What Do We Know about Success and Failure of Mergers?*

GUNHER TICHY
Institute of Technology Assessment, Austrian Academy of Sciences

Abstract. Collecting the most important results of about 80 empirical merger studies, this study condenses the bewildering spectrum of results to 18 stylized facts. Most important, no more than a quarter of the mergers increase consumer welfare; another quarter increase profits at the cost of consumers; half of the mergers reduce the value of the firm. Targets' shareholders win, while bidders' shareholders break even upon the announcement of a merger, but lose significantly in the long run. Seen relatively, horizontal mergers fare best, especially if they are focus-increasing. Cash-financed mergers fare better than stock-financed and strategic mergers fare better than financial ones. Confronting the stylized facts with existing merger theory reveals some major paradoxes; confronting them with existing competition policy reveals the need for a modification and intensification, as mergers increase concentration, and corporate policy strives towards still higher concentration. As a summary ten lessons are extracted on what we may have learnt, and on what is still open.

Keywords: mergers and acquisitions, event and outcome studies, concentration, competition policy

Several dozens of mergers studies exist, but it is still hotly debated whether mergers increase productivity, whether they create or destroy shareholder value, or to what extent they improve consumer welfare. Almost every statement about mergers can be appointed to one of two opposing schools—specialists in finance and industrial organization. Specialists in finance stick to the neoclassical tradition, appreciate acquisitions as a market process of allocating spare resources to their most effective use (via the best management), and try to prove their hypotheses by studying stock market reactions to acquisition announcements. Industrial organization specialists are much more sceptical about the allocative efficiency of stock markets, and conclude from the examination of balance sheet data, that acquisitions are not profitable even for the acquiring firms. This study collects the empirical results of both schools, attempts to condense them to stylized facts, and to match these with merger theories and policy proposals.

Section 1 starts by showing that event studies emphasize positive abnormal returns upon the announcement of a merger, but tend to neglect the rapid deterioration of shareholder value afterwards. Outcome studies tend to reveal negative effects on profits, and ambiguous ones on sales and market shares. The section collects 18 stylized facts, the most dazzling of which is probably that only a quarter of all mergers increase efficiency, while about one half reduce profits. Other stylized facts elaborate the differences among the various types of mergers. The section concludes by collecting four merger paradoxes.

* An earlier version of this paper was presented at the EUNIP conference, November 29-December 1, 2001 in Vienna. The author has greatly benefited from the discussion and from comments by K. Aiginger and J. Weigand.
Section 2 confronts the stylized facts, assembled in Section 1, with the most prominent theoretical explanations of acquisitions, and searches for answers to the question why bidder’s shareholders do not oppose the risky and profit-reducing investment of acquisitions. Section 3 investigates into the macro- consequences of mergers and the increasing importance of competition policy, and Section 4 asks whether mergers in continental Europe are different. Section 5 attempts to condense the evidence on what we may have learnt into ten lessons.

Contrary to the terminology that prevails in the theory-oriented literature, this paper frequently uses the terms “acquisition” or “takeover” instead of “merger”, since mergers, in the specific use of the term as opposed to tender offers, have different consequences in most empirical studies.¹

1. Stylized facts elaborated in five decades of merger research

Acquisitions typically occur in waves, and such waves have been observed for about a century. Nevertheless, “[T]he paths of economic theory and merger literature have rarely crossed” (Markham, 1966, p. 143). And if they did, mergers were seen under the aspect of allocation and as a “process of ‘natural selection’ ... [that] helps to validate the maximization of returns hypothesis” (Friedman, 1953, p. 22). This view was challenged in the late 1960s by the hypothesis of a process of selection driving out those who maximize profits at the cost of those maximizing growth (Galbraith, 1967; Marris, 1968).

Specialists in finance reacted quickly. Believing in perfectly working capital markets, they concentrated their research on the abnormal reaction of share prices around the announcement of an acquisition (Fama et al., 1969)—a methodology termed “event studies”. Their optimistic view that acquisitions create value is deduced from the fact that the target’s shares win appreciably at the time of announcement and those of the bidder do not lose (much). Industrial organization economists were much more pessimistic in this respect: Investigating the firms’ economic performance and balance sheets before and after the acquisition—in what was termed “outcome studies”—they found that acquisitions, far from creating value, are unprofitable even for the participants—a “disappointing marriage” (Meeks, 1977). As research went on, complexity grew; some industrial organization economist studies tended to show (small) post-acquisition gains and share market studies found post-acquisition losses—underperformance of merged firm shares—when extending the period of investigation beyond the immediate announcement period. In spite of this, the ideologies did not

¹ In both mergers and tender offers the bidder offers to buy all common stock of the target at a price in excess of the previous market value. In mergers the offer is directed toward the target’s board of directors, in tender offers directly to the target’s shareholders. In takeovers or in acquisitions neither 100% must be acquired nor the means of control transfer is restricted to common stock. A takeover normally implies an organizational integration of both firms.
converge, both schools tried to find arguments helping them to hold on to their respective view.

1.1. Profit deterioration according to event studies

The event study methodology goes back to Fama et al. (1969). Firmly believing in rapidly adjusting, perfect capital markets and, consequently, in the immediate adjustment of stock prices to information about a planned acquisition, the investigations focused on the abnormal movement of share prices following upon acquisition announcements. Fama et al. (1969), studying the adjustment of share prices to new information, used a window of 30 months before and after the event, and defined “abnormal” in relation to the share prices at the New York Stock Exchange (NYSE). As the new method was easy to apply, dozens of event studies appeared in consequence, applying the method to takeovers. In most cases the length of the observation window was restricted to a few days or, at most, a few months around the announcement; the studies differed in selecting different samples of takeovers and different control groups. The results, however, converged. In the early 1980s, analysts agreed almost unanimously that acquisitions create additional value, resulting not from improved market power but from improved allocation. The survey of Jensen and Ruback (1983) summarizes the results of 13 empirical studies. The targets’ shareholders get abnormal returns of 20–30% around the time of announcement while bidders more or less break even; tender offers come out as more profitable than mergers. Acquisitions create wealth by allocating assets to more efficient management teams, thus demonstrating the workings of an efficient market for corporate control (Manne, 1965). Some studies, extending the observation window to one year after the announcement, found negative abnormal returns, but Jensen and Ruback (1983, pp. 22–23) tended to consider this a measurement problem requiring further investigation. The fact that half of the abnormal return occurred prior to the public announcement of the acquisition was not regarded as an insider problem but was thought to result from the increasing probability of the acquisition (Jensen and Ruback, 1983, p. 14).

In the mid-1980s, even among the business school community, some doubt was cast on the unconstrained positive assessment of acquisitions. Jensen (1986) observed that leverage-increasing acquisitions result in significant positive increases in common stock prices while leverage-decreasing ones result in significant decreases. He concluded that many acquisitions are pushed by managers using unused borrowing power or large free cash flow—the free cash flow theory of takeovers. This theory was a first challenge to the theory of corporate control, emphasizing value-creating competition among management teams for the most efficient utilization of firm capabilities.

The big challenge, however, resulted from the extension of the observation window to a period of several years before and after the acquisition announcement. Table 1, collecting the information of all available event studies with long windows (for a collection of studies with short windows, see Mueller, 2001), shows a wide distribution of results with a clearly negative mean after the acquisition, and some tendency of more recent studies (dealing with the same period) towards even higher losses. As event studies
<table>
<thead>
<tr>
<th>Study</th>
<th>Time period</th>
<th>Sample</th>
<th>Control group</th>
<th>Before (%)</th>
<th>Acquirers' returns</th>
<th>Targets' returns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>United States</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hogarty (1970)</td>
<td>1953–1964</td>
<td>43 non-coeglos</td>
<td>Firms matched by industry</td>
<td>—</td>
<td>J1/5 to 5: −5</td>
<td>—</td>
</tr>
<tr>
<td>Lew and Mandelker (1972)</td>
<td>1952–1963</td>
<td>69 large acquisitions</td>
<td>Firms matched by size and industry</td>
<td>Y = 5/−1: + 14</td>
<td>Y0: + 8</td>
<td>J1/5: + 6</td>
</tr>
<tr>
<td>Varghese (1986)</td>
<td>1975–1983</td>
<td>80 mergers and takeovers</td>
<td>CAPM (D = 300/−61)</td>
<td>—</td>
<td>D200/0: −4</td>
<td>D1/100: + 1</td>
</tr>
<tr>
<td>Franks et al. (1988)</td>
<td>1955–1984</td>
<td>1555 targets, 850 bidders</td>
<td>Market portfolio</td>
<td>—</td>
<td>M0: cash + 2</td>
<td>M1/24: −4 to +9</td>
</tr>
</tbody>
</table>
### Table 1. Continued.

<table>
<thead>
<tr>
<th>Study</th>
<th>Time period</th>
<th>Sample</th>
<th>Control group</th>
<th>Before (%)</th>
<th>Acquirers’ returns(^2) during takeover (%)</th>
<th>After (%)</th>
<th>Targets’ returns (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1966–1969</td>
<td>261 M&amp;As</td>
<td></td>
<td></td>
<td></td>
<td>D1/1250: + 30</td>
<td>D1/1250: + 30</td>
</tr>
<tr>
<td></td>
<td>1980–1986</td>
<td>439 M&amp;As</td>
<td></td>
<td></td>
<td></td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>788 mergers</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>135 tender offers</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>314 cash M&amp;As</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>405 stock M&amp;As</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>112 focus increasing</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>92 focus decreasing</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Canada</td>
<td></td>
<td>1413 targets, 1683 bidders</td>
<td>CAPM M72/13, 13/72</td>
<td>M – 12/ – 1: + 3</td>
<td>M0: + 1</td>
<td>M1/12: + 1</td>
<td>+ 10</td>
</tr>
<tr>
<td>United Kingdom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frank et al. (1988)</td>
<td>1955–1985</td>
<td>954 acquisitions</td>
<td>Market portfolio, CAPM</td>
<td>—</td>
<td>M0: cash + 1</td>
<td>M1/24: 2 to + 18</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>M0: stock – 1</td>
<td>M1/24: – 1 to + 4</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Study</td>
<td>Time period</td>
<td>Sample</td>
<td>Control group¹</td>
<td>Before (%)</td>
<td>Acquirers' returns² during takeover (%)</td>
<td>After (%)</td>
<td>'Targets' returns (%)</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------</td>
<td>--------------</td>
<td>----------------</td>
<td>------------</td>
<td>----------------------------------------</td>
<td>-----------</td>
<td>----------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1046 bidders</td>
<td>CAPM M: -71/-12</td>
<td>M0: +10 M1/24: +4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M0/36 ew +1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cosh and Guest (2001)</td>
<td>1985–1996</td>
<td>64 hostile</td>
<td>BHR, control firms</td>
<td>Y: -3/-1; 20 AE: -0 Y0/4: -4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>139 friendly</td>
<td></td>
<td>M1/24: -18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2195 domestic</td>
<td></td>
<td>M1/36: -7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1065 cross-border</td>
<td></td>
<td>M1/36: -7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>1962–1974</td>
<td>26 manuf. and mining M&amp;As</td>
<td>26 firms matched by size and industry</td>
<td>J0: -5 J1/3: -1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td></td>
<td></td>
<td></td>
<td>J1/3: -1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>1962–1976</td>
<td>23 M&amp;As</td>
<td>23 firms matched by size and industry</td>
<td>J0: -4 J1/3: +1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>1971–1985</td>
<td>110 M&amp;As</td>
<td>CAPM M: -71/-25</td>
<td>M: -24/-1; -3 M0: -0 M1/24: -6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: ¹CAPM: Capital asset pricing model, BHR: Buy and hold returns.
²Y, M, D: Year, month, day before (-) and after (+) announcement or takeover.
A: announcement, E: effective, ew: equal weighted, vw: value weighted, Underlined: significant (if available) as indicated by the respective studies.
restrict their interest to the one indicator of abnormal share returns, Figure 1, condensing the results of Table 1, is a fair representation of the results: It reveals a clear trend of declining abnormal bidder returns, starting from say +20% five years before the announcement to some −5% two years after and about −10% five years after. Tender offers tend to show a better performance than mergers (Magenheim and Mueller, 1988; Loughran and Vlij, 1997; Rau and Vermaelen, 1998), acquisitions financed by cash a better one than those financed by stock (Loughran and Vlij, 1997; Andrade et al., 2001). “Glamor bidders”, that is those with a low book-to-market ratio, tend to show high abnormal announcement returns (Lang et al., 1989; Servaes, 1991) but a bad after-takeover performance (Rau and Vermaelen, 1998). According to Loderer and Martin (1992) the long-term performance of acquisitions was worst in the 1960s and best in the 1970s with the 1980s in-between.

These results confront the hypothesis of efficient capital markets no less than the hypothesis of value-creating acquisitions: “In fact, the shareholders of the acquiring firm appear to come dangerously close to actually subsidizing these transactions” (Andrade et al., 2001, p. 111). As a way out of this dilemma Andrade et al. (2001) refer to the well-acknowledged problems of calculating long-period abnormal returns; methodological differences, however, do not appear to be the main reason for the differing results—
negative returns are not restricted to specific methods (Gregory, 1997). As a new argument, Andrade et al. (2001, p. 111) emphasize that only stock-financed acquisitions show negative returns, and that these have to be analyzed as combined transactions: As both an acquisition and an equity issue, of which the latter one is normally associated with a 2–3% abnormal loss resulting from the greater likelihood of equity issues in periods of overvalued shares. This explanation, however, is highly problematic for several reasons. Firstly, not only stock-financed acquisitions show negative returns; secondly, the explanation is inconsistent, as a greater likelihood of equity issues of firms with overvalued shares excludes the hypothesis of efficient capital markets on which the explanatory power of announcement returns is based. Thirdly, it can explain neither the magnitude nor the declining trend of abnormal returns over at least 5 years. Nevertheless, the old differences between the schools live on: “With respect to mergers, it is our view that the long-run abnormal performance results do not change our priors that result from the announcement period analysis, namely, that mergers create value for stockholders of the combined firms” (Andrade et al., 2001, p. 114).

1.2. Profit losses and ambiguous effects on sales according to outcome studies

Industrial organization economists in the early 1970s were highly sceptical of the wealth-increasing nature of acquisitions revealed by event studies, as well as of the effectiveness of corporate control (Manne, 1965), and the hypothesis that well-managed, efficient firms acquire poorly managed, inefficient ones and restructure them effectively. They used output studies to investigate into the effects of mergers. The results of 36 available outcome studies are assembled in Table 2. Most of them found that the targets are significantly smaller than the bidders, but not systematically different in most other respects, thus undermining the manager-underperformance hypothesis, the basis of the market-for-corporate-control explanation of mergers.

Contrasting pre- and post-merger performance, the outcome studies use different methods, comparing the merging firms with their base industry, with matching firms, or with projections applying different time horizons, comparing cash flow or profits, gross and net of interest and taxes, profit ratios (return on sales, assets or equity), as well as different time horizons. The variance of the results due to different methods appears to be rather small relative to the variance of results in general, due, apparently, to the composition of the sample with respect to time period, merger motives, firm characteristics, or other as yet unknown factors. Just taking into account the direction of change in the studies collected in Table 2 reveals that profits come out weaker than in

---

2 The under-reaction of the share market to news is quite common; see Ritter (1991) for initial public offers, Agrawal et al. (1992) for takeovers, or Ikenberry et al. (1995) for equity issues.

3 For the purely semantic reason of easier distinction acquirers are termed “bidders” in this study, and acquirees “targets”, irrespective of the friendly or hostile motive.
Table 2. Main results of outcome studies.

<table>
<thead>
<tr>
<th>Study</th>
<th>Time period</th>
<th>Sample</th>
<th>Control group</th>
<th>Measure</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hoshino (1981)</td>
<td></td>
<td>M&amp;As</td>
<td>Non-mergers</td>
<td>Profit rate</td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td>1967–1973</td>
<td>90 M&amp;As</td>
<td>488 non-merging firms</td>
<td>Turnover ratio</td>
<td>3% → 1% Net worth/assets</td>
</tr>
<tr>
<td>Taketoshi (1984)</td>
<td></td>
<td>M&amp;As</td>
<td>Non-merging firms</td>
<td>Growth Y + 3</td>
<td>≈ Proportion of better performing mergers</td>
</tr>
<tr>
<td>Muramatsu (1986)</td>
<td></td>
<td>Acquiring firms</td>
<td>Non-acquiring firms</td>
<td>Profitability</td>
<td>≈ slightly higher in Y + 5</td>
</tr>
<tr>
<td>Odagiri and Hase (1989)</td>
<td>1980–1987</td>
<td>46/33 M&amp;A&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Matched firms</td>
<td>Growth rate Y + 5</td>
<td>≈ insignificant, horizontal (mostly defensive)</td>
</tr>
<tr>
<td>United States</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mueller (1985)</td>
<td>1980–1972</td>
<td>209 large targets (123 bidders)&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Industry-adjusted</td>
<td>Post-tax RoA</td>
<td>↓</td>
</tr>
</tbody>
</table>
Table 2. Continued.

<table>
<thead>
<tr>
<th>Study</th>
<th>Time period</th>
<th>Sample</th>
<th>Control group</th>
<th>Measure</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ravencraft and Scherer (1989)</td>
<td>1957–1977</td>
<td>251 acquired manufact. firms</td>
<td>Industry adjusted</td>
<td>Pre-tax RoA</td>
<td>↓ Except mergers of equals</td>
</tr>
<tr>
<td>Lang et al. (1989)</td>
<td>1968/1986</td>
<td>87 tender offers</td>
<td>Pairs of bidder &amp; target</td>
<td>Tobin q Y - 1/5/Y + 1/5</td>
<td>↓ Bidder - 12%, (target if existing = 5%)</td>
</tr>
<tr>
<td>Healy et al. (1992)</td>
<td>1979–1984</td>
<td>50 largest acquisitions</td>
<td>Industry-adjusted</td>
<td>Pre-tax cash flow/ assets of bidder &amp; target</td>
<td>↑ Y - 5/1 + 2%; Y + 1/5 + 3%, + for identical core business</td>
</tr>
<tr>
<td>Healy et al. (1997)</td>
<td>1979–1984</td>
<td>50 largest M&amp;As</td>
<td>Industry-adjusted</td>
<td>Pre-tax cash flow/assets</td>
<td>≈ Related ↓</td>
</tr>
<tr>
<td>Australia McDougall and Round (1986)</td>
<td>1970–1981</td>
<td>88 M&amp;As</td>
<td>Size and industry matched firms</td>
<td>Pre-tax RoA</td>
<td>≈</td>
</tr>
<tr>
<td>Singh (1971)</td>
<td>1955–1960</td>
<td>77 horizontal M&amp;As</td>
<td>none</td>
<td>Investment</td>
<td>Congl. horizontal ≈ 50% 50%</td>
</tr>
<tr>
<td>Meeks (1977)</td>
<td>1960–1971</td>
<td>~ 1000 M&amp;As</td>
<td>Industry-adjusted</td>
<td>Pre-tax RoA</td>
<td>≈</td>
</tr>
<tr>
<td>Cosh et al. (1980)</td>
<td>1967–1970</td>
<td>~ 200 M&amp;As</td>
<td>Industry-adjusted</td>
<td>Pre-tax RoA</td>
<td>↓ Y + 5: 64%</td>
</tr>
<tr>
<td>Kumar (1985)</td>
<td>1967–1974</td>
<td>241 M&amp;As</td>
<td>Industry-adjusted</td>
<td>Pre-tax RoA</td>
<td>≈</td>
</tr>
<tr>
<td>Cosh et al. (1985)</td>
<td>1972–1976</td>
<td>66 M&amp;As</td>
<td>Industry-adjusted</td>
<td>Pre-tax RoA Y + 1</td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Growth</td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Share return</td>
<td>↓</td>
</tr>
</tbody>
</table>
### Table 2. Continued.

<table>
<thead>
<tr>
<th>Study</th>
<th>Time period</th>
<th>Sample</th>
<th>Control group</th>
<th>Measure</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dickerson et al. (1997)</td>
<td>1948–1977</td>
<td>1443 acquisitions</td>
<td>2461 firms</td>
<td>Pre-tax RoA</td>
<td>↓ − 3% points</td>
</tr>
<tr>
<td></td>
<td></td>
<td>by 613 firms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>64 hostile</td>
<td>Industry and size adj.</td>
<td>RoA</td>
<td>↑ +4% points</td>
</tr>
<tr>
<td></td>
<td></td>
<td>139 friendly</td>
<td></td>
<td></td>
<td>↓ −1% point</td>
</tr>
<tr>
<td>Belgium</td>
<td>1962–1974</td>
<td>21 M&amp;As</td>
<td>Size and industry</td>
<td>Post-tax</td>
<td>≈</td>
</tr>
<tr>
<td>Kramps and Witterwolfe (1980)</td>
<td></td>
<td>matched firms</td>
<td>RoA growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>1962–1972</td>
<td>40 horizontal M&amp;As</td>
<td>Size and industry</td>
<td>Post-tax</td>
<td>≈</td>
</tr>
<tr>
<td>Jenny and Weber (1980)</td>
<td></td>
<td>matched firms</td>
<td>RoA growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>1964–1974</td>
<td>50 M&amp;As</td>
<td>Size and industry</td>
<td>Post-tax</td>
<td>≈</td>
</tr>
<tr>
<td>Cable et al. (1980)</td>
<td></td>
<td>matched firms</td>
<td>RoA growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>1962–1973</td>
<td>31 M&amp;As</td>
<td>Size and industry</td>
<td>Post-tax</td>
<td>↓</td>
</tr>
<tr>
<td>Peer (1980)</td>
<td></td>
<td>matched firms</td>
<td>RoA sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>1962–1976</td>
<td>26 M&amp;As</td>
<td>Size and industry</td>
<td>Post-tax</td>
<td>↓</td>
</tr>
<tr>
<td>Ryden and Edberg (1980)</td>
<td></td>
<td>matched firms</td>
<td>RoA sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>World</td>
<td>1991–1996</td>
<td>103 EU M&amp;As</td>
<td>Base industry</td>
<td>RoA targets</td>
<td>&lt; $1 b</td>
</tr>
<tr>
<td>Kleintert and Klott (2000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>↑</td>
</tr>
</tbody>
</table>

Notes:  
* Including majority capital participations.  
* Selected out of the list of the 1000 largest.  
* Sold plants had above average productivity.
Table 3. Main results of outcome studies condensed.

<table>
<thead>
<tr>
<th></th>
<th>Number of studies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Profits</td>
</tr>
<tr>
<td></td>
<td>↑</td>
</tr>
<tr>
<td>United States</td>
<td>1</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1</td>
</tr>
<tr>
<td>Japan</td>
<td>—</td>
</tr>
<tr>
<td>Rest of the world</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>11%</td>
</tr>
</tbody>
</table>

Source: Table 2.

the respective non-merging control group in 58% of the studies, and stronger in only 11% (see Table 3). This is consistent with the long-term results of the event studies.\(^4\) Dickerson et al. (1997, p. 356) report a superiority of internal growth over mergers, as a doubling of internal growth increases long-term profits by 7%, while growth by mergers generates a growth of only less than \(\frac{1}{2}\%\).

The profit-reducing potential of acquisitions contradicts efficiency theories as well as market power theories, used as the main explanation for mergers. Less astonishing is the underperformance of sales following acquisitions. In 42% of the studies, sales performed worse than in the control group of non-merging firms, and in 47% they were not quantitatively influenced by the acquisition (see Table 3). Only two studies for Japan (10%) report higher sales growth for merging than for non-merging firms. Standard Cournot models predict a lower level of profit-maximizing sales of merging firms and a higher competitors’ market share as a consequence. Salant et al. (1983), however, demonstrate that a pure Cournot strategy in exogenous firm mergers, producing a homogenous good may cut sales to an extent that in fact reduces the merging firms’ profits. Demerecke and Davidson (1985) get a similar result for firms producing differentiated goods. If the firms, however, engage in price (Bertrand) instead of quantity competition (Cournot), the text book result of profit-increasing mergers reappears.

Which of the two strategies do acquiring firms follow? The few results reported by outcome studies on market shares suggest a mix, somewhat biased towards Bertrand:\(^5\)

\(^4\) Some authors argue that bidders cannot gain either, because the “market for targets” guarantees that the premiums paid match exactly the expected efficiency gains, or as a result of the winner’s curse (Roll, 1986). But it is hard to see, how a “market for targets” can work with just one or at best a few bidders in any acquisition, and the bidders even lose compared to the non-merging control group. Two facts are responsible for this result: The premiums paid are so high that bidders would have to push target profits to the level of 85-95% of the most profitable firms (Albers and Vanaiya, 1989) just to break even. Cost savings on the other hand appear to be considerably less than the premiums (Bhagat et al., 1990). Farell and Shapiro (1990) emphasize that synergies based on horizontal mergers tend to be small unless factors are combined in a new production function.

\(^5\) For further evidence see the findings on prices in Section 1.3.
Mueller (1985) as well as Baldwin and Gorecki (1990) found losses of market shares, Mueller especially for acquisitions of non-related industries (conglomerate mergers), Baldwin and Gorecki, quite to the contrary for horizontal mergers. According to Pharma Strategy Consulting (Economist, January 22, 2000, p. 66) 11 of 12 pharmaceutical firms merging in the period 1990–1998 lost market shares, while six non-merging firms were able to gain. Goldberg (1983) could not detect any changes in market shares as a consequence of acquisitions, but Baldwin (1995) found increasing market shares, especially for related mergers.

Gugler et al. (2000), in the only study addressing the influence of acquisitions on profits and sales simultaneously, uncovered that only 29% of all acquisitions succeeded in improving profits and sales relative to the non-merging control group, that is only a little more than a quarter succeeded in improving efficiency. Twenty-eight percent were able to increase profits but lost sales, suggesting that they were able to increase market power and mark-ups.6 Another 29% of the acquisitions failed completely, losing profits as well as sales, while 15% were able to increase sales but at the cost of decreasing profits. For Gugler et al. (2000) this last group consists of growth maximizers, but they may comprise involuntary, defensive acquisitions with sub-optimal targets as well (see Section 2).7 The fact that about half of the takeovers were not profitable, even for business, implies definite welfare losses; one quarter may have increased total welfare at the cost of consumers and only one quarter may have actually increased consumer welfare.

1.3. Other stylized facts revealed by the outcome studies

Given the critical public discussion of acquisitions it is hard to understand how little other aspects of acquisitions have been investigated. Even if profit and/or sales of merging firms increase, consumer welfare need not increase: If efficiency does not rise, the gains may be primarily distributional, at the cost of other firms (market share losses or reduced input prices), of employees (layoffs and wage cuts), of consumers (price increase) or the government (tax savings). The few existing studies corroborate that only a small fraction of mergers increase consumer welfare by raising efficiency, and lowering prices.


---

6 This interpretation is supported by the fact that this proportion is considerably smaller (20%) for small firms.

7 The combination of the tendency of acquisitions to depress profits and sales at the same time is rather disturbing; it indicates efficiency losses instead of the expected efficiency increases due to synergies or scale economies. For economists, as opposed to the beliefs of politicians or at least some of the managers, this is not too surprising: Estimates of technical scale economies tend to be rather small (Pratten 1988), scale economies call for larger plants not larger (multi-plant) firms, and Nickell (1996) emphasized a positive relation between the number of competitors and an increase in productivity.
could not increase their efficiency significantly by acquisitions. See Berger and Humphrey (1992) for 57 American megamergers, Fixler and Zieschang (1993) for 898 bank acquisitions in the United States, Berg (1992) for Norwegian bank acquisitions, and Garden and Ralston (1999) for Australian credit unions. Productivity did not rise even in cases of higher X-efficiency of bidders and overlapping markets (Rhoades 1993). Even cost reductions are infrequent, and when they do occur, they are small. Shaffer (1993) finds 2% cost reduction relative to an X-inefficiency of 21%.\(^8\)

Consumer prices typically rise after an acquisition because of the firm’s augmented unilateral market power, the increased collusive potential, and the increased leeway of competitors to boost prices. Even if acquisitions do reduce cost, the effect is diluted by merely partial pass-over or overcompensated by market-power induced higher mark-ups. Borenstein (1990), Weden et al. (1991), as well as Kim and Singal (1993), demonstrate these price effects for airfares, Cotterill (1990) for supermarkets, Barton and Sherman (1984) for microfilm and for deposit interest rates. No study could be found dealing with acquisition effects on input prices. Managers, however, frequently use the argument of greater market power and quantity discounts on the input markets as an important element in support of the individual profitability of the acquisition (for the economy the effect is purely distributional).

Investment appears to keep on going quantitatively after an acquisition in the United States (Healy et al., 1992) and to slightly increase after an acquisition in Great Britain (Meeks, 1977; Cosh et al., 1980; Hughes, 1993); Kumar (1984) finds increasing investment in British conglomerate acquisitions, and no change in horizontal ones. Most studies report asset restructuring (Bhide, 1989; Bhagat et al., 1990; Franks and Mayer, 1996) and (the newer ones) focusing after an acquisition,\(^9\) which implies at least a change in the composition of investment. Strategic choice of assets is the dominant way of increasing efficiency by way of takeovers (Caves, 1991). But asset restructuring typically is at the cost of the target. Divestiture is three–four times more likely to occur for targets’ assets, and the target is frequently stripped of its most valuable assets (Capron, 1999).\(^10\)

The consequences of acquisitions on research and development are more negative. Only Hall (1988) and Healy et al. (1992) find unchanged R&D expenditures for their sample of the 50 largest U.S. acquisitions, and Hughes (1993) for acquired British SMEs. Elsewhere, negative results dominate; Ravenscraft and Scherer (1987), Hall (1990) and Hitt et al. (1991) report shrinking R&D expenditures as a consequence of acquisitions; Geroski (1990) and Blundell et al. (1995) a general negative influence of concentration

---

\(^8\) Even if efficiency did increase after acquisitions, an question that remains open is to what extent these gains could have been realized otherwise as well. See the net-share price increase of targets of failed hostile mergers reported by Ruback (1988).


\(^10\) According to Capron’s (1999) survey divestiture of targets’ assets does not reduce cost, while resource redeployment from acquirers to targets does.
on R&D. Two questionnaire studies, however, indicate subtle differences below the aggregated surface. Hamill and Castledine (1986) found that British targets acquired by non-EU-firms were better able to hold or even increase their R&D than those going to E.U. parents. Beers and Sadowski (2001) discovered that merged firms tend to concentrate more on radical innovations ("new to the market").

Acquisitions frequently are accompanied with increased management turnover (Shleifer and Vishny, 1997). In the sample of Martin and McConnell (1991), 42% of the targets’ top management is replaced in the first and 21% in the second year in hostile takeovers (compared to 41% and 17% in friendly ones). Kini et al. (1997, p. 393) report that the CEO leaves in 58% of the takeovers; Franks and Mayer (1996) find a slightly higher rate for hostile takeovers (65%) and a lower rate for friendly ones (47%). A change in management is frequent in cases of severe underperformance (Morck et al., 1989) but little is known about whether acquisitions with a new management perform significantly better than those with continuity.

Effects of acquisitions on wages and employment receive scant attention in research, which stands in striking contrast to the demanding level of discussion in the public arena. The few studies that do, report slightly reduced labor costs (Brown and Medoff, 1988; Rosett, 1989; Bhagat et al., 1990). With respect to this, acquisitions imply a small distributional shift from employees to targets’ shareholders. Little, however, is known about whether and to what extent the reduction in labor cost results from reduced individual wages and/or reduced employment. Baldwin (1995, p. 225) found little effect on wages and some reduction of salaries, Gokhale et al. (1995) discovered reduced extra-marginal wage payments through reduced employment of senior workers and flattened wage seniority profiles for hostile mergers, but not for others. 11 Bhagat et al. (1990, p. 23) 12 and Healy et al. (1992) report industry-adjusted abnormal layoffs of about 3%; Brown and Medoff (1987) do not find any significant reductions. Baldwin (1995, p. 225) reports a reduced share of non-production workers. All these results are not inconsistent with the ambiguous evidence on productivity improvement, but hardly consistent with the (relative) loss of acquiring firms’ market shares. They open a wide gap between public perception, almost equating acquisitions with the firing of employees on the one hand, and the benign neglect and the hardly relevant results of merger research on the other. 13

1.4. Distinction by types of acquisition

The most disturbing outcome of any acquisition study survey is the bewildering spectrum of results, frequently even producing opposite results. It is not easy to get to the bottom of

---

11 The effects are small and based on a tiny sample of only eight hostile mergers.

12 Layoffs were two thirds higher when a white knight (a merger partner or acquirer sought out by the target’s management or board to thwart a hostile takeover) acquired the firm, and three times higher when the target successfully resisted the bid (Bhagat et al., 1990).

13 Public perception could be misled by managers’ overoptimistic pre-acquisition announcements, emphasizing the rationalization potential of the acquisition to win shareholder approval.
this mystery, as the studies differ widely from each other, using different methods, and samples differing with regard to time period, size and industry composition, type of acquisition and means of payment. Any effort to disentangle the influence of these factors must remain superficial given the existing information.

Studying the bulk of existing studies provides little evidence in support of the belief that different methods are the main cause of the big differences; studies with different approaches frequently obtain rather similar results (Gregory, 1997). Differences with regard to sample selection and, even more so, with regard to the time period under investigation may be much more important, as size and industry composition of the acquisitions, the relatedness of the partners’ business, the degree of hostility, means of payment, etc. change over time. As most studies investigate a rather long period, they—involuntarily—obtain a rather heterogeneous sample. Even if they test for the influence of the various determinants on the acquisitions’ results, they do it factor by factor, while the combination of factors appears to be of prime importance. Given the existing studies, this survey founders as well where multivariate influence is concerned; it can only summarize the univariate relations.

A substantial share of the divergent results is due to differences in the relatedness of the merging firms’ business. In general, acquisitions among firms with similar products and/or markets fare better. For example, Ravenscraft and Scherer (1988), found that acquisitions of firms with related business are significantly more profitable than horizontal ones, which themselves are significantly more profitable than vertical mergers; conglomerate mergers are the least profitable. In the international sample of Gugler et al. (2000) horizontal mergers fare better as well. Among the event studies, Healy et al. (1997) report significant positive abnormal returns for related business (+3%) among the 50 largest U.S. acquisitions, insignificant positive ones for semi-related business (+2%) and insignificant negative ones for unrelated business (−1%). Similar results are found for acquisitions less gigantic in scale by Melicher and Rush (1974), Bühner (1991), Gregory (1997), Maquiera et al. (1998) or Conn et al. (2001). Mueller (1985) reports a greater loss of market shares for horizontal than for conglomerate mergers; this, however, is not inconsistent with oligopolistic behavior. Recent studies tend to use the sharper distinction between focus-increasing and focus-decreasing acquisitions and obtain corresponding results: Meggison et al. (2000) report three-year cumulative abnormal returns of −2% for focus-increasing and of −26% for focus-decreasing acquisitions. Analogous conclusions can be drawn from the investigations of Lang and Stulz (1994), Berger and Ofek (1994), Comment and Jarell (1995), Mulherin and Boone (2000), or

14 Schwert (2000, p. 2618) elaborates that the problem of missing data (no data on mergers of smaller firms in the M&A-statistics, missing balance sheet data and share prices of non quoted firms) can result in a serious sample selection bias.

15 Whether a business is related or not is usually checked using STC two or three digit statistics. This can be misleading, as it concentrates on production characteristics, while for relatedness other characteristics (e.g. marketing or logistics) may sometimes be more important.

16 One must not forget that for the simple reason of data availability all studies deal with large acquisitions by very large corporations.
Desai and Jain (1999) for spinoffs, thus emphasizing the capability theory of the firm. Conglomerate mergers appear to have been profitable in the sixties (Hughes, 1993, p. 65), but have been faring worst since (Bühner, 1991; Berger and Ofek, 1994; Macquieira et al., 1998); divestures rather than non-related acquisitions now increase firms’ value (Comment and Jarell, 1995).

A second distinction relevant for the success of acquisitions, is the distinction between means of finance: Most studies report that bidders using cash as a means of payment fare much better than those using stock, at least for the United States, less so for Great Britain, due to the greater role of intermediaries (Franks et al., 1988). Healy et al. (1997) obtained contrary results for their mega-acquisitions: pure stock acquisitions fare better in the following five years than cash plus debt and much better than cash plus stock. According to Loughran and Viji (1997) cash bids are qualified as an indicator of a good performance of the bidder. These univariate results may be blurred, however, by intermingling with a third and fourth distinction: Tender offer and mergers, on the one hand, and hostile and friendly takeovers on the other. Franks et al. (1988) report that cash is primarily used for tender offers and stock for mergers. As tender offers are reported to have a better post-acquisition performance than mergers (Asquith, 1983; Jensen and Ruback, 1983; Agrawal et al., 1992; Rau and Vermeulen, 1997) the better performance cannot be easily attributed to one of them. Furthermore, tenders are regarded as primarily disciplinary and hostile according to Morck et al. (1988) while mergers tend to be synergistic and friendly. Whether hostile or friendly takeovers tend to perform better is an open question; Healy et al. (1987) find better performance of friendly (mega-) acquisitions, Ravenscraft and Scherer (1988), Cosh and Guest (2001) as well as Morck et al. (1988) of hostile ones. The latter authors offer the explanation that hostility may be the reason for the better performance of cash mergers. Schwert (2000), however, demonstrates that the distinction between friendly and hostile takeovers is ambiguous in merger statistics as well as in the financial press; he prefers to differentiate between disciplinary and non-disciplinary acquisitions with change of management as the relevant criterion. Healy et al. (1997) combine friendly, related and stock-financed acquisitions to a new “strategic” category showing significant better returns than the contrasting “financial mergers” category. Acquisitions in the specific meaning of the word, that is takeovers leaving the target’s organizational structures more or less unchanged (e.g. via capital participation), tend to produce better results than mergers, that is the legal amalgamation of bidder and target (Ravenscraft and Scherer, 1987).

17 See e.g. Loughran and Viji (1997), Linn and Switzer (2001), as well as Conn et al. (2001) for cross-border mergers.
19 Among tender offers those with a White Knight perform better than hostile ones, and these better than the rest (neutral management).
20 Bhide (1989) in his investigation into merger motives holds that friendly mergers are dominated by portfolio motives, while hostile ones strive towards restructuring and, to a lesser extent, exploitation of synergies.

Given the fact that the acquisition types have varied over the last 30 or so years, the time period of the respective investigation can heavily influence the results. Agraval et al. (1992) report 60-month cumulative abnormal returns of $-23\%$ for the late 1950s, $-15\%$ for the 1960s, $+4\%$ for the 1970s and $-19\%$ for the 1980s; according to Conn et al. (2001) the results improved in the 1990s. With regard to the types of acquisitions, a larger share of conglomerate mergers was typical for the 1960s, hostile takeovers and leveraged buyouts (LBOs) peaked in the 1980s (Schwert, 2000); all-stock payment and mergers between firms in the same industry increased markedly from the 1970s on (Andrade et al., 2001), focus-increasing (Megginson et al., 2000) and cross-border acquisitions (Gugler et al., 2001) gained importance in the 1990s. One could, therefore, speculate about up to what extent, ceteris paribus, the higher share of less efficient conglomerate mergers could be responsible for the significantly high negative abnormal returns of acquisitions reported for the 1960s, or up to what extent the higher share of less profitable strategic acquisition (Healy et al., 1997) could be responsible for the improved results of acquisitions in the 1990s—better for business but less so for consumers as a result of increased market power. Lastly, one should not forget the relative laxity of U.S. merger policy since the 1980s.

Most acquisition studies deal with large corporations in the manufacturing industries. Little is known about the success of acquisitions of smaller firms. The results of Gugler et al. (2000) may indicate, however, that smaller acquirers have almost the same rate of success (or failure), notwithstanding their lower potential to utilize market power.

---

21 The premiums paid did not exceed those for domestic R&D-intensive firms.
22 See Loderer and Martin (1992) as well.
23 As mentioned at the beginning, there is typically at least one study with opposing results. Conn (1976) concentrating on conglomerate mergers in the 1960s, did not find outstanding negative results; Odagiri and Hase (1989) found decreasing profits and sales for horizontal mergers in Japan, with somewhat better results for product-extension (profits $\uparrow$, sales $=$) or market extension mergers (profits $=$, sales $\uparrow$).
24 According to Ravenscraft and Scherer (1987, p. 59) 87% of the acquired firms were smaller than $10m$ and therefore not reported in the merger files, which forms the statistical basis for almost all investigations.
25 The share of profit-increasing firms is almost equal (55% of small, 58% of large), while the share of sales-increasing small firms is significantly larger (52% versus 36%).
WHAT DO WE KNOW ABOUT SUCCESS AND FAILURE MERGERS?

benign neglect of acquisitions in services is a serious problem as their importance increased rapidly in the 1990s without having been unimportant before. Four of the top five U.S. industries based on acquisition activity in the 1990s are services (Andrade et al., 2001).26 Almost half of 1029 European cross-border acquisitions from 1994 to 1996 were in non-manufacturing lines of business.27 Gugler et al. (2000) report significantly higher profits for acquisitions in services than in manufacturing; combined with less difference in sales performance this indicates more relevance of market power motives in the service industries. Likewise, a summary of the main studies on bank acquisitions (Tichy, 1999)—the only better researched area among services—finds bank acquisitions somewhat more profitable than manufacturing ones. Three factors contribute to this result: Deregulation, allowing U.S. banks to expand their geographical market for the first time, asset restructuring from securities to more profitable loans, and higher margins as a result of increased market power. Acquisitions in industries with important network externalities and in deregulated industries remain largely unresearched; in both cases involving major players in the 1990s and in many cases identical industries. Conn et al. (2001) get positive three-year abnormal share returns for business services only, while those for distribution, banking, insurance and financial services as well as for other services show significantly higher losses than manufacturing acquisitions. With regard to airline acquisitions following deregulation, Bleeke (1990) observed that a first merger wave consolidated the weak and a second one combined the strong. Ten years after the start of deregulation only one third of the newcomers and three-fifths of the incumbents still existed. Merging airlines increased their prices by 9%, their competitors by 12% (Kim and Singal, 1993).

As a last point, the effectiveness of acquisitions differs with regard to the specific characteristics of the firms involved. In general, active bidders (frequent acquirers) tend to show a better performance (Gregory, 1997, p. 993; Conn et al., 2001), acquisitions of equals face greater difficulties than those in which the bidder is considerably bigger than the target.28 In fact, bidders are in most cases considerably larger than the targets and considerably larger than the non-merging firms in their industry; targets are considerably smaller in both respects.29 For the other characteristics the results are less clear: Abnormal share returns frequently improve significantly for acquirers and deteriorate significantly for the acquiree in the year before the takeover (Cosh and Guest, 2001). Over a longer pre-bid period, both bidders and targets are more profitable than non-merging firms in the respective industry in about four out of ten studies and of equal

26 (1) metal mining, (2) media and telecommunication, (3) banking, (4) real estate and (5) hotels.
27 215 production services, 189 retail trade, 59 finance.
28 See e.g. Mueller (1980), Ravenscraft and Scherer (1989), or Kleinert and Klos (2000) for E.U. mergers. The size difference is one of the reasons why the mergers in the studies of Healy et al. (1992 and 1997) show a rather good performance; in addition these extremely large firms may have high market power.
29 A quarter of the bidders in the survey of Capron (1999) are four times the size of their targets, half of them are twice the size; Cosh and Guest (2001) find that both partners in hostile mergers are much larger than in friendly ones. According to Mueller (1980) bidders are $2\frac{1}{2}$ times the size of non-merging firms in their industry, targets about one third the size.
profitability in another four. Targets are less profitable than bidders in about half the studies—predominantly in American and British ones—significantly more so only in Herman and Lowenstein’s (1988) work on hostile takeovers; in the rest of the world Gugler et al. (2000) do not find any difference. In Matsusaka’s (1993) study small targets had profit rates significantly above the average. Bidders tend to grow faster both than their non-merging industry fellows and their targets, which fall behind their industries in two out of three cases. No clear difference can be detected in book-to-market ratios. Lang et al. (1989) held that in tender offers low-q (i.e. high book-to-market ratio) bidders usually buy high-q (low BTMR) targets. Rau and Vermaelen (1998), calling firms with high book-to-market ratios “value firms” and those with low BTMR-ratios “glamor firms”, found the latter highly unprofitable in the long run, especially in mergers. Acquisition announcements by glamor firms, however, yield high immediate abnormal returns (Lang et al., 1989; Servaes, 1991).

1.5. Preliminary results: 18 stylized facts and four merger paradoxes

Table 4 tries to condense the stylized facts elaborated in the previous section. Typically, a bidder, large by the standards of its industry, acquires a target which is much smaller, and small by the standards of its industry as well (stylized fact SF 1). Bidder and target are at

| Table 4. A birds-eye view of the stylized facts (SF) resulting from the merger studies. |
|------------------------------------------|-------------------------------------|-------------------------------------|
| Pre-acquisition characteristics          | Bidder                              | Target                              |
| SF 1 Size                                | > industry, > target                | < industry, < bidder                |
| SF 2 Profitability                       | > industry, > target                | > industry, < bidder                |
| SF 3 Growth                              | > industry, > target                | < industry, < bidder                |
| SF 4 Market-to-book ratio                | (< industry)                        | ?                                   |
| Effects of the acquisition               |                                     |                                     |
| SF 5 Return on share                     | Announcement ≈, long-run losses     | Announcement premium 20-50%         |
| SF 6 Profits                             | ↓                                   |                                     |
| SF 7 Sales                               | ↓                                   |                                     |
| SF 8 Market share                        | ↓, In most cases at the loss of the target |                                     |
| SF 9 Investment                         | ≈                                   |                                     |
| SF 10 R&D                                | ≈                                   |                                     |
| SF 11 Asset restructuring               | Yes                                 |                                     |
| SF 12 Management turnover               | Yes                                 |                                     |
| SF 13 Labour cost                       | ↓                                   |                                     |
| Elements of success of an acquisition    |                                     |                                     |
| SF 14 Relatedness                        | Related business > horizontal > vertical > conglomerate |                                     |
| SF 15 Size difference                    | Big difference > equal size         |                                     |
| SF 16 Motive                             | Tender offer > merger; hostile? friendly |                                     |
| SF 17 Financing                         | Cash > stock                        |                                     |
| SF 18 Market-to-book ratio               | Value bidders > glamor bidders      |                                     |
least as profitable as their respective industries in four out of five cases, but the bidder
in most cases is more profitable than the target (SF 2). The bidder tends to grow faster
than its industry and faster than the target which grows at best at the speed of its
industry (SF 3). The shares of the bidder tend towards overvaluation and positive
abnormal returns in the year before the acquisition, those of the target rather towards
negative ones (SF 4). Around the announcement of the takeover the target’s abnormal
returns increase steeply, the bidder’s returns remain unchanged at best; after the
acquisition increasing negative abnormal returns prevail (SF 5). Post-acquisition profits
are below those of the respective non-merging control group in about 60% of the
studies, higher in only 10% (SF 6). Sales are little affected in about half of the studies,
lowered in one third (SF 7); market shares normally shrink (SF 8). Investment is not
necessarily reduced (SF 9) but restructured, in most cases to the detriment of the target
(SF 11). R&D is more likely to be reduced than expanded (SF 10). Manager turnover is
observed in at least half of the acquisitions (SF 12). Labor costs are cut, but little is
known about the division in effects on per capita wages and employment; layoffs,
however, are not reported as a major effect of acquisitions in most of the studies (SF
13). As to the types of acquisitions focus-increasing acquisitions tend to show the
relatively best results, followed by related and horizontal ones, with conglomerate
mergers faring worst (SF 14). Acquisitions of small firms fare much better than mergers
of equals (SF 15). Cash-financed acquisitions and tender offers are more likely to have
positive returns than stock-financed acquisitions and mergers (SF 16 and 17); the
effects, however, are difficult to disentangle: Tender offers tend to be financed by cash
and mergers by stock, and the unprofitable acquisitions by glamor firms are typically
mergers (SF 18). Whether domestic or cross-border acquisitions are less profitable is
still in dispute.

The 18 stylized facts, elaborated in the previous section and condensed in Table 4 raise
some paradoxes, hidden below the surface of the merger debate:

- Firstly, the acquisition paradox: Why do bidders press for acquisitions when they
  should know from a long history of acquisitions that they face a high probability of
  losing money at the gain of the target. This is even more jarring in the case of multiple
  acquirers whose acquisitions are typically more successful. If they were successful in
  their first acquisitions, how did they learn? And if not, why did they continue to acquire?
- Secondly, the stock market paradox: Why does the share market show no losses
  (abnormal negative returns) for the bidder at the time of the announcement, in spite the
  fact that dozens of studies have verified acquirers’ losses, and the share market does
  reveal these losses with a considerable lag?
- Thirdly, the related glamor paradox: Why do acquisitions by glamor bidders produce
  the largest announcement gains (and dominate the merger statistics at least with regard
to their greater size) if they are the most unprofitable in the long run.
- Fourthly, the layoff paradox: Why do academic investigations uncover only small
  effects of acquisitions on layoffs—if they investigate this aspect at all—while this is
  the most discussed consequence in the media and in the public. Does lack of data

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
prevent investigations, or does employment in fact change little in the long run—with bidders’ CEOs talking much about layoffs in advance to prove the efficiency and the cost-saving potential of the acquisition, but implementing little afterwards?\textsuperscript{30}

Are there any explanations for these paradoxes? Confronting the most prevalent theoretical explanations of acquisitions with the stylized facts may provide some hints.

2. Why do firms merge?

Academic research has elaborated quite a number of theories trying to explain why firms merge:

- One group of explanations is based on the efficiency-increasing power of acquisitions, be it by the exploitation of synergies or growth opportunities (synergies hypothesis) or by better management and/or organization (corporate-control hypothesis).
- A second group points towards the managers’ interest in acquisitions, be it that they incorrectly believe to be better able to manage the target (hubris hypothesis), that they believe in the superior quality of their investment decisions relative to those of the shareholders (free cash flow hypothesis), or that they act to get personal advantages (empire-building hypothesis).
- Acquisition for diversification (diversification hypothesis) may be of primary interest to managers as well, as they are less able to diversify their risk than shareholders, who can control risk more efficiently by structuring their portfolio to achieve the aspired risk structure.
- The market power hypothesis perceives the struggle for market shares and price-setting power as the dominant motive of acquisitions.
- A last group of theories looks upon acquisitions as a reaction to changes in the environment: to disturbances like new technologies or deregulations (disturbance hypotheses), or to competitor policy (defensive acquisitions).

Which of these explanations are consistent with the stylized facts elaborated in Section 1? Section 2.1 will match theoretical propositions with stylized facts, as a basis for a preliminary answer in Sections 2.2 and 2.3.

\textsuperscript{30} Furthermore, it could be considered as a reversal paradox that more recent event studies and those dealing with more recent periods are more likely to obtain worse results than earlier ones, while more recent outcome studies, in contrast, tend to find acquisitions slightly less unprofitable.
Table 5. Stylized facts and respective hypotheses of merger theories.

<table>
<thead>
<tr>
<th>Stylized fact (F)</th>
<th>Synergy hypothesis</th>
<th>Corporate-control hypothesis</th>
<th>Manager interest hypothesis</th>
<th>Diversification hypothesis</th>
<th>Market power hypothesis</th>
<th>Disturbance hypothesis</th>
<th>Defensive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-acquisition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bidder (2, 14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target (2, 14)</td>
<td>related industry</td>
<td></td>
<td>more efficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return/share:</td>
<td>related industry</td>
<td></td>
<td>less efficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bidder (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>target (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-acquisition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return/share (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profits (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales (7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market share (8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment (9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset restructuring (11)</td>
<td>partially yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managm. turnover (12)</td>
<td>no</td>
<td>yes</td>
<td></td>
<td></td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Number of the respective stylized facts in brackets. Framed fields indicate lack of statement by theory. Shaded fields indicate opposing result of empirical studies.

2.1. Matching theoretical propositions with stylized facts

Table 5, taking a bird’s-eye view and neglecting all the details, attempts such a match between theoretical propositions and stylized facts. Not all stylized facts, however, are relevant for all theories, and for some theories a type of evidence is typical, for which no stylized facts exist, as it is not being researched in standard merger studies.

2.1.1. Explanations attributing acquisitions to efficiency considerations

Explanations attributing acquisitions to synergy considerations contend that acquisitions should occur exclusively between related industries, as only in rare cases benefits can be grasped by acquiring firms in other industries.31 Profits, sales, market shares, and in consequence share returns should increase after the acquisition, due to higher efficiency. Increases in profits, share returns and market shares are not, however, consistent with the stylized facts disclosed by empirical research, while the results on sales, investment, asset restructuring and management turnover are consistent with a hypothesis explaining some

---

31 The most frequent case: Acquisition of a supplier, e.g. of electronic components by a car or machine-tool producer normally fails; the loss of competitive pressure increases costs and innovative capacity is reduced for lack of contact with other customers’ challenges. See, however, footnote 15.
fraction of the acquisitions by synergies: Especially focus-increasing, cross-border acquisitions or those made to gain know how (Cable, 1977) may belong to this category.

Corporate control, the explanation of acquisitions as competition of management teams for the control of assets, implies that the bidder is highly efficient and the target rather inefficient; the management is laid off after the acquisition, and the assets restructured; these propositions of corporate control theory are more or less in concordance with the stylized facts, even if the efficiency advantage of the bidder is sometimes restricted to the year of the acquisition (Franks and Mayer, 1996; Cosh and Guest, 2001), management turnover is less frequent than expected, and integration takes a rather long time in many cases (Capron, 1999). The post-acquisition performance claims of theory, however, seriously contradict the stylized facts. All performance indicators deteriorate rather than improve, asset restructuring is extremely skewed and frequently hurts acquisition performance (Capron, 1999). Even if the divestiture of bidder assets is found to be cost-saving, divestiture of target assets is three to four times more likely to occur, often damaging capabilities. Furthermore hostile takeovers are a rather small fraction of all takeovers, a fact at least partly explained by free-rider problems (Grossman and Hart, 1980).

2.1.2. Explanations emphasizing manager-interest

The management-interest theories of acquisition cannot easily be checked for their concordance with the list of stylized facts, as most of these are hardly relevant, irrespective of the driving motive: hubris (Roll, 1986), free cash (Jensen, 1986), or empire building (Hughes, 1993). It is hardly relevant for a self-interested manager whether his company’s profits or share returns are above average or not, or whether the acquisition increases the profit quota, as long as shareholders, do not object. What is relevant for a self-interested manager in most cases is the increase in his power, his income and his potential career, all depending more upon the size and growth of the firm, that is, on sales and market shares: “Growth increases manager power by increasing the resources under their control. It is also associated with increases in manager compensation, because changes in compensation are positively related to the growth in sales” (Jensen, 1986).

33 See e.g. Conn et al. (2001).
34 See Section 1.4.
35 More than half of all acquired firms in European cross-border takeovers remained stand-alone subsidiaries, only one-tenth was fully integrated (Schoenberg, 1996).
36 Apart from the fact that it is hard to define a hostile merger (Schwert, 2000), no more than one-tenth should be considered as really hostile.
37 In the investigation of its acquisition of Source Perrier by the E.U. Commission, Nestlé stated that the authorities “should not prevent any more than is necessary the growth of industries by acquisition. This is sometimes the only means of expansion open to firms in slowly-growing markets” (Neven et al., 1993, p. 14; my emphasis).
38 This may differ in detail, depending on the dependence of managers income on sales, profits, share price, etc.
Using stochastic optimal control theory with forward-looking integral constraints, Kanniainen (2000) derived that managers with a linear compensation scheme tend to over-invest, and that the empire-building motive is related to the degree of uncertainty, risk aversion and preference for prudence. With this interpretation, mature manager-controlled corporations whose preference for growth may be characterized by the use of a lower discount rate than the market as a whole, will be faced with a sea of undervalued takeover possibilities (Mueller, 1969). They initiate takeovers not to benefit shareholders but to satisfy their own empire-building ambitions (Rhoades, 1986; Marris, 1964; Roll, 1986). Moreover, it has been argued that this ‘pursuit of growth may be self-reinforcing: the more managers pursue this objective, the more other managers feel they must conform … Consequently rather than deviant managerial behavior being driven out by stockholder welfare-maximizing behavior, the so-called ‘deviant’ behavior has more likely driven out the other” (Marris and Mueller, 1980, p. 42). The stylized facts, however, do not reveal this ‘pursuit of growth’. Market shares are lost rather than gained following acquisitions, the targets in manager-driven acquisitions are even more frequently non-related and less attractive than in other ones (Lang et al., 1991; Harford, 1999), and bidder stock prices tend to decline more, when managerial considerations appear to motivate the acquisition (Möck et al., 1988).

2.1.3. Explanations attributing acquisitions to diversification
Explanations attributing acquisitions to diversification considerations imply profitable targets in different markets and/or industries, increasing investment to expand in these new fields, and increasing after-acquisitions profits, to justify the deal. None of these can be found among the stylized facts. The diversification motive has lost importance anyhow: Contrary to the 1960s, focus-increasing acquisitions have dominated the last two decades or so. That buying into closely related industries (product extension) and markets (market extension) produces the relatively best performance among acquisition types is one of the most reliable stylized facts. Restructuring by acquisition—bidders in declining but still profitable industries acquire targets in rising industries (the “failing-industry” hypothesis)—never proved successful. Conn (1976) found no evidence, neither of declining-industry bidders nor of rising-industry targets.

2.1.4. Market-power explanations
Few of the empirical stylized facts contradict those implied by the market power hypothesis. At least in the last two decades or so, most targets have been in related industries, investment has been reduced after the acquisition, and sales and market shares have tended to decrease, especially in large firms, as oligopoly theory predicts. Increasing share returns and profits are the only theoretical hypotheses not corroborated by the stylized facts. Failed acquisitions appear to provide the explanation. According to Gugler et al. (2000) 43% of the takeovers failed, having lower profits than the control group of
non-merging firms five years after the acquisition;\textsuperscript{39} 28% had higher profits but lower sales. This is a clear indication of merging for market power,\textsuperscript{40} even more so when taking into account that 35% of the large firms were able to increase profits at the cost of sales as compared to only 20% of small ones.

\subsection*{2.1.5. Acquisitions as reactions to a changed environment}

The disturbance hypothesis (Gort, 1969), explaining acquisitions with valuation differences resulting from some disturbance, belongs (just like the manager interest theory) to those which are difficult to match with the stylized facts revealed by the usual merger studies. The only supporting stylized fact is asset restructuring, the only opposing one is unchanged investment; all others are indifferent. Gort (1969) as well as Andrade (2001) found one other indicator in favor of this explanation. The existence of merger waves and the concentration of specific waves in specific industries.\textsuperscript{41} These waves have some type of shock as at least one cause, be it a new production technology (Taylorism, Fordism, digitalization), organizational advance or a new form of governance, a more or less restrictive merger policy, deregulation or privatization, etc. Some of them directly influenced the propensity to acquire, some indirectly by increasing valuation differences (Mitchell and Mulherin, 1996). Recent industry-specific shocks involve changes in regulation and changes in technology. The case studies in Kaplan (2000a,b) and the industry composition of the acquisitions in the 1990s—media, banking and finance, real estate as well as leisure and entertainment—reflect deregulation shocks (Mitchell and Mulherin, 1996), and the technology shock of the “digital revolution” (Andrade, 2001). Böckem (2001) demonstrated in her model of endogenous mergers that the shocks need not be industry-wide. In an economy of firms heterogeneous with respect to marginal costs, a triggering event within one firm can start a merger wave or a rush of simultaneous mergers.

The explanations attributing acquisitions to defensive reactions are completely neglected by studies searching for stylized facts. The usual stylized facts do not fit, as

\textsuperscript{39} The share of large and small firms with profits below the control group is identical, which stands in opposition to Andrade’s (2001) report of higher abnormal negative returns for small firms.

\textsuperscript{40} This is hard to prove, but a large body of anecdotal evidence exists. The most explicit evidence originates from the CEO of an Austrian multinational company in the building materials industry: When acquiring a German firm he stated explicitly that the acquisition of this firm should be the key to better structures and prices. His goal was either to push competitors from the market or to acquire them, the only way to improve capacity utilization and realise better prices; the price level had to be raised by 30%. He believed he could attain this goal within two years (Die Presse, June 13, 2001). Subsequently, this firm in fact sold bricks below cost, so that the German Bundeskartellamt (Federal Cartel Office) is currently investigating (Die Presse, November 8, 2001).

\textsuperscript{41} The first merger wave at the turn of the twentieth century created the big U.S. conglomerates in raw materials and energy (“mergers for monopoly”), the second one in the 1920s served to consolidate many industries with some strong point in public utilities (“mergers for oligopoly”), the third one in the 1960s strived for diversification (“merger for conglomerates”), followed by the rationalization back-to-basics mergers of the 1980s (“focus-increasing mergers”), and the size-increasing blow-up merger wave of the last decade (“global players”), which was at the same time the first international one.
these acquisitions need not be profitable: According to the pre-emptive merger hypothesis (Fridolfsson and Stennek, 1999) profit-reducing acquisitions are “successful” when forgoing the acquisition would produce even larger losses. One motive may be protection against a takeover by another company or a raider—“buying so as not to be bought” Greer (1986, p. 155), a defensive transaction, implemented not in order to gain but to avoid a loss. Mattoo (2001, p. 72) elaborates the potential disadvantages of waiting for others to merge first. Another motive can be the acquisition of an aggressive competitor (Rasmussen, 1988; Dickerson et al., 1997). A further motive, hard to test empirically but frequently stated as a corporate strategy, is the “rule-of-three” argument, stating that a company must belong to the leading three on the relevant market to survive.  

Acquisitions are unavoidable to attain such a goal, as internal growth hardly suffices, and again any potential increase in profits is second order at best, if survival is at risk. But if one firm starts to merge—for offensive or defensive reasons—its competitors have to merge as well, in what definitely are defensive acquisitions; Rajan et al. (2000) and Böckem (2001) emphasize this wave-creating bandwagon character of defensive takeovers. Such acquisitions can be evaluated by few other criteria than by their contribution to sheer size, given the secondary condition of having to retain a competitive position.  

The now modern prominence of industry-specific merger waves overrides the more aggregate explanations: Acquisitions typically bunch in periods of high and rising share values (Gort, 1969), either reflecting the general optimism prevailing in such periods, or the better evaluation of market prospects.  

Acquisitions in such periods, however, are on average less successful. The merger wave of the nineties, the largest in absolute terms if not relative to aggregated stock value, was strongly intertwined with the concurrent stock

42 The statement was phrased by B. Henderson, chairman of Boston Consulting, arguing that a stable competitive market never has more than three competitors. Notwithstanding the lack of any empirical basis for this statement (for some counter-evidence, see Ghemawat and Ghadar, 2000, as well as Veuugers, 2001) it is today’s basis for many company strategies: General Electric’s CEO Welch is famous for saying that his company must be either number one or number two in any line of its business; Daimler-Chrysler’s chairman emphasized the corporation’s goal to become the largest producer within three years, for the achievement of which the company needed one or two additional acquisitions (Die Presse, January 15, 2000), or the similar goal of Th. Middelhoof, CEO of Bertelsmann (Die Zeit, November 9, 2001, p. 23).  


44 A good example for the defensive as well as for the free cash flow hypothesis is the acquisition of Avco by Textron, for which the president of Textron gave the following reason: “We needed to do some things to rationalize the company, but we had an extremely strong balance sheet, and if we had started restructuring, we would have only gotten in a more favorable position for a takeover. . . . Hence the proposal to buy Avco. It would put a heavy burden of debt on the new company—a potent shark repellent” (Greer, 1986, 162).  

45 Some observers trace the positive correlation of mergers and stock market boom back to financing the acquisition more easily by overvalued stock (Golbe and White, 1988). This explanation ignores that the value of the target in such periods is higher as well.
market boom, and fell abruptly to a considerably lower level when the stock market boom collapsed.\textsuperscript{46}

2.2. The diversity of merger motives as a partial explanation of the paradoxes

None of the theoretical explanations of acquisitions is fully consistent with the stylized facts; either the one truly correct explanation has not been found yet, or, more likely, mergers are diverse. In addition, the confrontation gave an idea about possible explanations for acquisitions which do not increase shareholder value. The results of Gugler et al. (2000), at least qualitatively consistent with the majority of empirical studies, may provide some help in cross-classifying the different explanations and their results.

Table 6, using the data of Table 3 and Gugler et al. (2000) shows that only about 30% of the successful acquisitions may be due to the most frequently expressed motives: utilization of synergies and corporate control; they are the ones that clearly increase shareholder value and total welfare. Twenty-eight percent of all and 35% of the acquisitions by larger firms increase profits at the cost of sales, thus increasing shareholder value at the cost of consumer welfare: These acquisitions increase market power—maximizing profits by raising prices and accepting lower sales is fully consistent with oligopoly theory.

Some observers have difficulties with the lower right quadrant of Table 6. Exactly the same number as successful textbook acquisitions come out as strictly the opposite: decreasing profits and decreasing sales. This category comprises the failed acquisitions. That a fraction of acquisitions fail should come as no surprise, as acquisitions surely are one of the most risky investment decisions, taken under high uncertainty about the state of the target, and given the problems of integrating a firm with a different culture.\textsuperscript{47}

\textsuperscript{46} The value of worldwide mergers increased from $2100 billion in 1998 to $3300 billion in 1999 and $3500 billion in 2000, reaching its peak in the first quarter of 2000. In the first three quarters of 2001, merger transactions fell to less than half of those in the same period of 2000 (AK Wien, 2001), pp. 135–137.

\textsuperscript{47} Examples for mergers that ended disastrously are all those of the second British merger wave, enforced to fight international competition (Leyland, ICL, GEC), as well as e.g. AT&T/NCR, Cooper/Premark, Volvo/Renault, Volkswagen/Triumph, Daimler/AEG, Daimler/Fokker, or VOEST/Alpine.
Furthermore, some of these "failed" acquisitions may be defensive ones which didn't fail in a literal sense. They did not increase profits but prevented profit deterioration.

The most disturbing quadrant, however, is the lower left one. Maximizing growth rather than profits may be consistent with manager interest, but maximizing growth at the cost of profits? Quite a part of these acquisitions may have failed its goals as well, due to investment risks. Some evidence, however, can be found in empirical work. Some acquisitions failed, because they were induced primarily by a stock market boom,\textsuperscript{48} or an unforeseen availability of free cash, and were insufficiently planned. Free cash is in any case a good starting basis for an acquisition,\textsuperscript{49} but free cash appears to be a transient phenomenon. Only 17% of the cash-rich firms (at least one standard deviation above model forecast) are cash-rich in the following year as well, 4% only four years hence (Harford, 1999). Combined with the stylized fact of a marked increase in the bidder's share price in the year before the acquisition, at least a part of the acquisitions may be explained by a "Schnäppchen" (bargain) merger theory: The extra gains in good years are invested in acquisitions, as the managers as well as shareholders consider the good performance a result of superiority, rather than of good luck (bidders' stagnating share prices however indicate, that the managers are more convinced of their superiority than the public). As to high premiums, the expansionist strategy of the "glamor managers", and insufficient planning, the "bargains" came out unprofitable in most cases. The performance difference between value and glamor stocks (Rau and Vermeulen, 1997; Conn et al., 2001) supports the "bargain" hypothesis. The superior stock market performance contributes to the "glamor" of the management, and gives it greater leeway for decisions. Targets of these free cash bargain mergers are more frequently non-related and less attractive (Lang et al., 1991; Harford, 1999), causing bad post-acquisition performance to result (Harford, 1999). Indicators of the sketchy planning of acquisitions and "manager myopia" (Rau and Vermeulen, 1997, p. 227) were found by Newbould (1970) as well as in the case studies edited by Kaplan (2000, p. 5), revealing that "acquisitions fail because acquirers do not gain sufficient information on the target".

Why shareholders (the capital market) do not react to the fact that almost half of all acquisitions burn their money? Our knowledge of this important problem is still limited; only some hints can be given.

- First of all, the above-mentioned hubris phenomenon, stating that the managers as well as the shareholders immediately and myopically tend to consider a marked improvement in performance the result of superiority rather than of good luck.
- The hubris is aggravated by cyclical optimism in the upswing: Merger booms typically lead the stock market boom, which for its part leads the business cycle, with the booms typically collapsing in a recession.

\textsuperscript{48} See footnotes 45 and 46.

\textsuperscript{49} In addition, managers can build a strong position against a takeover by holding high cash reserves (Lang et al., 1991) or extending the size of the company by growth or acquisitions (Greer, 1986; Hughes, 1993, p. 56).
An additional hubris element can be found in the fact that, even if managers and their consultants are aware of about half of the acquisition failures, they believe to know their reasons and how to avoid them. Added to this, the consultants persuade managers to merge as they make a living from it.

- The interest in acquisitions is enforced by a free-rider problem in corporations with widely distributed share ownership: Nobody has an incentive to defray the cost of investigating into the potential benefits.

- Managers tend to overestimate the savings achieved by an acquisition, and to underestimate revenue losses.\(^{50}\)

- Probably the most important factor is failing outside control, as analysts in general support manager forecasts, and the stock market follows suit, at least partially (Houston et al., 2001).\(^{51}\)

- In many cases of defensive acquisitions, there may be no profitable alternative.

- Lastly fads and fashions in corporate governance,\(^ {52}\) which makes mergers "fashionable" (Newbould, 1970), should not be ignored: In the sixties the fashion of diversification triggered off a merger wave, whose unprofitable consequences gave rise to the next back-to-basics fashion and the corresponding merger wave. Today's fashion appears to comprise overestimation of scale economies and synergies, the bewildering "rule of three", and the mystification of "global players".

\[2.3.\text{ The merger paradoxes alleviated?}\]

The arguments of Section 2.2 offer at least partial explanations for paradox 1, the acquisition paradox—why bidders press for acquisitions, when they should know from a long history of acquisitions that they face a high probability of losing money at the gain of the target: Manager as well as shareholder hubris, over-optimism of managers, consultants and even outside analysts, band-wagon effects as well as fads and fashions appear to play a leading role. Paradoxes 2 and 3, the stock market paradox (why does the share market reveal the losses with a long lag) and the related glamor paradox (acquisitions by glamor bidders show the largest announcement gains and the largest long-run losses), may be explained by the above-mentioned over-optimism of all participants on the one hand, and the short horizon of most market share transactions on the other. The politically most crucial layoff paradox—why do academic investigations uncover only small effects of acquisitions on layoffs, while this is the most discussed

\(^{50}\) In trying to convince the market of the advantages of the acquisition, they attribute cost savings to the acquisition, which could have been achieved even without merging.

\(^{51}\) Expert over-optimism and the prevailing fashion in corporate governance make the often-claimed efficiency defence a dangerous instrument, as most experts (save some economists) will tend to detect important efficiency-increasing elements in advance, which will not materialize after the merger.

\(^{52}\) According to The Economist (2000, p. 17) "corporate governance [is] a fancy term for the rules used to align managers' interests with those of all shareholders".
consequence in the media and in the public—remains unexplained. For whatever reason most merger studies do not deal with this important aspect.

3. The macro-consequences of mergers and the increasing importance of competition policy

The previous sections dealt primarily with the effects of acquisitions on business. Even these micro-results turned out not to be all that promising, implying a still worse macroeconomic performance. Acquisitions, unprofitable even for business, can only in rare cases improve total welfare or even consumer welfare; those profitable not by increasing efficiency but by fostering market power surely reduce consumer wealth, increasing total welfare only if producer gains exceed consumer losses. What have we learnt about the economic and social consequences of mergers in the last three decades, consequences beyond the effects on the concerned corporations? Again the diversity of mergers becomes relevant. Different types of mergers must have different macro-effects; in addition, the effects of mergers on concentration and of concentration on welfare have to investigated.

3.1. Welfare effects in merger theory

Economic theory deals primarily with horizontal mergers, as these affect competition directly; vertical and conglomerate mergers do not change the number of firms competing in any one market. Vertical mergers do not affect competition in the static standard model, even if one of the merging firms is a monopolist; the rents having been extracted before. Vertical integration, however, contributes to aggregate concentration, and may alleviate foreclosure of markets to rivals (Ordover et al., 1990), tying the sale of one product to the sale of another, or resale price maintenance (Viscusi et al., 1998, pp. 239–259). Vertical integration may reduce transaction costs, but influence costs (Milgrom and Roberts, 1992, pp. 193–194) can easily overcompensate those savings. Looking back to the stylized facts, vertical mergers are more likely to be unprofitable than horizontal ones. They seriously lost importance in manufacturing—giving place to outsourcing and divestures—but appear to be gaining importance in services and the information/media sector.

Pure conglomerate mergers—if not enhancing efficiency—reduce welfare; as in the mainstream capital-market model, risk can be reduced more efficiently by shareholder

---

53 In the rest of this paper the distinction between mergers and tender offers is of minor importance, and so the term "merger" is used as in most of the "merger" literature, comprising all forms of takeovers.

54 Influence costs are the costs incurred in attempts to influence others' decisions in a self-interested fashion, in the attempt to counter such influence activities by others, and the degradation of the quality of decisions through such influence.

55 Most authors distinguish among conglomerate mergers between product extension, market extension and pure conglomerate mergers. As a consequence of by and large high substitution elasticities, the first two are included into horizontal mergers, having similar effects in most cases.
portfolio management; only managers can be interested in spreading risk at the firm level. Additional welfare-reducing effects may result from improved opportunities for predatory pricing, from reciprocal dealing or, again, from increasing influence costs. Some small benefits of conglomerate mergers may be found beyond the traditional portfolio model, for example, risk-spreading for small shareholders resulting from the indivisibility of shares, utilization of managerial information advantages, or higher credit limits as a consequence of the (relatively) reduced risk. The stylized facts reveal, however, that pure conglomerate mergers are by far the most unprofitable.

For expansionary horizontal mergers, a policy trade-off arises between the potential increase in efficiency and the probable reduction of competition. Levin (1990), modeling a Cournot competition, finds profitable horizontal mergers increase welfare under rather general assumptions, especially if the merging firms have a less than 50% pre-merger market share. However, “...firms with large market shares must achieve impressive synergies if their merger is to reduce price”, as Farell and Shapiro (1990, p. 109), show for mergers between Cournot competitors. Especially acquisitions creating the largest firm or further enlarging the largest one reduce welfare (McAffee and Williams, 1992). In profitable contractionary mergers, consumer welfare is hurt at the cost of producer gains. Focus-increasing mergers tend to be the most profitable, from a relative point of view; and most likely to achieve synergies, but create the strongest market power and the greatest potential for soaring prices. Unprofitable horizontal mergers may increase consumer welfare, at least in the short run, if they increase sales. Such a constellation, however, is unlikely to be a stable equilibrium.

The empirical literature confirms that profitable acquisitions are not too frequent, and that they are heavily concentrated among the purely horizontal and focus-increasing ones: At best half of the acquisitions are profitable—as shown above—and half of these are contractionary. Thus total welfare may increase in half of the mergers at best, and consumers win in no more than a quarter of the mergers; Stewart and Kim (1993) find more negative results. The macro-economic deadweight losses are even larger than the share of unprofitable takeovers indicates, as the non-merging competitors obtain leeway to increase their prices as well (see, for example, the case of airlines in Section 1.4).

Little evidence can be found for arguments stressing positive dynamic effects resulting from mergers. Asset restructuring and capability transfer are two arguments in favor; but with unchanged investment and R&D expenditures, considerable after-merger dynamics appear unlikely, and the stylized facts do not provide evidence for them either. Business economists put heavy stress on the beneficial operation of corporate control, arguing that hostile mergers allocate corporate assets to the respective best management teams. The empirical evidence, however, is ambiguous at best. Hostile takeovers are a small fraction only, their targets are by no means more underperforming, management turnover is only slightly higher, and hostile takeovers are rarely more profitable.

56 They found shrinking consumer welfare in all of the investigated 59 industries.
3.2. Mergers and concentration

United States’ antitrust policy since Reagan and the EU Commission tend to regard increasing returns and size as more important than the merger-induced decrease in the number of firms, following the slogan that “it only takes two to make a horse race”. This raises two questions. The influence of mergers on concentration, and of concentration on competition.

Not much research is available on the effects of mergers on concentration. Globalization, the opening of the markets by European integration, deregulation, and the concurrent fashion of bust-ups, made concentration appear as a second-order problem in, say, the last two decades. Nevertheless, macro-concentration is, at least, moving ahead (European Commission, 1996), and Hughes (1993) emphasized a significant contribution of mergers to market concentration. Other economists hold that mergers have no significant influence on concentration, as not allowing mergers would be compensated by faster internal growth; the stylized facts, examined in Section 1, do reveal a slightly faster growth of bidders, but do not suggest that they are that much more efficient and profitable. The European Commission (1996, p. 92) demonstrates that the industries with the fastest-growing concentration are exactly those with the highest merger activity,57 that is, that mergers contribute more strongly to concentration than internal growth.

This raises the question of the influence of concentration on competition, and the underrated significance of the number of competitors. With the help of game theory Selten (1973) demonstrated that in markets with five or fewer incumbents, almost all the variation in competitive conduct occurs upon entry of the fourth firm. The probability of collusion is 100% with three competitors or less, plunges to 22% with four, and is further reduced to a negligible 1% with five. So Selten concluded that “four are few and six are many”. Dufwenberg and Gneezy (2000) obtained a similar result for experimental price-competition markets, for which the Bertrand solution predicts well only for at least three to four competitors (after some learning). Bresnahan and Reiss (1991) confirm Selten’s results in a model of successive entry in an atomistic market. The results of their model are illustrated by the bold lines in Figure 2. The entry threshold ratio $s/s_{eq}$ measures the relation of variable profits per customer in a monopoly and in a competitive market (if the fifth entrant makes the market competitive $s/s_{eq} = 1$). Empirical tests for entry in 202 isolated markets corroborated the model; some results are shown in Figure 2, suggesting that in these professional markets three to four are “many”. For airlines Barla (2000, p. 707) estimates that with three competitors the price is only $\frac{1}{3}$% lower than in markets with two, but the fourth competitor induces prices to fall by some 7%. According to Lamm (1991), market share gains of any one of the three largest food retailers increase

57 NACE 326 (transmission equipment + 34 percentage points), 418 (starch + 31), 346 (aerospace + 17), 374 (clocks and watches + 14), 341 (insulated wires and cables + 14), 346 (domestic electric appliances + 14), 342 (electric machinery + 10 percentage points). In 1985, 150 producers of white goods supplied three quarters of the market; in 1995, only seven groups were left, holding five sixths of the market (European Commission 1996, 157, footnote 1).
prices; contrariwise, an increase in the market share of the fourth-largest decreases prices. Collins and Preston (1969) found a 10% increase of the four-firm concentration ratio (CRF4) followed by a surge in the price-cost margin of one percentage point, Utton (1986) that the profit of the market leader in a narrow oligopoly (CR2 > 50%) is considerably higher if his market share is more than double that of his main competitor. Geroski (1981) observed lower mark-ups for a CR5-ratio below 75%, and a markedly higher one for those exceeding 85%. Verbongen (1996) found considerably higher price-cost margins for automobiles for firms with high market shares. Investigating the markets of European leading firms, Veugeler (2001, chap. 7) found that growth in market concentration has a significant negative impact on productivity growth and that high concentration is associated with higher price-cost margins.
Summing up, the empirical evidence indicates that small numbers of competitors are clearly detrimental to competition. Therefore, the rule-of-three strategy of the large corporations forces competition policy to keep a watchful eye on the number of relevant competitors in the market. The problem may be even more significant in services and the former public utilities than in manufacturing. At least in European manufacturing the competitive positions of market leaders appear to have changed considerably in the past ten years (Veugelers, 2001, chap. 5.2.1), indicating that competition did work. Veugeler’s results are, however, in contrast to Mueller’s (1986) observation of long-term stability in the rank order of leading American firms, and may, therefore, reflect some time-specific elements.58

A further potential welfare reduction may result from the fact that large corporations have large lobbying potential and that many examples demonstrate that governments cannot afford a hands-off policy if the “national champion” runs into trouble. The increasing number of cross-border acquisitions, which have largely replaced green-field foreign investment, combined with the stylized fact that asset restructuring normally happens at the cost of the (foreign) target, implies dire labor market and regional effects.

3.3. Takeovers in (Continental) Europe

Merger research focuses heavily on the United States and Great Britain, on the one hand, and on large manufacturing corporations (an to some extent banks), on the other. Sixty-two of the studies collected for this research deal with American or British mergers, six with Japanese, two with those of an international collection of firms, while only six deal with Continental European mergers. 87% of the American mergers are too small to be included in the merger files (Ravenscraft and Scherer, 1987, p. 59), and cannot, therefore, be the subject of empirical studies. Both aspects raise the question, whether and to what extent one can carry over to Continental Europe the stylized facts elaborated in Section 1.

At first sight, mergers appear to be of minor importance in Continental Europe. The share of corporations is much smaller and the capital market has considerably less importance than in the Anglo-Saxon economic space. Continental European firms tend to finance investment by bank loans rather than by issue of shares. Scattered share ownership is uncharacteristic,59 and among the dominating owners the European banks’ stake surpasses those of Anglo-American banks by far. Transfer of control is managed by block trading and syndicates rather than by tender offers (Franks and Mayer, 1998; Renneboog, 2000; Dherment-Ferere et al., 2001). Hostile takeovers appear to be rare

58 Veugeler’s results are subject to three reservations: Firstly, the valuable collection of firm data has to fight with the inconsistencies and breaks in aggregate EUROSTAT statistics (nevertheless, it satisfies an urgent need, and is the most readily available). Secondly, most of the changes in the top ranks may result from large acquisitions rather than from competition per se. Thirdly, the results should not be extrapolated, as the impact of the formation of the Single Market and—after a while—of the recent merger wave will fade out.

59 In Germany the block of widely dispersed shares of quoted companies was only 28% in 1991–1996 (Lehmann and Weigand, 2000, p. 167).
events. A market for corporate control in the Anglo-Saxon sense does not exist, and in most cases, even more so, cannot exist, due to the lack of the concentrated share ownership. The key centre of control for the corporations, therefore, is not the capital market but the Supervisory Board, dominated by large block holders and banks.

Evidence, however, has been accumulating that takeovers have not been less frequent in Continental Europe; they have only taken on a different form, namely block trading.\(^6^0\) Quite often, block trading was hostile in nature (Jenkinson and Ljungqvist, 2001), as most block-trading took place between institutional investors; however, its character as a control instrument has been questioned (Renneboog, 2000). In addition to the tradition of block trades in the last couple of years, American-style takeovers sky-rocketed (Table 7) in most European countries, and probably overtook the value of American ones in 2000, "mariage à la mode" was the title of the European Business Survey of The Economist (2000, p. 10). Did these Continental European acquisitions have more positive effects than their Anglo-American counterparts? Did they increase efficiency rather than create additional market power? Are Continental European mergers an efficient instrument of corporate control?

Due to the heavy concentration of share ownership in Continental Europe the principal-agent problem is less severe than under the Anglo-American governance system, so that a market for corporate control can contribute little, quite apart from its deficient performance in the United States (see Section 2.1). Owner protection against manager arbitrariness is much less urgent in Europe than consumer protection against corporation market power. Mergers are, of course, by no means an appropriate instrument to reduce market power. Consumers, however, could profit from an increase in efficiency of corporations: All problems of measurement agreed, E.U. corporations are still less efficient than their U.S. counterparts (European Commission, 2001, pp. 21-25). Lehmann and Weigand (2000, pp. 174-81) discover a significant negative relation between the return on total assets and ownership concentration in the short run, with family-controlled firms having the lowest, and bank-controlled corporations the highest ROA (pp. 186, 188). In the long run, however, ownership concentration improves the profitability of firms exposed to the stock market. Lehmann and Weigand (2000, p. 189) find no differences as to the group of majority owners in the long run, while Cable (1985) and

\(^{60}\) Even in the United States block trades are more frequent than mergers (Bethel et al., 1998).

### Table 7. Share of published mergers.

<table>
<thead>
<tr>
<th></th>
<th>United States of America</th>
<th>Europe</th>
<th>Asia</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic (%)</td>
<td>Cross-border (%)</td>
<td>Domestic (%)</td>
<td>Cross-border (%)</td>
</tr>
<tr>
<td>1985</td>
<td>83</td>
<td>5</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>1999</td>
<td>38</td>
<td>11</td>
<td>34</td>
<td>10</td>
</tr>
</tbody>
</table>

Gorton and Schmid (2000) emphasize that bank control significantly improves corporate performance in general.

Even if ownership concentration may be favorable to efficiency, clear evidence is lacking that ownership concentration by way of acquisition increases the efficiency of Continental European firms: The Continental European studies presented in Tables 1 and 2 do not indicate any difference to the Anglo-American ones—they also don't show any clear improvement. Lehmann and Weigand (2000, p. 187) find a negative influence of ownership change in the short run and no influence in the long run. Boehmer (2000) emphasizes that takeovers increase bidder value, but not for firms controlled by financial institutions; bank control is beneficial if and only if counterbalanced by a second large shareholder. Köke (2000) reports some controlling power of block trading for smaller German corporations, if the acquirers are industrial firms, so far as managerial turnover increased; most block-trading, however, took place between institutional investors. So far the results have been ambiguous and there is no evidence that acquisitions in Continental Europe yield better results than the better researched acquisitions in the United States.

The conviction that efficiency increases automatically with size, and that a corporation can survive only as a global player, belonging to the top three, may even be stronger in Europe than in the United States. Little evidence corroborates this conviction: Even if large firms are more efficient in a technical sense, they cannot translate this into higher profits. Lehmann and Weigand (2000, p. 182) found significantly lower returns among large corporations. The conviction that giant size and being a global player are preconditions for survival is shared, nevertheless, by European managers as well as by European politicians, and especially by some Directorates of the European Commission; they appear to consider mergers as the king’s way to make Europe competitive and to challenge American dominance. The danger of allowing inefficient and wealth-reducing mergers, therefore, is not smaller in Continental Europe than in the United States or in Great Britain. No evidence whatsoever exists, that the stylized facts and the consequences of mergers are different in Europe.

3.4. Increasing importance of competition policy

There are at least three arguments in favor of increased importance of merger policy and a stricter merger policy. The first is that concentration is a quickly increasing problem, even if it—contrary to widely held convictions—may not have been a problem in the past, due to globalization and integration-induced market growth. Having reached quite a high level, market expansion by integration will gradually lose clout as a countervailing power to concentration. The potentially concentration-reducing bust-ups will come to an end as well, with the elimination of the blunders created by the merger wave of the sixties. Concentration progresses fastest in the advertising-intensive industries (according

61 Defined as turnover of blockholdings among five groups of ownership between 1991 and 1996.
to the sample in Veugelers, 2001, Table 5.1.2, concentration grew by 21% over the period 1987/97 while de-concentration prevailed in the R&D-intensive sectors (−4%).

The second argument, already mentioned in previous sections, is the increasing importance of mergers with the explicit goal of market dominance, as implicit in the famous rule of three. Motivated by the superficial advice of their consultants, the big corporations strive hard to belong to the top three in their respective market, and sometimes they concentrate vehemently on narrowly limited markets to achieve this goal. Starting in the United States, in backlash to the conglomerate-merger wave of the sixties, this movement recently spread over to Europe (Veugelers, 2001, chap. 5.6.5). In addition, cross-border takeovers started skyrocketing with domestic markets already under control, the corporations’ next step is to control E.U. markets, later on those of the triad. In the short run, this may increase the number of competitors, but this will be a short-lived effect, and will easily overcompensate any further extension of the markets.

The third argument is the increasing importance of mergers in the service sector. By far the most merger studies deal with manufacturing, some with banking, very few with the service sector. But the share of mergers in the service sector is increasing steeply (Andrade, 2001). In many European service sectors competition appears to be considerably less stiff than in manufacturing, so that these mergers are even more problematic. And among the service sector mergers, those in the former public utilities are the most dangerous: Most of these industries contain at least some element of natural monopolies (in most cases unavoidably); network effects and sunk costs tend to produce considerable scale effects, and a tradition of monopoly and collusion exists in those sectors, frequently camouflaged as safeguard for maintenance. Tendencies prevail to dominate extended markets by vertical forward or backward expansion, or by mergers with firms producing substitutes. Examples for the former are the content-media cluster of Bertelsmann and Kirch, the software-network cluster of Microsoft, or the efforts of Deutsche Bundesbahn to establish a logistics cluster. Typical for the latter are the attempts of electricity suppliers to integrate with gas suppliers, of cable phone companies to merge with cellular ones, or of banks to unite with insurance companies. Privatization adds an additional impetus to these tendencies: Soon after deregulation a start-up boom is typical, but soon concentration by merger sets in. In the United States, 215 new airlines were founded after deregulation, and the number of trucking firms doubled (Bleeke, 1990). Before deregulation the top eight airline companies controlled 80% of the market (revenue passenger miles), afterwards 92% (Bleeke, 1990, p. 161); the number of companies controlling the United States’ media market decreased from 46 in 1981 to six in 1993 (Karier, 1993, p. 146), prices increased considerably (Kim and Singal, 1993). In Europe, concentration proceeds even faster, as fewer, if any, new firms step in after

62 See footnote 42.
63 The data of this study, however, comprises the years 1987, 1992 and 1997, so that it ends when the new style of concentration on core activities and cross-border mergers began gaining ground.
64 See Table 7 in Section 3.3.
privatization. American merger policy attempted the unbundling of firms with awesome market power which sometimes succeeds (AT&T) and at other times fails (Microsoft); in any case "unbundling is complicated" (Newberry), and probably impossible in Europe. Therefore, it is wise to avoid concentration from the beginning.

Empirical merger research revealed that merger policy has been too lax worldwide. The research results unveiled the myth that mergers increase efficiency and improve the competitive position of countries. About half of the mergers did not attain even the business goal of improving profits; about a quarter increased profits by market-power induced price rises, and only one quarter at best augmented consumer welfare. Nevertheless, of about 1850 merger deals notified to the E.U. Commission for clearance in the period 1990 to mid-2001, only 18 were prohibited (E.U. Institutions Press Releases, 2001). The negative effects of this generous merger policy have been attenuated by the fast market extension due to the realization of the Single Market and globalization in general. Nevertheless the concentration of market power is remarkable—and potentially dangerous—in several sectors, for example retail sale, media, or most of the former public utilities. Recent corporate strategies (rule of three, global player) exacerbate this trend. Merger policy, therefore, should not be softened, e.g. by allowing an efficiency defence or lowering threshold levels; quite on the contrary, definitions of markets and dominance should be sharpened, and more notice should be taken of the respective number of competitors, and to "creeping takeovers", resulting from the continuous purchases of small numbers of shares at the stock exchange.

4. What have we learnt, what will we have to learn, and what should policy learn?—a short summary

What have economists learnt from three decades of merger research, from a great number of different and opposing merger theories, trying to explain a great number of different mergers in different forms, with different motives, combining different types of enterprises, financed differently, and with widely diverging results? Ten lessons can be distinguished involving varying degrees of learning success.

1. Theory suggests that mergers do not automatically increase productivity, and therefore do not automatically create wealth; specific conditions are required to make mergers profitable for consumers, to which most mergers do not come up. No more than a quarter of the mergers increase the efficiency of production, a precondition of an increase in consumer welfare, a quarter increases firm market power: Almost two-fifths of the large firms increase profit and reduce sales following an acquisition.

65 The market share of the two largest German electricity wholesale distributors in the communal and regional markets increased from 46% in 1997 to 73% in mid-2000, largely due to acquisitions (Hillebrand, 2001).
66 See footnote 51.
2. The “typical” merger does not exist. Researchers as well as politicians have to differentiate and—given a wide enough perspective allowing neglect of all the nasty details—can differentiate. The widely diverging effects of mergers result from their different forms and motives. Ceteris paribus mergers are more likely to achieve at least their business goals, if they are

- horizontal, especially if they are focus-increasing—in this case business success is attained at the cost of increased market power and prices;
- cash-financed rather than stock-financed;
- strategic rather than financial;
- the bidder is a value rather than a glamor bidder.

3. The different types of mergers need different explanations: In the nineties, market power (“global player”) and defensive motives (“buy not to be bought”) may have been the main explanation, with deregulation as the dominant triggering event. Realization of synergies and reallocation of assets via mechanisms of corporate control appear to play a lesser role.

4. The stock market can provide no help in assessing mergers: Its horizon is limited, tending to evaluate mergers overly optimistic at the announcement, and needing at least several quarters to realize their loss potential.

5. Concentration through mergers is still a problem, even if the extension of markets by integration and globalization made it less dangerous in the past; it is a problem in quite a number of markets, and will become more so in the near future: Market extension will unavoidably slow down, and the corporations’ goal of being among the three leading players in the world market creates strong oligopolistic power, if the competitive fringe is not extremely strong. The likelihood of working competition with fewer than four to five competitors is rather small.

6. The small share of mergers enhancing consumer wealth and the low quota of mergers prohibited by the EU reveal that competition policy has been too lax on both sides of the Atlantic. Mergers are an inefficient instrument to increase efficiency, and even so, sheer firm size as such does not guarantee efficiency and competitiveness.

7. The results of Anglo-American merger studies are valid for Continental European mergers as well. No indication exists that the share of inefficient acquisitions, and of acquisitions reducing consumer welfare is smaller on the Continent, notwithstanding the fact that block trades among majority owners dominated mergers in the past. The supremacy of majority owners, however, implies that consumer protection has to rank higher as a goal of merger policy in Europe than shareholder protection.

8. Not only managers, their consultants, and—to a lesser extent—the share market overestimate the success of mergers; the same over-optimism is true for the independent analysts. This bias makes an efficiency defence a dangerous instrument of merger control; beyond that, it is next to impossible to undo the merger in case of non-arrival of the expected increase in efficiency.

9. Mergers in the former public utilities reduce consumer wealth more than those in manufacturing, as it is easy for the firms in these industries to gain high market
shares, and consequently, strong market power. Regulatory agencies do not appear to be fully aware of the necessity of a sufficient number of independent competitors, especially in these industries.

10. Some types of mergers appear to be especially harmful and should be generally banned. Most important among those are: acquisitions by the respective dominating firm, mergers reducing the number of relevant firms below five in the respective market, vertical mergers in network industries, and acquisitions of firms producing substitutes in the field of the former public utilities.

References


WHAT DO WE KNOW ABOUT SUCCESS AND FAILURE MERGERS?


Friedman, M., Essays in Positive Economics, Chicago, 1953.
WHAT DO WE KNOW ABOUT SUCCESS AND FAILURE MERGERS?


WHAT DO WE KNOW ABOUT SUCCESS AND FAILURE MERGERS?


Biography

Gunther Tichy is head of the Institute of Technology Assessment at the Austrian Academy of Sciences and consultant at the Austrian Institute of Economic Research. He was previously tenured professor of Economics at the University of Graz. After finishing his studies at the University of Vienna and Columbia University he worked at the Austrian Institute of Economic Research and later as the head of the research staff of a larger Austrian bank. He published books on business cycles. His recent fields of research are Industrial economics and Technology policy.