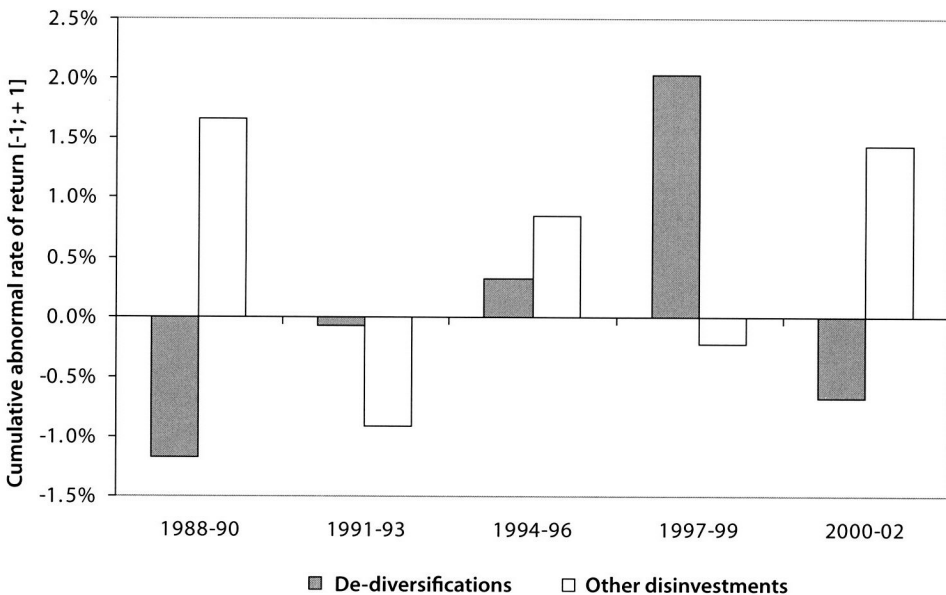
In addition we checked whether there is a relation between the average transaction value and the frequency of disinvestments. When we include the respective control variables, the correlation between frequency of de-diversifications and the dynamics of the core competence discourse remains significant (at a 5% level). Introducing the KonTraG has no significant influence on de-diversification activities. Likewise, we could find no significant relation between the average transaction value and frequency of de-diversifications. The R^2 of the regression is relatively high at 0.78. Therefore, the results of the multivariate analysis do not indicate that the frequency of de-diversifications is caused primarily by regulatory effects or changes in the average transaction volume.

Hypothesis 3c focuses on the assessment of de-diversification measures by the capital market as a possible factor of the management fashion community. It suggests that the announcement effects should also follow the management fashion cycle, and that the time of a de-diversification announcement would then be relevant.

Figure 4 shows the change in abnormal rate of return over time, and compares that of de-diversifications to other disinvestments⁷.

In Figure 4, the cumulative abnormal rates of return show that hypothesis 3c can be confirmed and hypothesis 2b rejected. The graph shows that the highest level of abnormal rates of return occurs around the same time as the core competence discourse approaches its peak, but the other disinvestments exhibit no systematic pattern of dependency. This result is significant for the time period 1997-1999 (at a level of 10%) (see Appendix II). Additionally, a multivariate regression analyses was performed taking account of variables such as time, transaction volume, and form of financing. It does not show any significant relation between those variables and abnormal rates of returns for de-diversifications. In the different analyses, the maximum R^2 value is 7.9%.

Figure 4: Cumulative abnormal rate of return for de-diversifications and other disinvestments



⁷ Due to the low value of n for the individual years, the period of observation was divided into blocks of three years for the following statistical analysis.

Nevertheless, our results should be interpreted with caution. The overall level of significance is relatively low, which we can attribute to the comparatively low value of n . Therefore, we cannot offer a clear confirmation of either hypothesis 2b or for the alternative hypothesis 3c.

7.4 SUMMARY OF RESULTS

Table 4 provides an overview of the results of the empirical study. We can demonstrate only weak support for the agency theory explanation. This result differs from the majority of U.S. studies, which show that the capital market responds positively to focusing strategies (Berger and Ofek (1999); John and Ofek (1995)).

On the basis of the data in our study, it does not appear that a stronger alignment of owner and manager interests is an important driver of focusing measures in Germany. We also note that in certain conditions, disinvestments can also be in the interests of management, as described by the financing hypothesis. Furthermore we cannot conclusively determine to what degree the German capital market (viewed by many authors as still underdeveloped) is actually able to effect such a stronger alignment of interests. For instance, the large number of cross-holdings, the unclear effect of German stock options programs, or the stronger regulation of takeovers and the lower disciplining effect of the market for corporate control must be considered. Thus, we expect that other factors may have furthered the wave of de-diversifications.

Table 4: Summary of results

Hypotheses	Test results
H1: More de-diversifications can be observed between 1996 and 2002 in Germany than in the interval 1989-1995.	confirmed
H2a: De-diversifications by German corporations between 1988 and 2002 should on average meet with significant positive announcement effects.	confirmed only for the event period {0}
H2b: The time of the announcement has no influence on the announcement effects.	unclear: results only partially significant
H3a: The core competence discourse develops according to the typical bell-curve pattern observed for management fashions, with a continual rise and a clearly identifiable zenith.	confirmed
H3b: The popularity of the core competence discourse in Germany should follow the frequency of de-diversification activities.	confirmed
H3c: The announcement effects of de-diversifications are not randomly distributed but instead also follow the pattern of a bell-curve.	unclear: results only partially significant

It does appear that management fashions indeed play a role, and that the individual actors (e.g. analysts, managers) are influenced differently. The results support the view that top managers in particular orient their actions to managerial discourse. This tendency is demonstrated by the correlation between core competence discourse and de-diversification activities. The results are also consonant with the empirical research that focuses on the imitative behavior of managers (Abrahamson and Fairchild (1999)). These studies show that capital market actors such as analysts and institutional investors are also subject to the fashion cycles. Also, in Germany, the de-diversifications have the highest abnormal rate of return at the peak of the core competence fashion. However, in general it appears that the capital market actors are less strongly influenced by management fashions than are the managers themselves (and possibly less than the managers expect). As a result, the influence of the core competence discourse on the abnormal rate of return is low over the entire period of observation.

8 CONCLUSIONS

Many empirical studies have shown that a veritable wave of de-diversifications took place around the world. Most explanations for this phenomenon come from finance research and agency theory in particular. The degree to which we can observe comparable developments for German corporations has not been sufficiently investigated. In this article we have analyzed whether a similar wave of de-diversifications took place in Germany, too. The empirical data confirms the existence of such a wave for Germany. In comparison to the U.S., the developments in Germany lag by approximately five to ten years (Williams et al. (1988); Markides (1992)).

The existence of such a wave corresponds with both the agency theory and the neo-institutional/management fashion theory. The first approach explains the increasing number of de-diversifications with an increase in the efficiency of the German capital market. According to the second approach, it is a result of the fashion cycle of the management discourse surrounding core competencies. The management fashion model describes the downswing of the de-diversification wave more precisely than does the agency view. The data demonstrate a close correlation between the frequency of de-diversification measures and the popularity of the core competence discourse.

To test which of these approaches has more power to explain the developments, we performed an event study. Agency and management fashion theories offer competing hypotheses on the expected cumulative abnormal rate of return. Our study does not provide clear results. The average significant positive abnormal rate of return corresponds to the agency theory, but neither does it contradict the management fashion theory.

Perhaps of more relevance is the distribution of the abnormal returns over time. A multivariate analysis demonstrates that at least a weak relation does exist between the level of the abnormal rate of return and popularity level of the core competence discourse. The highest abnormal rate of return for de-diversification measures occurs at the peak of popularity of the core competence management fashion.

Nevertheless, we note that the level of significance of these results is low, so that the data do not conclusively demonstrate the greater validity of one or the other approach. This ambiguity is all the more evident when one considers that both concepts can be integrated to a certain degree. For example, managers can use the rhetoric of the managerial discourse to pursue their own interests. At the same time, the capital markets influence which management innovations become popular which means that the fashion discourse influences the owner-manager constellation and vice versa. More research is needed for a better understanding of this interaction.

However, the stronger the influence of management fashions on corporate strategies and on the assessments of relevant capital market actors, the more we should question whether capital market-oriented management can contribute to improving organizational efficiency. In this connection, the problem of homogeneous strategies, as noted by neo-institutionalists, is an important aspect. As corporate strategies become ever more similar as a result of imitation processes, the danger increases that competitive advantages erode.

Because of its economic tradition, capital market research operates often with organization-free models. This approach undervalues the idea that what constitutes the "right" corporate strategy is not given externally. In most situations, the "right" strategy develops as a result of interactions between the relevant company internal and external actors. On the other hand, very few organizational or strategy theories take into consideration how capital market actors intervene in strategic decision-making processes. The analyses contained in our paper argue for a stronger integration of research in organizational behavior and finance.

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APPENDIX

I. TEST STATISTIC Z ACCORDING TO BOEHMER ET AL., (1991, 269):

$$(6) \quad z = \frac{\frac{1}{n} \sum_{j=1}^n SR_{jt}}{\sqrt{\frac{1}{n(n-1)} \sum_{j=1}^n \left(SR_{jt} - \frac{\sum_{j=1}^n SR_{jt}}{n} \right)^2}}$$

$$(7) \quad SR_{jt} = \frac{AR_{jt}}{\hat{s}_{jt}^*}$$

where

$$(8) \quad \hat{s}_{jt}^* = \hat{s}_j \sqrt{1 + \frac{1}{T_j} + \frac{(R_{mt} - \bar{R}_m)^2}{\sum_{\tau=1}^T (R_{m\tau} - \bar{R}_m)^2}}$$

AR_{jt} : Abnormal rate of return for security j on day t

SR_{jt} : Standardized abnormal rate of return for security j on day t

\hat{s}_{jt}^* : Adjusted estimated standard deviation for abnormal rate of return of security j for day t in the event period

\hat{s}_j : Standard deviation of abnormal rate of return of security j , estimated on the basis of the abnormal rate of return for the estimation period

T_j : Number of days in the estimation period of security j

R_{mt} : Rate of return for the market index m on day t of the estimation period [-20;+20]

$R_{m\tau}$: Rate of return for the market index m during the estimation period

\bar{R}_m : Mean rate of return for the market index m during the estimation period

II. CUMULATIVE ABNORMAL RATE OF RETURN ACROSS THE PERIOD OF ESTIMATION
(EVENT INTERVAL [-1;1])

	CAR		Max	Pos.	Neg.	Standard deviation	Z-value	p-value
De-diversifications								
1988-90	-1.1741%		5.6151%	4	8	0.0379	-1.2155	0.2242
1991-93	-0.0827%		5.9569%	4	6	0.0349	-0.1708	0.8644
1994-96	0.3190%		6.9930%	20	18	0.0262	0.4053	0.6853
1997-99	2.0362%*		34.8939%	28	15	0.0705	1.8495	0.0644
2000-02	-0.6865%		12.0394%	38	35	0.0701	-0.2228	0.8237
Other disinvestments								
1988-90	1.6600%	-2.3198%	7.2520%	5	2	0.0307	1.3195	0.1870
1991-93	-0.9110%*	-13.8182%	9.9525%	8	13	0.0450	-1.7717	0.0764
1994-96	0.8469%**	-3.8926%	11.9393%	32	22	0.0290	2.2482	0.0246
1997-99	-0.2225%	-19.6648%	8.4676%	28	17	0.0506	0.3268	0.7438
2000-02	1.4334%*	-30.0938%	40.0515%	29	27	0.0917	1.7828	0.0746