

Briglauer, Wolfgang

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MOTIVES FOR FIRM DIVERSIFICATION:

A SURVEY ON THEORY AND EMPIRICAL EVIDENCE

WOLFGANG BRIGLAUER

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Introduction and definitions

Firm diversification has been studied in several different fields of academic research. Strategic management studies analyse the impact of different kinds of diversification policies (e.g. related vs. unrelated corporate diversification) on firm performance. The key concern of the finance literature is the search for synergies, in cases where such efficiency gains can not be realised on the operational side of the corporation. Instead, diverse capital market imperfections are necessary to justify economically diversifying moves. Finally, within the traditional "structure-conduct-performance" paradigm industrial organisation research tried to find out whether diversification, as an explanatory variable, significantly influences firm performance or not.

If one considers all the arguments of these approaches, it will be recognised that it is almost impossible to establish a theory of diversification within the neo-classical framework. At best multiproduct firms can be considered equally efficient compared to several single product firms, given that market contracts are perfect substitutes for internal production arrangements¹.

As it is the main focus of this article to list possible motives and explanations of firm diversification, the question arises, which categorisation should be used. One could simply arrange such arguments according to their academic background, where the most important fields of research have been introduced at the beginning. An alternative categorisation would rest on the efficiency implications of diversification strategies. Instead of these, in this article diversification motives are divided into the following groups: synergy-, agency- and market power view². Only the synergy

¹ See Teece (1980, 1982), who introduced this argument first, according to my knowledge.

² A quite similar perspective can be found in Montgomery (1994), Bühner (1993), pp. 306 and Beattie (1980).

approach is consistent with profit maximisation (as a firm objective, which is possibly opposed to managerial interests) and efficient resource allocation. The market power view is inconsistent with allocative efficiency, whereas the agency view lacks both of these requirements.

Before these issues can be discussed in detail and as a matter of thoroughness some other aspects that surround diversification strategies have to be mentioned. First of all, one has to ask how firm diversification is actually defined. Unfortunately, this task appears to be anything but straightforward. In one of the earliest definitions Ansoff³ required that firm diversification creates simultaneously new products and markets. Obviously the empirical and theoretical value one derives from this definition is severely limited due to the arbitrariness inherent in expressions like "new products/markets". Other definitions refer to diversification motives, diversification as a way to achieve demand growth or to the conglomerate acquisition process⁴. A similar source of confusion arises, because some authors⁵ described vertically integrated firms as being diversified, whereas others⁶ explicitly excluded this possibility. Further aspects turn up if one takes into account static and dynamic dimensions as well as spatial diversification⁷. Additionally, demand- and supply orientated definitions can be distinguished. Finally, the related concept of product differentiation should not be omitted either, although no exact distinction between these concepts can be easily seen especially regarding empirical issues⁸. Recalling all these dimensions and aspects of firm diversification, it seems reasonable to conclude, that no single definition that can be generally applied can be given. Instead the individual researcher who deals with diversification strategies has to describe explicitly how diversification is defined and/or measured in his research context. Throughout this text the terms conglomerate, lateral or unrelated diversification are used synonymously on account of the absence of any satisfying distinguishing definition. A firm is called diversified if it engages in several distinct lines of business. Besides I use the term firm diversification to refer to diversification strategies followed by managers as opposed to portfolio diversification performed by outside investors ("home-made diversification"). To keep the concept narrowly, horizontal and vertical linkages among lines of business are excluded, instead the focus is on the theoretical valuation of lateral diversification strategies. As a consequence this work does not take product differentiation into account either. On the other hand, the underlying definition does not cope with supply or demand orientated issues and it is "neutral" with respect to the mode of diversification.

³ See Ansoff (1957).

⁴ See Marris (1964), Bühner (1993), chapter six.

⁵ See for example Koch (1974), p. 207.

⁶ See for example George et al. (1991), p. 76.

⁷ See Böhnke (1976), pp. 20.

⁸ In this situation it is plausible to refer to cross price elasticities. But nonetheless arbitrariness arises when one tries to determine a concrete value that allows to distinguish.

Measurement and ways of diversification

This review is restricted to **quantitative measures**, simply because qualitative measures⁹ are too subjective in nature. All quantitative indicators are based on numerical classification systems that categorise all economic activity. The most elementary way to measure diversification is to count the number of different industry activities a firm operates in. Obviously this measure does not give any information about important diversification characteristics, most notably distribution and relatedness. Because of these crucial limitations other indices have been developed. Some of these reflect the distribution of outputs appropriately¹⁰, other indices were primarily constructed to incorporate the heterogeneity of firm diversification¹¹. Only a few measures treat all three¹² attributes of diversification adequately¹³. In regards to the above discussion on definitions, quantitative measures may be seen as empirical definitions of corporate diversification (for an overview see box 1).

The process of diversification can be realised through **internal or external expansion**. The former utilises product innovation as a means to achieve growth, the later enables the firm to acquire resources immediately and in an organised form by acquiring another firm. Conglomerate take-overs may be more attractive, if quick growth is desirable ("economies of speed), R&D is too expansive in regards with expected product cycles, capacity expansion leads to undesirable price reactions and entry barriers restrict diversification into otherwise highly attractive markets. Internal expansion may be preferred because the associated transaction costs especially concerning co-ordination and integration issues can be expected to be lower¹⁴. Moreover there are always significant risks that accompany take-overs, in the first instance, the danger of overpaying or the existence of long term contracts between the acquired enterprise and its stakeholders¹⁵. In the end the decision will be based on the overall transaction costs specific to each form of expansion.

⁹ See especially the classification system developed by Rumelt (1974). Such measure techniques are primarily used in strategic management studies, whereas empirical research in the field of industrial economics employs quantitative measures. Qualitative indicators categorise product variety with respect to the firms core competencies.

¹⁰ See Berry (1971, 1975), Utton (1977).

¹¹ See Pomfret/Shapiro (1980), Caves et al. (1980).

¹² Gollop/Monahan (1991) list some other desirable properties quantitative measures should have.

¹³ See Jacquemin/Berry (1979), Gollop/Monahan (1991).

¹⁴ See Jacobs (1992), S. 118.

¹⁵ For a more complete discussion compare Hay/Morris (1991), pp. 370.

Box 1: Some diversification indicators

Berry (1971)

$$D_1 = 1 - \sum_{i=1}^n p_i^2 \quad 0 < D_1 < 1$$

p_i is the proportion of output classified to industry i

Jacquemin/Berry (1979)

$$D_2 = \sum_{i=1}^n p_i \ln \left(\frac{1}{p_i} \right) \quad -\ln(n) \leq D_2 \leq 0$$

Pomfret/Shapiro (1980)

$$D_3 = \sum_j s_j v_{ij} \quad 0 < D_3 < 3$$

s_j is the share of the j^{th} secondary product; $v_{ij} = 0$ if the producing firm operates in a single 4-digit industry; $v_{ij} = 3$ if i and j are different 2-digit industries; for intermediate values of heterogeneity, v_{ij} takes the values 1 and 2 respectively

Utton (1977)

$$D_4 = 2 \sum_{i=1}^n i p_i - 1 \quad 1 \leq D_4 \leq n$$

p_i is defined as the proportion of employment in industry i

Gollop/Monahan (1991)

$$D_5 = \frac{1}{2} \left[1 - \sum_i s_i^2 + \sum_i \sum_{k \neq i} s_i s_k \sigma_{ik} \right] \quad 0 < D_5 < 1$$

σ_{ik} provides information on product dissimilarity, based on input cost shares

Gort (1962)

$$D_6 = \frac{B}{(A + B)} \quad 0 \leq D_6 \leq (n-1)/n$$

A is the enterprise's primary output; B is the enterprise's non-primary output

Economic rationales - The synergy view

In standard economic literature the term synergy refers to efficiency gains that emerge from cost advantages. Analysing the multiproduct firm, potential cost advantages are due to joint production facilities. Such cost functions are said to exhibit so called "economies of scope". Although Baumol et al. formalised this concept in an extensive treatise¹⁶, here it should suffice to give some intuitive reflections on this topic. Considering the case of two goods only, "**economies of scope**" exist if the following condition is satisfied:

$$c(y_1, y_2) < c(y_1, 0) + c(0, y_2)$$

for outputs y_1 and y_2 respectively, and the underlying cost function $c(\cdot)$. It should be noticed that the alternative of separate production shown in the above formula implies a certain distribution of output among the independent firms. This observation is necessary in distinguishing the related concepts of economies of scope and "subadditivity". The last one refers to multiproduct cost advantages as well but allows any form of output distribution among separate producers. Although subadditivity and a range of other cost concepts have been described and developed in economic literature, economies of scope play the dominant role in discussing efficiency synergies that are specific to diversified firms.

Though the formal definition allows to be clear on the synergy concept used¹⁷, the sources that make the cost function exhibit economies of scope are not so easy to identify. Furthermore, economic literature dedicated much less attention to this issue compared to the vast discussion on "economies of scale".

Operational synergies

At least four distinct sources that lead to multiproduct cost advantages are obvious. Some inputs have the characteristics of a **public good** in a sense that these inputs can be used in several production processes in a non-competing way without any substantial decline in the value of the public good¹⁸.

Another rationale emerges from **cost complementarities**, i.e. increases in output levels lead to a decline in marginal costs of another output¹⁹. A similar reasoning applies to **external economies**

¹⁶ See Baumol et al. (1982), especially chapters three and four.

¹⁷ Quite often the term synergy addresses revenue increasing effects. Such inconsistencies can be avoided when one strictly refers to the formalised concept of economies of scope.

¹⁸ See Hay/Morris (1991), p. 37 for a concrete example.

¹⁹ See the above footnote.

in the production of several goods²⁰, e.g. successful innovation leads to cost savings in various industries. If these externalities can be internalised by multiproduct organisation, then the incentives of common ownership will warrant efficiency gains.

Eventually economies of scope are due to **shared input facilities**²¹. Obviously shared inputs per se do not imply multiproduct production. Rather these inputs must result in excess capacity that can be utilised productively by firm diversification. These free resources that were just described are generally "private" in nature, insofar their utilisation forestalls other applications. Of course in the next step it is necessary to explain how a firm accumulates free resources²² in the lapse of time. One explanation makes reference to indivisible inputs in combination with market imperfections. Indivisibilities get explanatory power, if the firm's market capacity in existing markets is too low to fully employ the indivisible input. A somehow different argument is related to the simultaneous exploitation of economies of scope/scale. Again, assuming demand restrictions, producing only a single product might prevent the firm from fully exploiting scale economies in a certain stage of the production process (where the common input is used). In this situation joint production is the only way to achieve, or approach, the minimum cost production level. The final argument in this list is due to possible learning effects. It may be the case that independent firms accumulate lower levels of knowledge, the force that drives learning. Once more the argument is that using shared inputs within a multiproduct organisation allows more or quicker learning opportunities, thereby reducing costs more effectively.

Naturally, this list is by no means complete, only the most prominent sources were mentioned²³. Before closing this discussion, a fundamental observation has to be made. The above-mentioned arguments explain diversification only in those cases, where contractual mechanisms fail to employ the inputs that yield economies of scope. An example²⁴ will make this point clear. Assume that a machine can manufacture two products, A and B respectively, and that the joint production of A and B exhibits economies of scope. So, on no account does this particular cost function imply a joint production organisation. Instead, the owner of the machine could rent the machine's services to another firm. Moreover, one can imagine various further contractual constellations that lead to efficient production of outputs among single product firms. To state this another way, particular properties of the underlying cost function do not imply certain organisational characteristics, but cost functions do imply a certain technology. Thus, the conclusion one might derive from the above

²⁰ See Teece (1982), p. 53.

²¹ For a relatively large list of possible shared activities and their positions in the production process see Barney (1997), p. 363.

²² Penrose (1959) dealt first with the interrelationships of spare capacity, resource heterogeneity and firm growth.

²³ See Wolinsky (1986) who brings forward another argument settled in an oligopoly environment. Formal proves, except for the externality argument, can be found in Baumol et al. (1982), the appendix of chapter four; these proves are shown assuming a neo-classical framework.

²⁴ See Teece (1982), p. 48.

discussion that economies of scope imply diversification need not hold²⁵. Instead, market transaction costs must outweigh transaction costs that arise within a multiproduct organisation. Teece identified two input categories where this condition is likely to be met²⁶. The first relates to ***indivisible, specialised and physical assets***. Because of the high degree of specialisation it is near at hand that markets for potential contracting are thin. These poor market opportunities result in situations of bilateral monopoly, where each party endeavours to exert the resulting quasi rents. Obviously this opportunistic behaviour is likely to generate exorbitant transaction costs. In order to avoid such hazards, internal organisation will be preferred because of the superior co-ordination and control possibilities a (conglomerate) top-management has at its disposal.

The second input category refers to ***organisational knowledge***. According to the above discussion on sources of economies of scope, knowledge offers some characteristics of a public good, though it is definitely not a perfect public good, simply because there are congestion costs associated with the transfer of information. On top of this it is generally known that firm specific knowledge is not just the sum of all the human capital of the firms' members, or, to put it differently, it is a "well known fact that the aim of a skilful performance is achieved by the observance of a set of rules which are not known as such to the person following them"²⁷. Thus there is something like a tacit dimension inherent in knowledge. This impossibility to articulate knowledge, even if one excludes opportunistic behaviour, leads to transactional difficulties that make market transfers unattractive²⁸. In contrast, neo-classical theory implicitly assumes that knowledge can be perfectly articulated, because it is stored in a "book of blueprints" to use a commonly cited metaphor.

Though in principle the possible synergy gains that were just described can be gained in most operational areas²⁹, there are some conglomerate-specific risks on the other hand. In particular it has been argued that the amount of operational synergy gains depends positively on the relatedness of diversification³⁰, thus they are generally ascribed to horizontal or vertical business links. This point of view grants only a modest synergy potential to lateral diversification. Spare management capacity may be an exception in so far as it enables conglomerates to gain operational synergies, that could not be used otherwise due to transactional problems using market mechanisms. Although some authors stressed this argument heavily³¹, a firm (the

²⁵ See Teece (1980), pp. 224.

²⁶ See Teece (1980), p. 226.

²⁷ See Polanyi (1958), p. 48

²⁸ See Teece (1980), (1982) who argues more extensively and shows additional hazards that confront market transfers of knowledge.

²⁹ See Jacobs (1992), pp. 140.

³⁰ For references see the section on the empirical evidence.

³¹ See Penrose (1959), according to her theory spare management capacity is one of the main factors that forces firm growth.

shareholders) relying on these synergies alone run(s) the risk of being exposed to opportunistic, utility maximising managerial behaviour. This point that makes reference to principle agent situations is not without relevance, both, in empirical and theoretical studies and therefore it will be discussed in more detail later on. Other transactional difficulties might be associated with unrelated diversification in as much as it is plausible to assume that organisational complexities increase when the degree of relatedness decreases. Hence it follows that , if a firm intends to perform a strategy of corporate diversification, this strategy should not be based on operational synergies alone, because these hardly defend the economic rationale of diversification from the point of view of an equity owner.

Financial synergies

Another class of synergies shifts attention away from operational linkages within a firm towards the financial side and the associated diversification advantages. Although some authors³² strictly distinguish between financial and operational synergies, this view seems to be artificial, because **financial synergies** create economies of scope³³ likewise, by lowering capital costs. Thus cost advantages that emerge from the financial area refer to the same concept of synergy, but due to the extensive discussion in the literature and due to convention, financial synergies will be discussed separately. Needless to say, differential access to capital implies frictions in the financial markets³⁴. Once more, one has to abandon the view of the neo-classical paradigm to warrant reasonable diversification motives.

Whereas single product firms are tied to one or the other form of external finance, conglomerates offer the possibility to erect so called **internal capital markets**³⁵, which reallocate firm capital based on efficiency considerations. More precisely, it is the task of headquarters to let individual business units compete for scarce capital resources and to finance only the most profitable ones ("winner picking"³⁶). Such competition implies that otherwise profitable projects, those yielding a positive net present value, might perhaps run short of financing if overall corporate funds are limited (maybe due to external credit limits). On the other hand there is an obvious potential of efficiency improvement, provided top-management is eager to enforce such improvements³⁷ and has some informational advantages in comparison to external capital markets. Although one can debate whether such informational asymmetries exist³⁸, they ultimately do not suffice to justify the

³² See for example Amit/Livnat (1988), p. 99.

³³ This (static) cost concept refers to total costs.

³⁴ Grossman/Stiglitz (1976) and Stiglitz (1981) provide theoretical justifications for this assumption.

³⁵ This term was coined and developed by Williamson (1975).

³⁶ See Stein (1997).

³⁷ See the discussion on managerial misbehaviour, pp. 11.

³⁸ See Williamson (1975), pp. 145, Barney (1997), pp. 374.

comparative advantages of internal capital markets. The distinctive point is that the central top-management of the multiproduct firm owns the individual businesses inasmuch as it is equipped with control rights over the firm's assets³⁹. Unlike a single product firm that has to recourse to external finance, e.g. bank lending, the residual control rights reside with the management. These statutory corporate powers imply a certain incentive structure that has important consequences for the efficiency rationale of internal capital markets⁴⁰: Due to the residual control rights, top-management can participate on good division performance, thus headquarters has stronger incentives to monitor the individual divisions efficiently. On the other hand, these conglomerate statutes might diminish incentives of division manager's in as much as they do not receive all the rewards of their efforts. Thus the relative extent of these offsetting incentives will be crucial in determining whether internal capital markets offer comparative advantages. Assuming that such advantages exist, this argument is not tantamount to lower capital costs for the individual divisions. Only in those instances where headquarters evaluates positive profit opportunities better than external markets do, will access to lower capital costs be achieved. However, this observation does not preclude the possibility that the conglomerate corporation as a whole gains differential access in the external capital market. This point will be considered next.

It has been asserted that conglomerates result in **lower total firm risk** in that firm diversification can be regarded as a special form of portfolio selection theory⁴¹. Reinterpreting this theory, the combination of less than perfectly positive correlated business segments leads to lower variations in profit streams⁴². Imperfect capital markets may value such risk reduction by lowering the costs of capital of the diversified enterprise. To put it in concrete form, shareholders may require lower expected returns. Alternatively, lenders attach smaller risk premiums due to the reduced likelihood of bankruptcy. Therefore, risk reduction, based on the insights of portfolio theory seems to be a rational candidate to justify diversification. Unfortunately, the theory of capital asset pricing rejects this argument. According to this model, individual shareholders hold perfectly diversified portfolios such that they would be actually worse off, if firm managers diversify in distinct product areas (that generate no operational synergies). To visualise this argument one has to recall the classical assumptions of the capital asset pricing model (CAPM). It refers to perfect capital markets which precludes any frictions such as transactions or bankruptcy costs and assumes that investors are risk

³⁹ See Grossmann/Hart (1986).

⁴⁰ See Gertner et al. (1994), pp. 1212.

⁴¹ See Markowitz (1952).

⁴² One can easily demonstrate this by referring to a simplified example: We assume that two separated firms perform equally well in that they possess the same expected returns and associated variances respectively, thus $E(R_x) = E(R_y) = E(R)$, $\sigma_x = \sigma_y = \sigma$. Recalling the standard formula of the variance of the sum of random variables and inserting the correlation coefficient, ρ , yields the general expression for the total portfolio variance (consisting of two firms): $\sigma_z^2 = \sigma_x^2 + \sigma_y^2 + 2\rho\sigma_x\sigma_y$. If $\rho = 1$, in our example $\sigma_z^2 = 4\sigma^2$ and $E(r_z) = 2E(R)$. Thus the expected return doubles after combining the two income streams but the standard deviation doubles likewise, i.e. under these circumstances no risk reductions are feasible. But for all other cases where $\rho < 1$, the standard deviation will rise less than the mean. For instance, if $\rho = 0$, we see that the standard deviation increases only by the factor $\sqrt{2}$; see Hay/Morris (1991), pp. 490.

averse. In consideration of this theoretical background it is clear that the costs of shareholders spreading their risks (they are actually null) are less than the costs associated with implementing diversification strategies. Besides, shareholders will suffer from corporate diversification in that they lose the possibility to select their utility maximising portfolio structure, i.e. the market portfolio. Thus shareholders oppose diversification whose sole purpose is risk reduction.

However, the assumptions of the CAPM are quite restrictive in that they are not fulfilled in reality. First, **small investors** holding the market portfolio may face significant transaction costs. Therefore, if these investors are not fully diversified, they will value firm diversification positively insofar as it offers for them a cheaper way of spreading risk. Critics objected to this argument by referring to the existence of mutual funds. Ultimately it depends on relative transaction costs if the above point has any merit in explaining diversification. Second, outside investors may possess **inferior information** concerning the performance perspectives of firms. Indeed, estimating profit expectations, variances and covariances seems to be even more impossible for investors than it is for managers⁴³. This objection clearly violates the assumption of informational efficient markets⁴⁴. Third, other studies have shown that introducing market imperfections such as **bankruptcy costs and taxes** suffice to explain real⁴⁵ financial synergies⁴⁶. More exactly, each business unit must be confronted with a positive probability of bankruptcy in each period, bankruptcy costs must be positive, lenders restrict credits according to individual firm bankruptcy risks and interest payments are tax deductible. Obviously the joint probability that several businesses within a conglomerate go bankrupt simultaneously is quite low⁴⁷. Therefore conglomerates might experience a greater debt capacity. In a world of taxes, corporate interest expenses are normally tax deductible which makes debt the preferred source of firm finance. Replacing equity with debt thus lowers total cost of capital. The assumption that credits depend on associated lender's risks may be criticised in that lenders can diversify away their risks by lending to various firms. In doing so, lenders can only assure that there will not be exorbitantly high loan losses at any single point in time, but they can not affect the probability of bankruptcy of a given firm⁴⁸. This argument applies analogously to outside investors. In the end **investors attitudes** towards risks may differ from those postulated by the CAPM, so it might make sense for them to prefer stocks of conglomerate firms as a result of their lower variances, i.e. investors ignore correlations among stocks⁴⁹.

⁴³ See Hay/Morris (1991), p. 523.

⁴⁴ Informational efficiency in the sense described by Fama (1970) is a necessary condition for allocative efficiency of capital markets. In reality capital markets show at best the "semi-strong" form of informational efficiency, see Milgrom/Roberts (1992), pp. 469.

⁴⁵ In this context the term real is used to describe synergies that can not be realised by (diversified) outside investors.

⁴⁶ See Lewellen (1971), Higgins/Schall (1975).

⁴⁷ Provided individual cash flows are less than perfectly positive correlated.

⁴⁸ See Lewellen (1971), p. 532.

⁴⁹ See Hay/Morris (1991), p. 523.

Economic rationales - The agency view⁵⁰

Corporate managers act as agents on behalf of the shareholders. Unfortunately, this relationship is fraught with opportunistic managerial behaviour that leads to serious conflicts, in the sense that managers follow strategies that do not come up to the interests of the shareholders, i.e. profit maximisation. The key observation underlying this concept is that information is distributed asymmetrically among the parties of the agency relationship. To be concrete, shareholders usually can not judge the value of an implemented strategy adequately, neither can they monitor the efforts of managers perfectly. Another point of crucial importance refers to the separation of ownership and control within modern corporations⁵¹. Because of diversification investors' equity shares are widely dispersed and as a consequence no single equity owner has the possibility to enforce value maximisation. Though institutional investors may enforce a certain degree of control, compensation contracts may divert managerial behaviour towards value maximisation through bonus systems, profit sharing or managerial equity holdings⁵², one has to conclude due to the empirical evidence⁵³ that: "...a large part of manager's remuneration comes from stocks and shares. However, size, and therefore the growth rate of the firm, are also important to manager's since there is a correlation between size and manager's pay, and size also contributes to the other objectives of managers, namely status, power and security⁵⁴. That's why the overall situation gives rise to managerial discretion in that managers select their utility maximising policies that need not be consistent with value maximisation. Instead, managers are willing to pay for private benefits by accepting a decline in firm value⁵⁵.

The obvious question is, what is the motivation of managers and what are the corresponding corporate strategies? It has been argued convincingly elsewhere that managerial utility is determined by the growth rate of firm size⁵⁶, whereby the growth rate stands proxy for managerial perquisites, monetary rewards, prestige or other non-economic motives⁵⁷. Shareholders would object growth maximisation strategies whenever firm growth is pursued beyond the value

⁵⁰ The main focus in the agency theoretic work is on external diversification strategies, see Montgomery (1994), p. 168

⁵¹ See Berle/Means (1932).

⁵² See for example Denis et al. (1997) who document a strong negative relationship between the level of firm diversification and managerial equity ownership.

⁵³ See Hay/Morris (1991), pp. 299, Milgrom/Roberts (1992), p. 438.

⁵⁴ See George et al. (1991), p. 45.

⁵⁵ Despite of the detrimental conflicts the functional separation might cause, these organisational structures constitute an efficient form of business organisation. The comparative advantages of the professional management team simply outweigh the resulting agency costs, see Jensen/Meckling (1976). Besides, shareholders gains from risk spreading suffice to compensate them for forgone control losses due to dispersed equity shares.

⁵⁶ See Marris (1964) chapter two, Baldwin (1964); for a survey see Marris/Müller (1980), pp. 41.

⁵⁷ In a static framework managers try to maximise sales by engaging in huge advertising expanses, see Baumol (1958), Williamson (1967).

maximising level. Within the Marris model, the most famous managerial growth model, growth is achieved by progressive diversification programs, in that demand restrictions in existing product markets clearly limit the rate of firm growth.

Managerial theories have been subject to a number of critics that indicated that there are various internal and external forces at work that severely restrict managerial discretion. Internal control mechanisms include the board of directors, compensation contracts or influential equity holders. Because the two last named arguments were already mentioned above, though very briefly, we will address only to the role of the board of directors. First of all, the board of directors⁵⁸ face similar informational disadvantages as compared to the shareholders. Collecting information may therefore be very costly and pays only if board members own significant equity stakes. Another weakness of this control mechanism arises as one considers that board members are often more loyal to managers due to financial interests or other dependencies⁵⁹. Thus the board of directors is a quite imperfect control mechanism to constrain managerial misbehaviour, despite it has, at least nominally, power to hire and fire top-managers and to vote against major projects⁶⁰. On account of the imperfections the internal control mechanisms are afflicted with, shareholders have to rely on external forces. The most extensively discussed argument refers to the market for corporate control. This is the place where managers compete for the rights to manage corporate resources, whereby poorly performing managers are threatened to become a target of a raider⁶¹. After a successful bid, the bidding firm will fire the incumbent management and install strategies that maximise value⁶². This simple argument ignores a lot of aspects that might accompany the take-over process. Just as an example, consider those cases where managers of acquiring firms utilise take-overs as a vehicle to translate their self interested desires into reality as presumed by the managerial theories. In such situations the market for corporate control obviously suffers from allocative inefficiency. There has been a vast literature on the efficiency role and the associated social benefits and costs respectively⁶³, but once again one has to abandon the view that there is clear constraint on managerial choices that enhances efficiency. In particular, the empirical evidence is largely inconsistent with the role of (hostile) take-overs to exert pressure on managers⁶⁴. Other external restrictions refer to product-, manager- or capital markets. If a firm is settled within

⁵⁸ See Shleifer/Vishny (1988), pp. 8.

⁵⁹ In general, managers control the selection of directors, see Mace (1971).

⁶⁰ See Shleifer/Vishny (1988), p. 8.

⁶¹ See Jensen (1988), p. 23.

⁶² Marris (1963/1964) was the first to incorporate the potential threat of a take-over into a model of firm growth. According to his view a valuation rate signals the probability of a hostile take-over, therefore growth is maximised subject to the valuation rate. As a result the profit performance enters the managerial utility function, hence profits will not be ignored in a managerial model either.

⁶³ For a review see Hay/Morris (1991), pp. 510; Jensen (1988).

⁶⁴ See George et al. (1991), p. 60.

a competitive environment, profit maximisation becomes a necessary condition for firm survival, therefore managerial theories implicitly refer to oligopolistic markets. As long as firms are dependent on external finance, capital markets are perfect, in that they allocate funds according to their most productive uses, managers have an incentive to perform as profit maximisers as well. Finally, efficient manager markets measure management abilities adequately, through which poor managerial performances are associated with a corresponding decline in managerial human capital. Again, reflecting potential inefficiencies, one has to draw the following conclusion, that closes this discussion on **managerialism**: "In sum, while it is incorrect to say that managers make investment decisions without regard for market value consequences, it is also incorrect to say that existing monitoring and control devices keep managers from pursuing personal non-value-maximising objectives"⁶⁵.

Whereas diversified shareholders can eliminate most of the unsystematic risk component, managers usually do not have the possibility to spread the **risks** associated with their **human capital**⁶⁶. Instead, manager's risk is closely related to the variation in firm performance, through employment contracts that contain forms of profit sharing. Consequently, managers are hurt more by financial failures or even bankruptcy than shareholders are hurt. As a result riskaverse managers benefit from diversification strategies that generate more stable streams of income. Naturally, the extent of this effect depends on the correlation among the acquired business segments. While such diversification strategies increase managerial utility, they are normally detrimental to shareholders, given that unrelated diversification is unlikely to create operational synergies. The accompanying agency costs decrease shareholder's utility.

Another conflict emerges from the existence of large free cash flows that are at managers disposal ("**free cash flow theory**"⁶⁷), where free cash flow is defined as excess cash after financing all profitable investment projects, i.e. those yielding a positive net present value. Due to efficiency considerations these assets should be paid out to shareholders, but this policy would be to manager's disadvantage. The amount of resources controlled by managers decreases, and corporate independence might decrease as well as managers may have to appeal to external credit markets in order to raise new funds. Therefore, one can expect that managers are likely to use, though inefficiently, free cash flow for low benefit projects. According to Jensen, "diversification programs generally fit this category"⁶⁸. Free cash flow theory applies mostly to firms with poor growth perspectives that offer only few profitable investment opportunities in existing markets. Again managers are actually diverting welfare from shareholders for the benefit of themselves.

⁶⁵ See Morck et al. (1990), p. 32.

⁶⁶ See Amihud/Lev (1981).

⁶⁷ See Jensen (1986).

⁶⁸ See Jensen (1988), p. 34.

In making reference to the above arguments Shleifer and Vishny observed that managers tend to diversify into those markets that apply best to particular managerial skills thereby making it most costly for shareholders to replace incumbent managers. Shleifer and Vishny termed this behaviour as **managerial entrenchment**⁶⁹.

As opposed to the above arguments, the **hubris hypothesis**⁷⁰ assumes that managers are eager to maximise firm value but in trying this they are subject to valuation errors. Managers either overestimate their ability to add economic synergies or they err in estimating the assets of the target firm. Thus conglomerate diversification strategies were not intended as value reducing but "bad managers might make bad acquisitions simply because they are bad managers"⁷¹.

The closing argument describes a situation where owners benefit from managerial risk spreading, i.e. firm diversification. Conglomerate profits can be seen as a **more accurate measure for managerial effort**, because combined income streams are less influenced from random factors⁷². Another source of increase in shareholder's utility rests on the observation that risk averse managers are willing to accept a decline in expected return in exchange for an appropriate risk reduction. Managerial risk reduction provides another beneficial effect in that it brings together owner's and manager's perceptions of risk. Diverging risk perceptions constitute a source of agency conflicts, in so far as ("undiversified") managers possibly object to risky but highly profitable investment projects. Lastly, it is important to notice that owners can not copy these desirable properties by home-made diversification therefore they create real synergies.

Economic rationales - The market power view

This category considers possible anti-competitive strategies followed by diversified firms in pursuit to increase profits, whereby the management acts in the best interest of shareholders. "The implication is that diversified firms will thrive at the expense of non-diversified firms not because they are any more efficient, but because they have access to what is termed conglomerate power...which is derived from the sum of its market power in individual markets"⁷³. Diversified firms may control competitive instruments that are by definition not at the disposal of single product firms, or they explicitly allow for their conglomerate interdependence. The former argument will be discussed first.

⁶⁹ See Shleifer/Vishny (1989).

⁷⁰ See Roll (1986).

⁷¹ See Morck et al. (1990), p. 33.

⁷² See Marshall et al. (1984), pp. 4.

⁷³ See Hill (1985), p. 828; see also Gribbin (1976) and Böhnke (1976), p. 210, who questions the necessity of individual market power in order to exert conglomerate power.

The most prominent argument refers to the possibility of **cross subsidisation** that emerges from internal capital markets within diversified firms. Cross subsidisation offers the opportunity to engage in predatory pricing as a means to discipline rivals who intend price cuts, to establish market barriers by threatening potential entrants and, in the extreme case, as a means to eliminate rivals in order to monopolise the industry. Of course, this strategy can be considered as a rational investment only in those instances, where the present value of gains of exploiting the prospective monopoly profits outweigh the resulting costs of predatory, in a static view non-value maximising, prices. Whether this policy turns out to be successful or not, depends on the ability of diversified firms to build up market barriers that generate long term economic profits. Apart from price-cutting behaviour, conglomerates may utilise the internal funds for non-price orientated strategies, e.g. extensive marketing expenses to establish a dominant position. Under these circumstances it is also likely that individual businesses benefit from marketing synergies resulting from such factors as brand names or national advertising⁷⁴.

In making reference to internal capital markets again, it is evident that cross subsidisation can be implemented only in those corporations, where non-profit criteria of individual operating areas, such as overall firm strategy, have a strong influence on internal capital allocation. This contrasts with the management view that individual division performance is directly observable and that individual units should be responsible for their own performances⁷⁵. If the management of a given firm favours the first view, it must be aware of the danger of allocating resources inefficiently in the sense that less profitable operating areas are financed thus incurring huge opportunity costs.

As the number of multimarket contacts that conglomerate firms experience increases, and the greater concentration ratios are in common markets, the more likely it is that diversified firms will recognise their **mutual interdependence**⁷⁶. This observation may give rise to a particular kind of tacit collusion called mutual forbearance. In such a situation one has to ask, if conglomerate interdependence makes it easier to sustain collusive outcomes⁷⁷. A potential argument stems from Edwards early view, in so far as "[Firms which compete against each other in many markets] may hesitate to fight local wars vigorously because the prospects of local gain are not worth the risk of general welfare....A prospect of advantage from vigorous competition in one market may be weighed against the danger of retaliatory forays by the competitor in other markets"⁷⁸. According to his view, the argument that enhances collusive stability refers to the increased potential for punishing deviant firms. But this reasoning ignores the incentive to cheat simultaneously in all markets, which might lead to a proportional increase in short run profits. In a game theoretic

⁷⁴ See George et al. (1991), p. 127.

⁷⁵ See Hill (1985), p. 842.

⁷⁶ See Scott (1982).

⁷⁷ See Bernheim/Whinston (1990), pp. 3.

⁷⁸ See Edwards (1955), as quoted in Bernheim/Whinston (1990), p. 3.

framework⁷⁹ Bernheim and Whinston identify conditions that support collusive behaviour among multimarket rivals. According to Scott⁸⁰ multimarket contact may enforce collusive outcomes simply because diversifiers experience learning effects with respect to their abilities to cooperate. Stigler⁸¹ argues that because multimarket contact increases the number of common buyers, the probability that cheating, i.e. price cutting behaviour, will be detected increases as well. Therefore punishment is more likely and multimarket firms will refrain from undercutting the oligopolistic consensus.

When firms realise that a main activity of one enterprise is the secondary activity of another, so called "spheres of influence" may develop as a special form of mutual forbearance. Supplemental to spheres of influence on product range these can also be established on a geographical dimension⁸².

The concluding group of arguments refers to '**reciprocal buying**' techniques, "the practice of taking your business to those who bring their business to you"⁸³. These anticompetitive instruments are of special relevance in considering vertical relationships, but they apply to conglomerate interdependencies as well as long as there are any vertical linkages among diversified firms. On the one hand friendship reciprocity might strengthen collusive behaviour, on the other hand diversified firms use their conglomerate power to force competitors to accept certain market arrangements such as "tie-in sales", "full line forcing" or "exclusive dealing". In such cases the sale of one (or more) products is made conditional on other transactions⁸⁴.

Empirical Evidence

It is not the intention of this section to give a complete empirical survey, instead on each topic a few studies are quoted just as an example to the reader.

⁷⁹ As far as I know, models of multimarket contact contain a few game theoretic approaches as opposed to the overall literature on corporate diversification that is almost entirely based on neo-institutional theories of the firm. Besides the work of Bernheim and Whinston other game theoretic modelling include Kreps/Wilson (1982), Milgrom/Roberts (1982) and Bulow et al. (1985).

⁸⁰ See Scott (1989).

⁸¹ See Stigler (1988), as quoted in Scott (1991), p. 227.

⁸² See George et al. (1991), p. 128.

⁸³ See Böhnke (1976), p. 228.

⁸⁴ For a more complete discussion see George et al. (1991), pp. 127.

Empirical evidence on the synergy view

One of the most obvious stylised facts refers to the superior performance of related diversification strategies which generally outperform unrelated diversification⁸⁵. Thus it seems that operational synergies outweigh financial benefits and, as expected, control loss problems increase when a firm diversifies into totally new fields of business with almost no links to existing lines of business.

In view of the potential synergies econometric work suggests that firms utilise diversification strategies especially to exploit R&D resources, where R&D can be interpreted as a proxy for intangible firm assets such as individual or organisational knowledge⁸⁶.

Another central observation underlines the relationship between total firm diversification and firm profits. Whereas recent evidence documents a negative correlation⁸⁷, the earlier literature yields mixed results⁸⁸. Looking at the more recent literature it appears that management often fails to reap the potential synergies but suffers from internal organisational problems or other costs associated with diversified expansion, e.g. the take-over premium paid to shareholders of the acquired firm. According to these observations some authors found a strategy of refocusing on core competencies in the 1980s⁸⁹.

With regards to the financial side of the corporation, the evidence does not provide clear information. Beattie demonstrated that diversification lowered firm specific risks⁹⁰, while Melicher/Rush assess the contrary result⁹¹. Holzmann et al. came to the conclusion that conglomerate and non-conglomerate firms do not show any significant risk differences⁹². These conflicting outcomes may be explained partly by differing risk measures used in those studies⁹³. Irrespective of these offsetting results, it was found out elsewhere that risk minimisation is not the most important motive for managers, instead it has been observed that firms enter into closely

⁸⁵ See Amit/Livnat (1988), Berry (1975), Christensen/Montgomery (1981), Jacquemin/Berry (1979), Lecraw (1984), Montgomery/Wernerfelt (1988), Varadarajan (1986). Only a few studies describe higher returns to unrelated diversification strategies, see Dubofsky/Varadarajan (1987), Michel/Shaked (1984). Some studies find no significant differences at all, see Bettis/Hall (1982), Melicher/Rush (1973), Montgomery (1985).

⁸⁶ See Jovanovic (1993), MacDonald (1985), Sutton (1973).

⁸⁷ See Berger/Ofek (1995a), Lang/Stulz (1994), Servaes (1996).

⁸⁸ For a negative relationship see Markham (1973), Mueller (1986), Rhoades (1974), for a positive relationship see Lecraw (1984), Ravenscraft (1983). Some studies suggest that firm diversification and profitability are uncorrelated, see Gort (1962), Vernon/Nourse (1973).

⁸⁹ See Berger/Ofek (1995b), Comment/Jarrel (1995), Liebeskind/Opler (1994).

⁹⁰ See Beattie (1980), for similar results see Amit/Livnat (1988), Löbner (1988), Smith/Weston (1977).

⁹¹ See Melicher/Rush (1973) or Montgomery/Singh (1984).

⁹² See Holzmann et al. (1975).

⁹³ See Jacobs (1992), p. 19.

related industries⁹⁴. Concerning internal capital markets and the associated possible benefits, recent empirical evidence dishonours this idea⁹⁵.

Empirical evidence on the agency view

Some of the empirical research on the diverse agency hypotheses compared manager controlled firms to owner controlled firms. Amihud/Lev showed that manager controlled firms are more likely to diversify, which supports models of the utility maximising manager⁹⁶. Further empirical evidence indicates that managers behave significantly different if owner control is negligible. Managers have incentives to smooth income streams⁹⁷ or maximise in their self interest⁹⁸. However, regarding the later argument Marshall et al. describe the overall empirical evidence as largely inconsistent with managerial theories⁹⁹. Concerning managerial ownership stakes, Denis et al. document a negative relation between the level of diversification and the amount of managerial shareholdings as well as the amount held by institutional investors¹⁰⁰. Accordingly, compensation incentives and outside control do restrain managerial misbehaviour.

Empirical evidence on the market power view

Finally, evidence on multimarket contact arguments will be represented shortly. Bernheim and Whinston list a number of studies that give evidence for multimarket effects on profit¹⁰¹, e.g. Scott¹⁰² demonstrated that multimarket contact in connection with high seller concentration resulted in higher profits. By contrast, after controlling for market share, Montgomery did not find any support for the market power view¹⁰³. Elsewhere Montgomery concludes that "the accumulated evidence suggests it is unlikely this motive plays a central role in firm diversification"¹⁰⁴.

⁹⁴ See Hughes (1988), Hall (1988).

⁹⁵ For a review of this literature see Rajan et al. (1998). These authors provide evidence that internal capital markets actually destroy corporate value.

⁹⁶ See Amihud/Lev (1981).

⁹⁷ See Boudreaux (1973).

⁹⁸ See Amihud/Kamin (1979).

⁹⁹ See Marshall et al. (1984).

¹⁰⁰ See Denis et al. (1997), for similar evidence see Lewellyn et al. (1985), Shleifer/Vishny (1988).

¹⁰¹ See Bernheim/Whinston (1990), p. 2, footnote 2.

¹⁰² See Scott (1982).

¹⁰³ See Montgomery (1985).

¹⁰⁴ Montgomery (1994), p. 175.

Empirical evidence concerning the mode of diversification and welfare transfers

Another field of empirical research emphasised on the mode of firm diversification, i.e. the differential performance patterns of internal and external expansion. The results are indistinct. Pitts showed that internal expansion makes it easier for management to exploit feasible synergies¹⁰⁵. Apart from this finding Hill discovered that acquisitions are the main vehicle for diversification strategies inasmuch as they enabled firms to grow faster¹⁰⁶.

Several studies focused particularly on the (conglomerate) acquisition process and the effect on acquired and acquiring firm value. One general result states that shareholders of bidding firms are tendentious worse off, whereas shareholders of acquired firms benefit¹⁰⁷. Another group of acquisition research studies compares pre- and post merger performance. Ravenscraft and Scherer noticed a decline in profit performance after the merger took place¹⁰⁸, what the authors attributed to emerging loss of control problems. Finally, acquisition research analysed the differential impact of horizontal, vertical and conglomerate mergers on firm performance. Bühner pointed out that horizontal and vertical mergers outperform conglomerates¹⁰⁹. Bühner argues that equity owners do not value potential financial synergies appropriately¹¹⁰ and that managers suffer from overestimating their abilities to make use of the acquisition in terms of additional economic value ("hubris").

¹⁰⁵ See Pitts (1976).

¹⁰⁶ See Hill (1985); this result was confirmed in Reid (1968), Weston/Mashingka (1971).

¹⁰⁷ See Bradley et al. (1988), Roll (1986), Morck et al. (1990).

¹⁰⁸ See Ravenscraft/Scherer (1987), as quoted in Montgomery (1994), p. 171; for a list of studies that obtain similar results, see Hill (1985), p. 829.

¹⁰⁹ See Bühner (1990); in contrast, Lubatkin (1987) and Chatterjee (1986) revealed superior performance of conglomerate firms.

¹¹⁰ See Bühner (1985), Schwalbach (1987) who demonstrated that shareholders can realise significant risk reductions holding a portfolio consisting of just a few assets.

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