Corporate Mergers and Acquisitions

Evidence on Profitability

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Foreword

The corporate takeover – the acquisition by one corporation of a controlling interest in the shares of another – emerged as an important phenomenon around the turn of the last century, when the corporation became the dominant form of business organization. It has always attracted attention – especially during the rising phase of its recurring cyclical pattern – not only from analysts and legislators, but also from the public at large. Only in today's environment, however, could a non-fictional account of a takeover become a popular best-seller [see Burrough and Helyar, 1989]. This is only partly explainable by RJR Nabisco's gigantic size and the notoriety of the exotically termed "junk bond." The deeper reason is the widespread if still inchoate recognition that the global economic order is changing fundamentally, that the process is likely to continue indefinitely, and that traditional structures and policies may need to be reconsidered.

Much of the debate revolves around the issue of corporate bigness. Is bigness the essential concomitant of efficiency and competitiveness, in which case it is to be welcomed and encouraged? Or is it the mark of sclerosis and unwieldiness, in which case a very different response is called for? Since firms that become big generally grow by acquiring other firms, the question of the economic efficacy of takeovers comes to the forefront. This study is concerned with one important aspect of that question: whether takeovers cause the acquired assets to be operated more profitably than before.

Although this question is straightforward, it is not easy to answer. For one thing, only a minority of acquired firms retain the separate identity that best facilitates the tracking of post-acquisition performance. Tracking the post-acquisition performances of acquired firms that have lost their identity is a much more difficult and tentative exercise. Another set of difficulties resides in the fact that the shares of both firms, of only one firm, or of neither firm in a takeover transaction may be publicly traded. Hence, the analyst is only sometimes able to utilize both accounting and stock-market measures of profitability: more often only accounting measures are available. This is no minor consideration. There are important substantive differences between the measures, as there are between various methodologies for developing them. These differences go far to explain the opposing judgments – each usually based on only one type of measure – of the effect of takeovers on shareholder wealth. For example, judgments based on stock-market measures tend to be more favourable than those based on accounting measures.

This study is among the few that develop both types of measures, reflecting the performances of some 100 acquired Canadian firms, by means of a common methodology. Its principal finding is that the takeover, as a form of corporate growth in Canada, does not improve the overall profitability of the acquired assets: it tends to leave it unchanged. It also finds that if the retrospective view is long enough, the ostensibly different assessments of takeover profitability derived from stock-market and accounting measures tend to converge towards the unfavourable. Another major finding is that firms that chronically perform below their industry average are far more likely to become takeover targets than their more profitable peers. Finally, while it is always difficult to improve the profitability of an acquired firm, the difficulties seem less intractable when the firm is a below-average performer.

Profitability is only one of the criteria by which the economic effects of takeovers are determined. Hence, the study ends with a research agenda to build on the findings of this study to determine other criteria and effects, and also to illuminate their policy implications.

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Judith Maxwell
Chairman

Abstract

Introduction

The corporate takeover, whereby one corporation acquires a controlling interest in the shares of another, has been one of the most striking features of the course of economic events in North America and Western Europe since the early 1980s. Though hardly a new phenomenon (and one that has always attracted considerable analytical attention), the volume and monetary value of takeovers have historically tended to fluctuate together and cyclically. The interest they have aroused in the popular as well as in the legislative mind has tended to fluctuate accordingly. That interest is intense at the moment because the current takeover wave is unprecedented in monetary value, and probably in volume as well. It is also concomitant with the similarly unprecedented technological advances and the dissolution of international trade barriers that together are transforming the world's economic order. (Another reason for the fascination with the current wave is the enormous reliance by acquiring firms on debt financing, particularly, in the United States, on that singular debt instrument, the "junk bond.")

The emergence of a new and very different global dispensation has naturally provoked debate as to the kind of firms most likely to survive and prosper in it. One school of thought holds that only large firms, especially diversified *M*-form firms, can meet the challenge. Only they can generate the wherewithal to undertake the requisite costly and risky R&D and adapt quickly and effectively to changing circumstances. Since acquisitions of other firms usually figure prominently in the history of such firms, this implies that takeovers perform a progressive social function. This prospect is ostensibly enhanced by the workings of the "market for corporate control."

Analysts adopting the financial-economics methodological approach attempt to show that takeovers, on the whole, are wealth-enhancing events. According to this model, groups of managers vie with one another for the responsibility of administering shareholders' assets. Any incumbent managerial team that discharges that responsibility inadequately can expect eventually to be displaced, in the wake of a takeover, by another team that must subsequently do a better job of maximizing shareholder wealth if it is to avoid the same fate.

This optimistic view of the takeover is not, and has never been, universally held. Analysts adopting the older industrial-organization methodology unequivocally reject the notion that takeovers generally enhance society's wealth by transferring corporate assets from less to more efficient hands. It was long ago suggested by theorists that the functional differences between those who own corporations, the shareholders, and those who administer them, the managers, imply that they also have divergent objectives. Thus the maximization of profit sought by shareholders is often accompanied by, and to a perhaps significant degree subordinated to, other managerial objectives – a situation most likely to arise in large corporations whose shares are widely held. It could prompt activities, such as the acquisition of other firms, that are better calculated to serve the interests of managers than those of shareholders.

Consideration of these opposing assessments of the profitability of takeovers is complicated not only by major methodological differences, but also because each rests upon a different type of data. The financial-economics assessment rests entirely upon stock-market data while the industrial-organization assessment rests, almost invariably, only upon accounting data.

The present study is largely in the industrial-organization methodological tradition. It attempts to advance the discussion with respect to Canadian experience during the 21-year period between 1963 and 1983 by utilizing both types of data. It focuses on the only acquired Canadian firms whose pre- and post-acquisition performances generated both stock-market and accounting data, namely, those partially acquired firms that were publicly traded after, as well as before, acquisition.

Takeover Trends in North America

It is no easy task to track aggregate takeover trends over time in any relevant country, still less to identify the macroeconomic factors that systematically influence them. This is due partly to debilitating data deficiencies, but also to the even more serious lack of an adequate conceptual framework for analysing the determinants of the level of takeover activity and its monetary value. The best available data refer to American experience, and they show that both the level and the monetary value of acquisition activity follow a strongly cyclical pattern. A similar tendency is also reflected, with respect to the level of activity, by the much less complete Canadian data.

Relatively few attempts have been made to explain variations in the aggregate level and value of acquisition activity. What attempts have been made also refer to American experience: their results have been disappointing, and there is no consensus among them. Some argue that the takeover phenomenon should be examined in the context of the joint workings of both financial and industrial markets; others advocate focusing on selected industrial markets. Only two macroeconomic variables have consistently been found to influence aggregate takeover activity: the levels of GNP and security prices.

The Many-Sided Corporate Takeover

There are many, often overlapping real-market, financial-market, and managerial considerations that could reasonably prompt a firm to expand by acquiring the desired assets and facilities in the guise of another firm, rather than by purchasing the assets from their respective suppliers and developing the facilities from scratch. Although the real-market factors vary, most of these considerations apply as fully to horizontal acquisitions as to vertical or conglomerate ones. They collectively explain how it can come about that a firm is worth more to another firm than it is to its own shareholders.

Numerous and varied though they are, however, these considerations boil down to a single common motivation; and that is, are the acquired assets more profitable than they were before? This is a major (though by no means the only) criterion for the retrospective assessment of the economic efficacy of the transaction.

Evidence on Profitability: Two Methodologies

A great deal of research has been done on the profitability of takeovers, and the assessment tends (at least at first blush) to depend heavily upon methodology and type of data. On the assumption that share prices immediately and fully reflect all relevant publicly available information, analysts adhering to the financial-economics school utilize a model of share-price determination to discern the stock market's reaction to the public announcement of the takeover. They typically (and not surprisingly) find that the market bestows benefits upon shareholders of target firms. More ambiguous is this school's view of the impact upon shareholders of acquiring firms. According to this view, they tend either to end up no better off than before or slightly worse off: the longer the post-announcement observation interval, the more negative the impact. On the whole, however, the event's overall effect upon shareholder wealth is deemed to be positive.

The various approaches adopted by practitioners of the industrial-organization methodology essentially consist of comparing, on the basis of accounting data for a number of years, the pre- and post-acquisition performances of firms involved in takeovers. Numerous studies using different performance measures, over comparison intervals of different durations, have been done on the experience of different countries during different historical periods. Without exception, they conclude that the post-acquisition profitability of acquired assets either decreases or, at best, remains unchanged.

The finding that stock-market reactions to takeovers tend to become more unfavourable as the post-acquisition interval lengthens, suggests that the actual disparity between the contending assessments may be smaller than previously thought. Findings to this effect also emerge from a large-scale study by Mueller [1980] of the experience of seven European countries, which belongs to the industrial-organization school but utilizes both stock-market and accounting data.

New Canadian Research

These encouraging results are further reinforced by the new evidence on Canadian experience reported in the present study, in which we make use of and add to evidence from a study by Jog and Riding [1988]. Theirs is another of the very few exercises that utilize both stock-market and accounting data. It is methodologically in the same tradition as Mueller's study of European experience but its analysis is significantly more extensive than most studies in that tradition. It is also fairly distinctive in that it explicitly takes relative risk into account in measuring relative profitability, as (after their own fashion) do studies adopting the financial-economics methodology.

The present study's most important finding is that Canadian takeovers as a phenomenon do not cause corporate assets to be utilized more profitably, any more than takeovers in other countries do. The approximately four-in-ten takeovers that report an increase in their average profits are offset by the equal, approximately four-in-ten that report a decrease. (The remaining approximately two-in-ten takeovers report unchanged average profits.) As a group, the 100-odd acquired firms that are studied report unchanged average profits. The 2:2:1 proportion applies to takeovers in which the acquiring firm is Canadian-owned as well as to those in which it is foreign-owned. It also applies to both horizontal and non-horizontal takeovers.

Though hardly favourable to the takeover as an allocative device, these results seem less unfavourable than corresponding results for the United States (as well as for other countries). This may be because the shares of large Canadian corporations tend to be less widely held than those of their American counterparts. Hence, the Canadian corporate scene may offer proportionately fewer opportunities for imprudent acquisitions than does the American.

The preacquisition profit performances of the acquired firms, relative to their industry peers, are also examined. Firms with superior performance are termed "winners," firms with inferior performances are termed "losers," and firms whose performance was equal to that of their peers are termed "average performers." This categorization has two objectives. Firstly, to determine the qualitative category to which each acquired firm previously belonged, an exercise which is relevant in itself. Secondly, to compare the preacquisition and post-acquisition performances of the firms in each category. The study finds that approximately 40 per cent of the firms had been losers, approximately 40 per cent had been average performers, and approximately 20 per cent had been winners. This lends support to the view that failing firms or lacklustre performers are more likely to become takeover targets than successful firms.

The findings of the comparison of pre- and post-acquisition performance is particularly interesting. Well over one half of the losers report improved post-acquisition performances, but only one third of the average performers and one quarter of the winners do so. Of the firms reporting improved performances, once again, well over one half had been losers. Only one third of them had been average performers and a mere one tenth had been winners. This suggests, *prima facie*, that difficult though it is to improve the profit performance of any acquired firm, it may be less difficult to make a silk purse from a sow's ear in this field of endeavour than in others.

Why this should be so is a question that can only be addressed by means of case studies, which is beyond the scope of the study. We do, however, refer briefly to the discussion in the literature of the manifold organizational problems to which takeovers are prone, with special reference to the challenge of enlisting anew the best efforts of the retained managers and staff of the acquired firm. On the assumption that the more receptive these people are to the takeover, the more unreservedly will they commit themselves to making it a success, it is suggested that a suitable attitude is far more likely to be obtained among employees of erstwhile losers than among those of either erstwhile winners or erstwhile average-performers. Most employees of erstwhile losers are aware that the old order was not working well, that major changes are needed, and that they were bound to occur eventually in one form or another.

A Research Agenda

Other aspects of the takeover phenomenon, in addition to its profitability, need to be studied in order to discern its policy implications. The study concludes with an outline of several of these potential research areas. They range from the redistributive and R&D effects of takeovers to their impact on the concentration levels and contestability of Canadian industries.

Corporate Mergers and Acquisitions: Evidence on Profitability

1 Introduction

The Current Takeover Wave in its Wider Context

The corporate takeover[1] – the acquisition of one corporation by another – has been a common occurrence since the late 19th century, when the limited-liability company became the dominant form of business enterprise. But, as the evidence presented in Chapter 2 shows, it has also been a highly cyclical phenomenon, and the intensity of the interest it has attracted has tended to rise and fall with the recurring cycles. During the last several years, Canada, the United States, the United Kingdom, and Western Europe have all been experiencing a takeover cycle that already ranks with – if it does not surpass – the strongest (either in terms of level of activity or of total expenditure) of the previous cycles. It has, correspondingly, attracted public interest of unprecedented intensity.

This cycle is not occurring in a vacuum any more than did its predecessors, but the nature of the underlying forces is still very much an open question. Reference will be made in Chapter 2 to the limited and highly inconclusive research on whether and how macroeconomic factors have influenced the cycles that have received the most analytical attention – those of the United States – and it will be seen how difficult it has been to come to grips with the determinants of the aggregate level of acquisition activity. (Happily, analysing the *effects* of acquisitions, at least some of them, is – as the present study testifies – a less forbidding task.) This makes it all the more important to avoid premature speculation about the current cycle, quite apart from the fact that it has not yet run its course and a certain minimum time must elapse after the end of any cycle before it can be analysed. Another reason for caution arises from the prevalence of a feature of this cycle that was much less characteristic of its predecessors, namely, the "leveraged buyout" (LBO) – whereby the acquisition is financed almost entirely by debt – and the "management buyout" (MBO), whereby managers acquire a controlling interest in their own firms, also almost entirely by means of debt financing. It remains to be seen whether this makes a difference and, if so, what it is.

The foregoing caveats notwithstanding, there is no doubt that the wider economic environment in which the current cycle has been unfolding has been undergoing far-reaching change, probably at a faster rate than has previously been experienced. International trade barriers are coming down between continental trading partners such as the members of the European Common Market, and the United States and Canada, as various agreements to that end are implemented. New and powerful trading blocs, such as the one comprising the Pacific Rim countries, are emerging, while some existing blocs, like COMECON, have begun to disintegrate. The emerging blocs threaten the hegemony of Western countries in many of their traditional areas of dominance, and although the disintegrating ones present scarcely envisaged opportunities, the fluidity of the surrounding political environment – to say nothing of the economic environment – may for some time daunt all but the most intrepid entrepreneurial spirits.

The rate of technological change has also been rapid and profoundly unsettling. In its numerous manifestations, computer-based information processing technology – to mention only one dramatic example – is transforming what happens on the factory floor. At the administrative level, record-keeping is increasingly the work of an instant, as is the transfer across continents of billions of dollars. So furious is this rate of development (and its concomitant, the rate of obsolescence), and so enormous are the associated technical and financial risks, that firms in different countries, including long-standing rivals, have begun to join forces, with the financial support of their governments. In technological consortia and other forms of "strategic partnering" they jointly undertake costly, high-risk R&D projects and share their fruits.

At the organizational level, traditional forms of interfirm cooperation, such as joint ventures involving international rivals, have become increasingly important, both in terms of the number of industries and countries, and of the volume of resources. Here, too, the same driving forces, higher stakes, and higher risks prevail.

The Takeover as a Resource-Allocating Device: Some Opposing Views

With growing frequency and urgency (at least in the industrialized West), voices are being raised saying that the unfolding global economic environment – into which every country must quickly integrate or risk falling by the wayside – poses challenges that conventional ideas and institutions are ill-equipped to meet. A leading target on the ideological front is the notion that for generations has underpinned competition policy in Canada and the United States, namely, that firms best serve society when they compete in markets composed of many firms. Institutionally, the target is the independent, single-industry corporation.

This last is not substantively a recent development. Since the 1950s, and especially in the wake of the Chandler's seminal work [1962], it has been argued that the traditional firm that produces a single product (or, at most, a few essentially similar versions of a single product) was limited in how far it could efficiently grow before being confronted with a stark choice: stop growing and forfeit market share, or transform structurally. Any attempt on the firm's part to ignore the issue and carry on business as usual would, before long, result in organizational sclerosis and declining market share. The rationale for this diagnosis and its remedy, the diversified "*M*-form firm," is outlined in Chapter 3. Among the recommended actions is the acquisition of other firms, either in the early stages of the transformation, or in the later. It is mainly to be undertaken for the purpose of risk reduction, and adds the category of diversification reason to the well-established "horizontal" and "vertical" categories of acquisitions.

Another group of arguments see the takeover as either positive or negative, but from a common point of departure. This is the separation of administrative control (represented by managers) from ownership (represented by shareholders) that is a major distinguishing characteristic of the corporation, especially the large corporation, as an organizational form. It was noted as far back as Adam Smith, and receives (relatively) modern recognition in Berle and Means [1932]. From the one point of view this separation is seen as being inherently problematic, because it enables managers to feather their own nests in a variety of ways, including acquiring other firms, to the detriment of not only shareholders' interests but also – due to the accompanying inefficiencies – of society's. The fact that the shares of most large corporations are widely held makes the problem effectively intractable, given the practical difficulties that dispersed shareholders must overcome when trying to club together to protect their interests.

While these theorists diagnose an inherent and effectively insoluble problem that can undermine the utility of the corporation as an organizational form, representatives of the positive approach, such as Manne [1965], take a much more sanguine view of the separation of administrative control from ownership. They point to the legal reality that holding corporate shares is holding transferable property rights. Shareholders can thus sell their shares to competing, alternative management teams whenever the incumbent team fails to give satisfaction. In effect, stock markets provide shareholders with access to the "market for corporate control," thereby endowing them with a potentially powerful mechanism for disciplining errant or otherwise inadequate managers. According to this reasoning, it is precisely because managers have been acutely aware of this disciplinary potentiality that they have tended historically to keep their opportunistic behaviour within bounds, and thus preserve – in addition to their jobs and perks – the corporation as a viable organizational form.

Seen in this light, the takeover is a beneficial phenomenon. Although its beneficial character may be weakened, it is not vitiated by the possibility that managers may themselves resort to it as an empire-building activity which is less in the shareholders' interests than in their own. In fact, according to this view, so beneficial to society is the takeover that, however threatening it may be to vested interests, the current, unprecedented volume of takeover activity – especially LBOs and MBOs – should be welcomed and encouraged. Writing with respect to the current wave of American takeovers, Jensen [1989, p. 62], a leading apostle of this school of thought, says:

> By resolving the central weakness of the ... corporation – the conflict between owners and managers over the control and use of corporate resources – these new organizations are making remarkable gains in operating efficiency, employee productivity, and shareholder value. Over the long term, they will enhance U.S. economic performance relative to our most formidable international competitor, Japan ....

This glowing assessment is rejected in its entirety by other American analysts, such as Adams and Brock [1988, p. 372, emphasis in original].

> The current merger mania is clearly out of control. Billion dollar megacorporations are roaming the Darwinian jungle making helter-skelter acquisitions or merging with one another. Generally these consolidations are unproductive at best and counterproductive at worst. They seldom promote efficiency or enhance international competitiveness or stimulate technological breakthroughs. They do not result in the creation of *real* values, the building of *new* factories, the development of *new* products or processes, or the employment of *new* workers ....

The Relevance of Previous Experience

The unequivocal terms in which these opposing assessments of the current takeover cycle are couched should not be allowed to obscure the fact that they both rest on evidence garnered mainly, if not entirely, from earlier cycles. Not only was this unavoidable, because insufficient time has elapsed to include the more recent cycles, but there is probably nothing wrong with it. One of the interesting features of the evidence on the profitability of acquisitions presented in Chapter 4 is the consistency of the findings of different studies by the same methodological school, which were carried out at different times, on sets of acquisitions that occurred during different intervals. Hence, unless the contemporary LBOs and MBOs make a major difference, we feel reasonably confident that the results of our own analysis of the performance of a set of Canadian takeovers that occurred between 1963 and 1983 accurately foreshadow the results of future analysis of today's merger wave. At least in this area, the past seems to prefigure the future.

Alternative Consummations of Corporate Marriages

Although the question with which this study is primarily concerned – whether acquired firms tend to operate more profitably after acquisition than before acquisition – is straightforward enough, answering it can be a rather complex exercise. There are several reasons for this complexity. Some have to do with defining and measuring profitability; these are discussed in Chapters 4 and 5. Others are attributable to the different ways one firm can organizationally implement its union with another, of which there are four: 1) after firm A acquires firm B, their respective operations could be combined within firm A, and firm B disappears; 2) firm A could disappear, while firm B remains; 3) both firms could disappear and a new firm, firm C, emerges; and 4) both firms could continue to operate as separately identifiable entities. To the analyst seeking to track the post-acquisition performance of the acquired firm's assets, types 1 to 3 represent variants of the same situation, but type 4, which is the type of acquisition examined in this study, is distinct. In dealing with each of the first three types, the usual procedure is to integrate the separate, preacquisition performances of both firms on the basis of weights that reflect their relative size. That produces a measure which is comparable to the post-acquisition performance measure of the new, combined entity. This is unnecessary in the case of type 4, since the acquired firm's performance is distinct throughout. This makes it easier for the analyst to track profitability, and perhaps, on the basis of two types of data instead of only one.

Two Measurements of Profitability

Every corporation produces a track record that is summarized, at least annually, in its income statement and balance sheet, but only corporations whose shares are publicly traded (in stock markets) also generate the additional track record of a steady stream of share prices. For any given interval, the two track records of, say, shareholders' rates of return are unlikely to be parallel. This is not only because the track records are couched in quite different terms, but also because financial statements tell a story that is intrinsically retrospective, while stock-market share prices reflect collective forecasts of what the future has in store. *Ex ante* and speculative though they are, stock-market share prices nevertheless represent realizable values, which is something that decidedly cannot be said of shares' book values, *ex post facto* though they are.

What is involved here goes beyond looking at the same process through different lenses. It much more closely resembles looking at two different – albeit not unrelated – processes through different lenses. It is therefore to be expected that two observers, each looking at the profit performance of the same publicly traded firm over the same interval (say a year), but through only one of these lenses, will see a different story. It would be reasonable to expect that if these same observers continued to follow events through different lenses over a much longer period of time, the *dénouements* of the two stories would converge. This, in itself, says nothing about the stories' respective ebbs and flows, which could easily be highly divergent, in direction and magnitude. This is no minor consideration, for as will be seen in due course, these fluctuations are themselves important elements in the assessment of profitability performance.

Accordingly, while it would not be incorrect to say that these two lenses provide alternative ways of viewing the same phenomenon – the rate of return to shareholders – it would be better to regard them as complements rather than substitutes. The accounting track record is a retrospective one that reveals how things actually turned out. The stock-market track record, even when looked at retrospectively, is a running list of the numerous, constantly revised forecasts by the market of how things would turn out in the future. To be sure, every specific forecast was made with an awareness of how things had previously turned out, but that awareness operated alongside many other reckonings and calculations, and the weight it received in any forecast is itself a variable. It is also worth repeating that forward-looking and speculative though they are, stock-market share prices represent realizable values, while the book values of shares, historically derived though they are, do not. Still, for the great number of corporations whose shares have never been publicly traded, there is no way of studying their profitability other than in accounting terms, warts and all. (There also exist other rate-of-return measures, one of which is presented in Chapter 5, that can only be derived from accounting data, whether or not the firm's shares are publicly traded.)

Clearly there is no ideal way to compare the pre- and post-acquisition profit performances of acquired firms. There is simply too much variety in the takeover phenomenon, both in how it is consummated and how the acquired firm's subsequent performance is tracked. This has greatly contributed to the confusion that characterizes so much of the debate about takeovers, both with respect to earlier waves and, most emphatically, to the current one. It can be shown, for example, that the differences among these diametrically opposed assessments of the current wave are rooted in the fact that they use different data.

In order to shed as much light as possible on the profitability effects of acquisitions, it would obviously be desirable to examine them, if possible, on the basis of both types of data simultaneously. The new Canadian evidence on takeover profitability gathered for this study and reported in Chapter 5 is one of the rare cases where both accounting and stock-market data are used with respect to the same sample of acquired firms. The only acquired firms capable of generating the necessary data are those publicly traded firms that remain publicly traded after at least a controlling interest in their share changes hands. The sample for this study consists of publicly traded Canadian corporations that were partially acquired between 1963 and 1983. The latter year was chosen to allow at least five post-acquisition years to elapse in each case. The comparison between the firms' pre- and post-acquisition performance is the analytical heart of this study.

Partial Acquisitions and Why They Occur

By definition, a consequence of the acquisition by one firm of a control block consisting of less than 100 per cent of the outstanding, publicly traded shares of another is the continued trading of those shares on the stock market. A partial acquisition enables the takeover to be consummated with a smaller outlay than would otherwise be necessary, and it has the further advantage of giving the acquiring firm access to the stock market in a way that does not risk diluting the position of its own controlling shareholders.

Although another feature – the continued existence of the acquired firm as a separate, identifiably entity – can be as characteristic of the total acquisition as it is of the partial acquisition, in the case of the former, third parties might be less inclined to view the firm as an autonomous entity. This could be a significant consideration if the firm possesses substantial goodwill, due to the fine reputation it previously built up. The acquiring firm would be loath to risk the loss of this asset, the value of which probably entered into the acquisition price.

It is in acquisitions where the economies that could be realized by the physical integration of the operations of both the acquiring and the acquired firm do not outweigh these advantages, that the partial acquisition finds its raison d'être. Since there is no reason to believe that this raison d'être renders the partial acquisition less representative of the genre of acquisition than any of the other types of acquisition – as far as profitability performance is concerned – the performance of these partially acquired firms may be analysed in order to illuminate that of the genre.

This study consists of six chapters. Chapter 2 provides background information on aggregate levels of acquisition activity in Canada and the United States while data on acquisition trends in the United Kingdom are presented in Appendix A. The inherent, strongly cyclical nature of acquisitions is conveyed, together with evidence on the impact of certain macroeconomic factors. Chapter 3 discusses why acquisitions occur – why a firm might rationally choose to expand its operations by acquiring another firm, as opposed to buying the desired assets directly from their respective producers. Chapter 4 is a summary of the extensive literature on the profitability of acquisitions that has emerged during the last three decades. The basic features of the two major methodological schools are described, and the literature categorized accordingly. Chapter 5 is devoted to an analysis of new evidence on the profitability performance of partially acquired, publicly traded Canadian corporations. Because the policy implications of corporate takeovers cannot be derived without investigating a number of other issues, several of these are outlined in Chapter 6.

2 Takeover Trends in North America

The first though not the most important thing to be made clear in a brief review of historical evidence on aggregate-acquisition activity is the fact that the quality of the data leaves much to be desired, even with respect to the United States, the country for which the best data exist. For other countries, including Canada, the data are very incomplete, and when they do exist they are usually difficult to compare across countries. Not surprisingly, most of the analytical work that has been done refers to the United States. The second, more important feature to be emphasized is the absence of consensus among analysts – even within broad schools of thought – such as exists with respect to the profitability of acquisitions. We now look briefly at some American and Canadian data and at some analyses of American trends. It is American evidence that seems most likely to be relevant to Canadian experience.

United States

In the words of Golbe and White [1988*a*, p. 26]:

> To obtain a suitable historical perspective on the current wave of mergers and acquisitions, one needs a long, comprehensive, consistent set of data on mergers and their likely determinants. Unfortunately, no such data series on mergers exists, and we must compromise . . . .

One limitation of every available American series is that it has a size cutoff-point, so that acquisitions in which the value of the acquired assets is below a certain amount are excluded. From an analytical standpoint, this restriction would not matter if small-acquisition trends and large-acquisition trends were highly correlated but, since small acquisitions tend to go unrecorded, that correlation is unknown. Another possible distortion results from chronic inflation which, because the lower limits tend to remain unchanged for years on end, causes later acquisitions of a certain real size to be included when earlier acquisitions of the same real size were not. Inflation also biases upwards the aggregate value of the included acquisitions.

In Chart 2-1 is reproduced Golbe and White's picture of the volume of American acquisition activity since the turn of the century that emerges when four different time series are shown together. The most striking feature is the highly cyclical character of the activity. Lack of data makes it impossible to assemble a corresponding picture of the monetary value of these acquisitions, but in Chart 2-2 the Federal Trade Commission series, which goes back to 1948, is superimposed on the total-activity series since 1948. Interestingly, the two series track each other quite well.

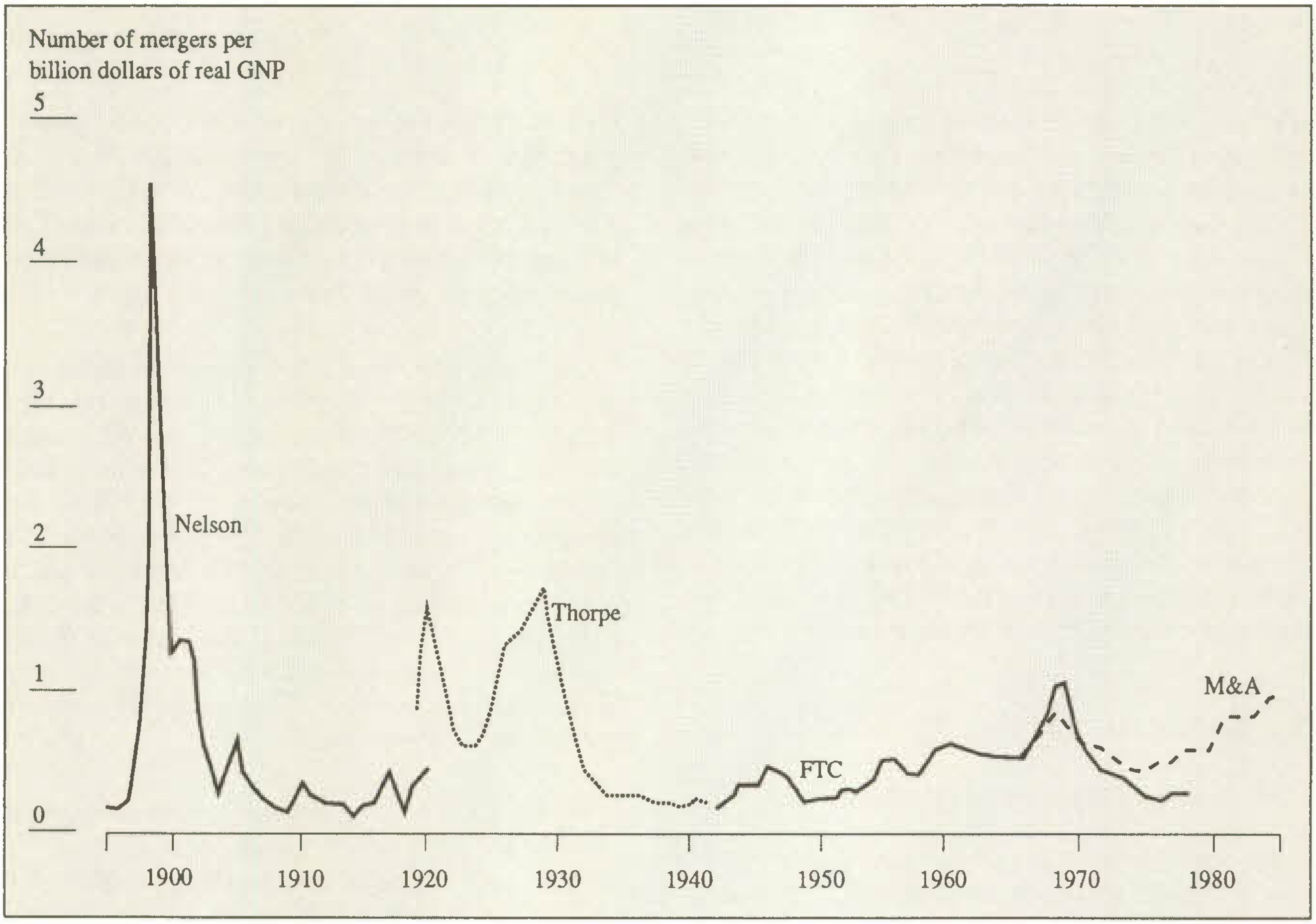
Compared with the research on the profitability of takeovers, very little analysis has been done on the factors influencing either the level of aggregate-acquisition activity or its value. Only a handful of studies have so far appeared and the diversity of opinion – in terms of both methodology and findings – is such that until a good deal more work is done, it would be imprudent to hazard more than a tentative guess. So limited and uncertain is current knowledge that, as Brealey and Myers [1984] suggest, the absence of a coherent conceptual explanation for the occurrence and magnitude of takeover waves is one of the major problems in contemporary corporate finance.

According to many largely ad hoc hypotheses, aggregate takeover activity is positively related to measures of total economic activity, such as GNP, and to the overall level of securities prices. As to its relationship with that important macroeconomic variable, the interest rate, the direction is sometimes found to be positive and sometimes negative.

In a recent analysis of the various time series of takeover activity that they spliced together, Golbe and White [1988*b*] attempt to go beyond ad hoc hypothesizing by formulating a "bargain" theory of acquisitions. This theory and the discussion it has so far stimulated is worth examining, not only in its own right, but also for what it implies about the state of knowledge in this area. In this theory, the key variable is Tobin's q, the ratio of the market value of assets to their replacement cost. A "bargain" is deemed to exist whenever the market price of a firm's shares is less than the replacement cost of its assets ($q < 1$); the greater the inequality, the greater the likelihood that the firm will be acquired. This implies that, for a given level of desired-aggregate investment, the lower the value of the economy's q, the higher the level of takeover activity. Golbe and White do not consider their exclusive emphasis on the demand side of the takeover transaction to be appropriate in all circumstances. For example, when the assets in question are highly

Chart 2-1

Annual Number of United States Mergers and Acquisitions per Billion Dollars of Real GNP (in 1982 Dollars): Nelson, Thorpe, FTC "Broad," and M&A "Domestic" Series, 1895-1985



SOURCE Golbe and White [1988*a*].

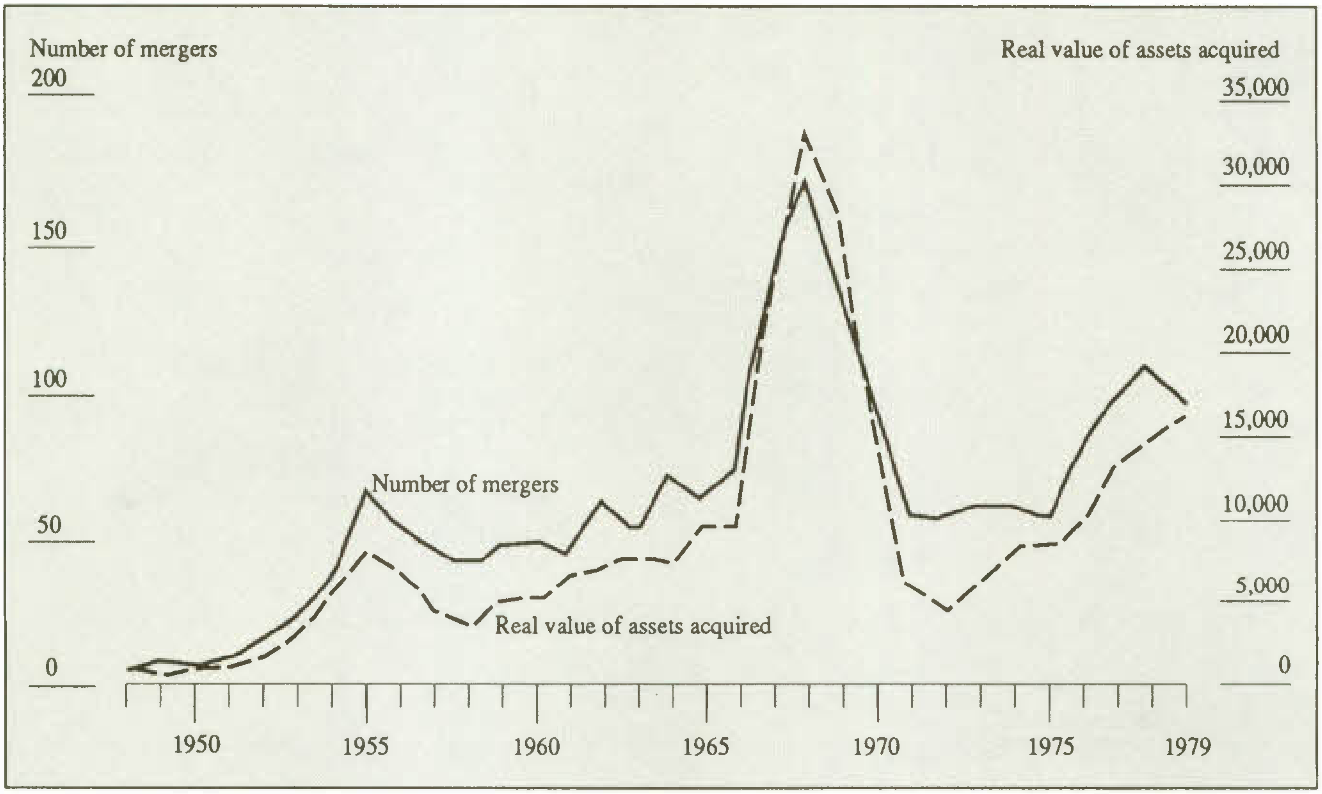
tangible, like real estate, the opposite situation – in which market price exceeds replacement cost – is likely to prompt owners to sell. Hence, the total volume of acquisition activity is unlikely to be correlated with q.

When, however, the assets in question are the shares of publicly traded firms, the two variables are in fact correlated; although when $q > 1$, prospective sellers may not offer enough shares below market price to bring about a transfer of control, despite the fact that they have formed a less optimistic view of the firm's prospects than has the market. According to Golbe and White, this makes it legitimate to disregard the supply side of the picture and postulate that q has a negative relationship with total acquisitions of traded firms. Recognizing that their hypothesis necessarily also implies, *ceteris paribus*, a negative relationship between securities prices and the level of acquisition activity, they acknowledge a conflict with the majority of earlier studies that postulate, and find empirical support for, a positive relationship. Nonetheless, they insist that theirs is the conceptually superior formulation, a position that leaves them at a loss after they test it in different forms (along with other, less distinctive hypotheses) and consistently find a statistically significant, *positive* relationship. They pronounce themselves puzzled, and conclude with yet another declaration that the task of developing an adequate understanding of the economic forces underlying takeover waves remains unaccomplished.

Commenting on Golbe and White's analysis, Salop [1988] argues that their bargain-theory model is incompletely specified, and offers a number of suggestions based on a model of asset exchanges with imperfect information in the possession of the parties. More fundamentally, he also

Chart 2-2

Annual Number of United States Mergers and Acquisitions, and Real Value of Assets Acquired: FTC "Large Firm" Series for Manufacturing and Mining, in Millions of 1982 Dollars, 1948-79



SOURCE Golbe and White [1988*a*].

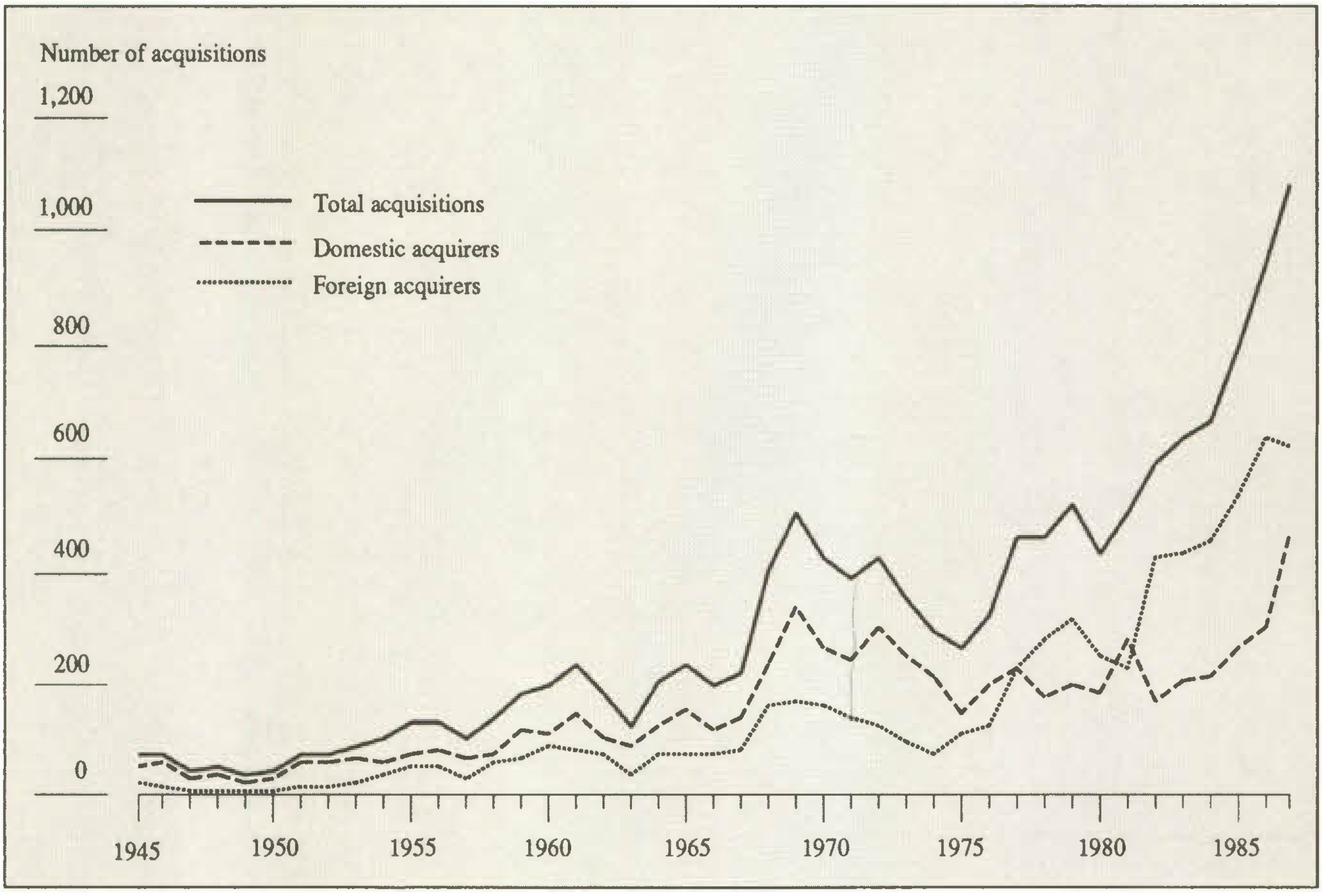
maintains that the analysis of the determinants of the level of acquisition activity requires a more comprehensive model than has yet appeared, one that simultaneously specifies the determinants of the level of stock-market activity and those of the level of takeover activity.

Taggart [1988] reiterates the lack of a coherent macroeconomic model of acquisition levels and trends, and suggests that the discomfiture experienced by Golbe and White from the unexpectedly positive sign of their q-variable is due to a reliance on aggregate q. Unlike firm-specific q, which behaves as expected in Hasbrouck [1985] and Bartley and Boardman [1986], aggregate q could have an ambiguous effect precisely when $q > 1$, since certain overrated firms may attract acquirers offering their own shares as part of the purchase price. More generally, Taggart believes that the very limited success of attempts to explain the level of acquisition activity in terms of macroeconomic variables – and, implicitly, to develop a macroeconomic analytical framework for takeovers – may have a deeper and less remediable cause, namely, that the volume of activity really depends, not on aggregate macroeconomic factors, but on disaggregated factors that refer to specific industries or sectors. This view is implicitly endorsed by Jacquemin et al. [1989], who report, *inter alia*, on the current, still ongoing takeover wave in a number of Western European countries, the United States, and Japan.

This is a rather awkward state of affairs. Attempts to identify the macroeconomic forces that govern the recurring phenomenon of the takeover cycle have so far accomplished little, as have the few, more ambitious attempts to go beyond ad hoc hypothesizing about the role of this or that macroeconomic variable. The proposed analytical remedies tend to be mutually exclusive. One remedy prescribes the development of a very comprehensive apparatus that incorporates the workings of securities, as well as of real, market systems – a very tall order indeed [see Salop, 1988]. The other sets its sights much lower, focusing on particular industries or sectors deemed to be undergoing, or about to undergo, restructuring [see Taggart, 1988]. Although the first remedy does not necessarily exclude them from consideration, the

Chart 2-3

Domestic and Foreign Acquisitions in Canada, 1945-87



SOURCE Consumer and Corporate Affairs Canada.

second appears to assign decisive roles to the microeconomic motives for firms to expand by acquiring other firms.

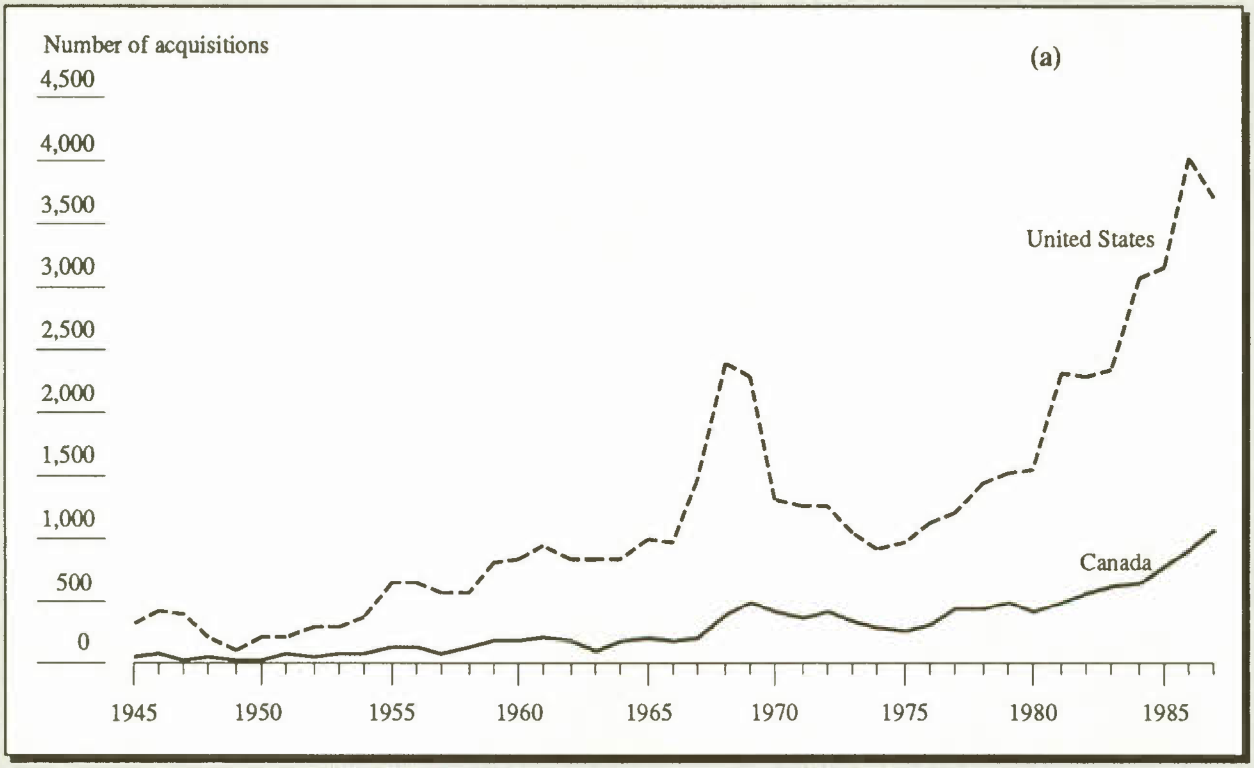
Canada

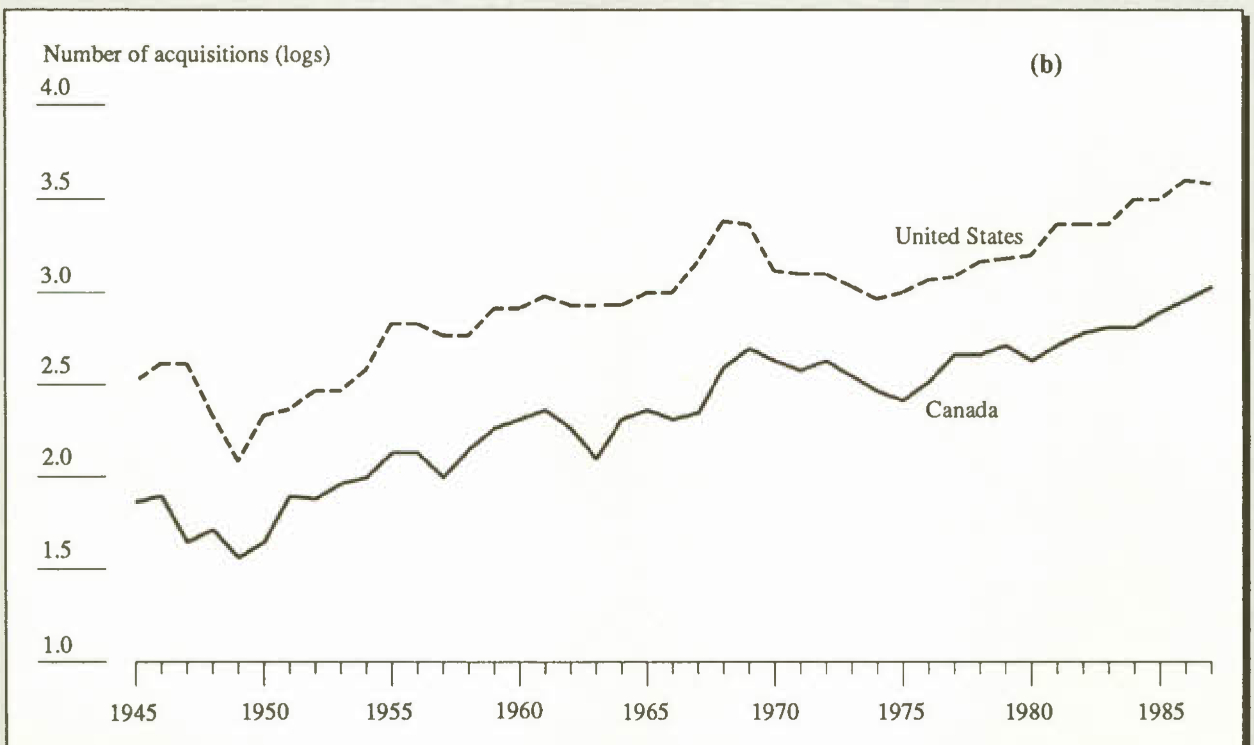
Canadian acquisition cycles have not received, at least during recent years, analytical scrutiny that is analogous to this research on American cycles. It must therefore suffice to report, in Charts 2-3, 2-4*a*, and 2-4*b*, the levels – in terms of numbers of takeovers – of Canadian and American activity since the late 1940s. Unfortunately, unlike the American practice, no Canadian institution, governmental or private, has mandated or otherwise undertaken the gathering of the corresponding financial data. Hence, it has not been possible to develop a time series of the values of acquired assets.

Two features of Canadian cycles are particularly noteworthy. First, their peaks and troughs during the past 30 years have coincided, by and large, with those of American cycles. Second, total acquisitions of Canadian firms by foreign (mostly American) firms – a phenomenon that has long been important – have latterly exceeded by a considerable margin the corresponding acquisitions by Canadian firms.

Chart 2-4

Acquisition Activity in Canada and the United States, 1945-87





SOURCE Investment Canada.

3 The Many-Sided Corporate Takeover

In this chapter we provide further background by outlining various reasons why corporate takeovers occur. Acquiring another firm is not the only way in which a firm can expand its operations, and the advantages of this type of expansion are not immediately apparent. After deciding to take the acquisition route, the acquiring firm must make further choices. It can either proceed directly, as it were, by buying the assets of the target firm, or indirectly (which is more pertinent here) by buying a controlling proportion of its shares. All in all, the corporate takeover is a multifaceted activity that is prompted by a wide variety of often overlapping reasons. The purpose of this study is to assess how successful it is as a collective rather than an individual phenomenon, in attaining the common objective of increasing the profitability of the acquired assets.

The Paradox of the Acquisition

There are three types of acquisition (and each type can be either "friendly" or "hostile"): horizontal, vertical, and conglomerate.[1] In a horizontal acquisition, both the acquiring and the acquired firms are in the same industry; in a vertical acquisition, the acquired firm produces an input to the operations of the acquiring firm; and in a conglomerate acquisition, the products of the firms are not directly related. An immediate question that applies to all three is: When is it advantageous for one firm intent upon expansion to acquire the assets and facilities of another, rather than to purchase similar assets directly from their producers and develop similar facilities from scratch? More precisely, what could cause the total price of these assets and facilities to be less when they are embedded in the structure of another firm than when they are purchased or developed directly?

A similar question applies to the acquired firm. Which factors could make it more advantageous to the controlling shareholders of a firm to sell their shares rather than to continue to operate it? Why, in other words, should their firm be worth more to others than to themselves? It is the simultaneous existence of these situations, reflecting these discrepant valuations of the acquired firm, that allows the acquisition to be consummated.

These questions are hardly new, and economists have proposed a number of answers, many of them not mutually exclusive. Steiner [1975, pp. 30-31], for example, lists 13 motives that could make a takeover attractive to the shareholders of either or both the acquiring and the target firm:

1 A desire to limit competition or achieve monopoly profits.

2 A desire to utilize unutilized market power.

3 A response to shrinking opportunities for growth and/or profit in one's own industry due to shrinking demand or excessive competition.

4 A desire to diversify to reduce the risks of business.

5 A desire to achieve a large enough size to realize an economical scale of production and/or distribution.

6 A desire to overcome critical lacks in one's own company by acquiring the necessary complementary resources, patents, or factors of production.

7 A desire to achieve sufficient size to have efficient access to capital markets or inexpensive advertising.

8 A desire to utilize more fully particular resources or personnel controlled by the firm, with particular applicability to managerial skills.

9 A desire to displace an existing management.

10 A desire to utilize tax loopholes not available without merging.

11 A desire to reap the promotional or speculative gains attendant upon new security issues, or changed price-earnings ratios.

12 A desire of managers to create an image of themselves as aggressive managers who recognize a good thing when they see it.

13 A desire of managers to manage an ever-growing set of subordinates.

Steiner acknowledges that this list is incomplete, due to his implicit assumption that the interests of the managers and shareholders of both firms are identical. This is a very large assumption and one that is not widely accepted, as we already know. Indeed, many theorists base their analysis of takeovers entirely upon the opposite premise: that there exists an inherently dichotomous relationship between the parties. We will have a good deal to say about this most important issue. For the moment, however, these motives constitute a useful point of departure and may be grouped into three categories.

1 The realization of external factors called "synergies." These factors may be real or pecuniary, and they serve to make the value of the new, merged firm greater than the sum of the separate values of both firms. When real, they include the possibility of realizing economies of scale or scope, or of exploiting monopoly power. When pecuniary, they involve financial advantages accruing outside the firm's productive activities.

2 The availability of "insider" benefits to shareholders of the target firm. These benefits result from positive characteristics of the firm that are not adequately reflected in the market price of its shares.

3 The availability of "insider" benefits to shareholders of the acquiring firm. These are analogous characteristics of the acquiring firm, and they can be a significant factor in the transaction when that firm's shares constitute a substantial portion of the acquisition price.

Determinants of Acquisitions

Real Determinants

One of the classic hypotheses about corporate takeovers states that the objective is to increase the acquiring firm's profits by increasing its market power. This could be accomplished either by decreasing the elasticity of demand for the firm's product or by erecting barriers to the entry of new competitors into its industry. The most obvious example of the first situation – and the one that has traditionally aroused the greatest public concern – is the horizontal takeover that increases the acquiring firm's market share, thus enabling it to more easily engage in collusive price-setting with its fewer competitors. A variant of this example is the case where an entrant into an industry overcomes entry barriers by acquiring an incumbent. If the acquisition enables the acquiring firm to operate at lower cost, it could then deter other potential entrants with its increased ability to wage a price war against them.

Although the mechanisms differ in each case, the other types of takeover also have some potential to restrict competition. A vertical acquisition could enable a large producer to provide a secure market to a supplier, thereby endowing itself with a competitive advantage over rivals lacking downstream affiliates. A conglomerate acquisition that links two firms that are actual or potential customers of each other could prompt a reciprocal arrangement between them that places rivals of either at a disadvantage. Both types of acquisition could also deter potential new entrants from attempting to enter the industries in question.

All three types of acquisition could increase efficiency. Production-cost savings could be realized by a horizontal merger through economies of scale not otherwise attainable or, by a vertical merger, through greater integration of inputs and logistics. Either could also result in lower transportation costs, and all three could conceivably achieve overhead-cost savings as a result of larger, and therefore more efficient, R&D, marketing, legal, audit and finance departments.

One frequently advanced explanation of acquisitions [see Caves, 1988] that embodies many of their synergistic rationales, rests on the notion that certain assets are either tangible and lumpy, or intangible and capable of being put to several simultaneous uses. A firm holding such assets under conditions that prevent their full utilization might increase its overall efficiency by adding another activity to its existing operations. The opportunity cost of adding that activity could be less than it would be for a new firm undertaking it *de novo*.

There is another efficiency that is potentially attainable through a conglomerate acquisition. It results from a superior decision-making capability, and cannot readily be assigned to any of the above cost-reduction categories. A brief description of how this efficiency gain could occur is warranted because of the substantial and growing importance of the conglomerate firm to the Canadian economy.

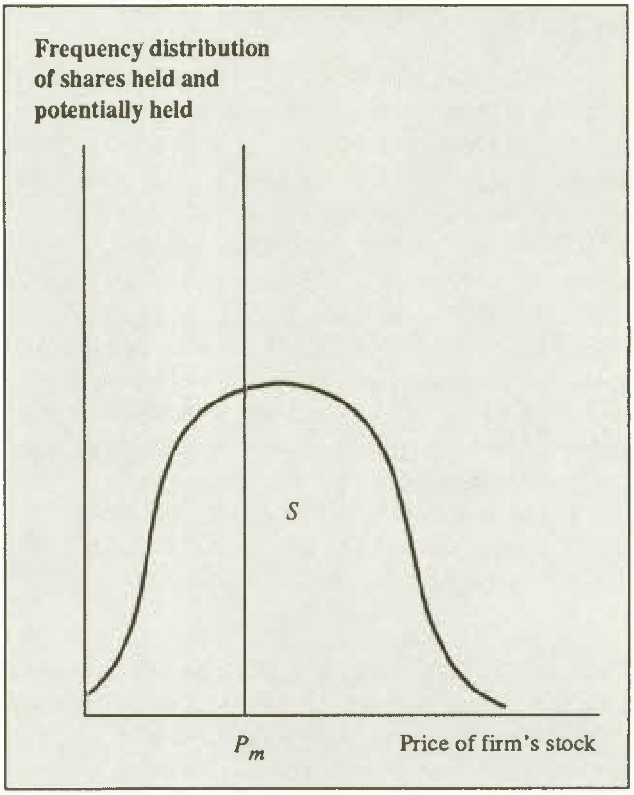
As indicated, there allegedly is a limit to the ability of single-industry firms to grow and remain efficient. After that limit has been reached, a variety of ills inevitably set in and soon become chronic. These are mostly attributable to administrative mechanisms and structures that have become overburdened. In some ways the firm's decision making has become too decentralized, in others not decentralized enough. Although capital markets can, and do, punish such firms for their deteriorated performance by discounting their shares, this is second-best medicine because it affects the healthy as well as the unhealthy parts of what is now a large and complex organism. The fact that the medicine is usually only administered at specific times (such as after the firm's periodic returns have been announced) further attenuates its efficacy.

To improve its performance the firm must transform itself. It must cease being a unidivisional "U-form" firm and become a multidivisional "M-form" firm [Williamson, 1970] in which quotidian and tactical decisions are now made by managers responsible for specific divisions, rather than by higher-level managers. This enables the higher-level managers to address strategic issues in a less distracted fashion than they previously could, which produces sounder decision making. Once transformed, it would be logical for the firm to further reduce its overall risk-bearing by diversifying into fields that, though not directly related to its traditional ones, are subject to different economic cycles. Thereby, the firm increasingly constitutes an internal capital market, in which its top managers allocate resources on the basis of a more rapid and nuanced information system than the one that serves external capital markets, and this further improves overall performance.

More generally, an acquisition could also be prompted by certain aspects of the income tax code. Whether or not these factors are real in terms of the economy as a whole, they are real enough to individual firms. The tax rules most likely to impinge on the takeover decision pertain to loss and interest deductibility, and to capital-cost and depletion allowances for depreciable and depletable assets. They all have the potential for rendering it less costly for a firm to expand its operations by buying the desired assets and facilities in the guise of another firm's shares.

Chart 3-1

Non-Uniform Expectations About a Firm



SOURCE Mueller [1980].

Speculative Determinants

The precondition of a corporate takeover is the existence of discrepant valuations of the target firm in the minds of its current and prospective shareholders. That is what makes the acquisition a mutually, if not equally, attractive proposition. To formulate this precondition more rigorously, we begin by noting that an individual's valuation of a given firm's shares ultimately rests upon an estimate of the present value of its future earnings. This estimate reflects available objective information, but it is also importantly influenced by other, purely subjective factors that vary with the individual. Mueller [1980] summarizes the interaction between the expectations of those security holders who currently include a firm's shares in their portfolios and those that do not, in a fashion that allows us to discern circumstances in which takeovers could rationally occur.

Chart 3-1 depicts a frequency distribution of the shareholdings of the firm whereby, at share price P_m, all its issued stock – represented by the area to the right of P_m – will be held.

Even if expectations change, there is no basis for a takeover based on divergent expectations of the firm's future performance. As long as total shareholdings remain unchanged, any change in expectations will only change share price, which in turn will cause offsetting adjustments in shareholders' portfolios. These adjustments will normally take place at the margin and therefore will not involve the transfer of control blocks of stock.

Before proceeding, it is worth mentioning parenthetically that there is another perspective which also tends to preclude mergers. It derives from the notion that there exists a homogeneity of expectations among shareholders (a notion implicit in the so-called capital asset pricing model about which we will have a good deal to say later). Thus, at equilibrium, all shareholders hold portfolios that accurately reflect all pertinent, publicly available information and that could include shares of the firm in question, depending upon shareholders' respective utility functions. In other words, everyone either holds some of the firm's shares, among others, or is at the margin of indifference. In this environment, any change in expectations causes shareholders immediately to produce a share price that reflects the new information. Again, there is no rational reason for acquisitions to occur.

For an acquisition to be rational, expectations about the target firm's future performance must differ between holders and non-holders of its shares. Consider Charts 3-2 and 3-3.

The distributions represented by the solid lines reflect the respective expectations of shareholders and non-shareholders, and the equilibrium share price, P_m, is determined on the same basis as in Chart 3-1. (The small area under the intersection of the tail of the distributions, although produced by differing expectations, is inconsequential because the differences are assumed to amount to less than the transaction costs of trading the shares.) The existence of two different distributions is attributable to three possibilities: 1) that the information available to the firm's shareholders might be different from that available to non-shareholders; 2) that although both groups possess the same information, they might evaluate it differently, perhaps due to different risk-bearing propensities; and 3) that the shareholders are simply more optimistic (for whatever reason) about the firm's prospects than the non-shareholders.

Now assume that something happens to produce a fairly drastic change in the outlook of either group with respect to the firm's future earnings. According to Gort [1969], such a situation could develop when the general level of stock-market prices is increasing rapidly, and at the same time a large group of non-shareholders form a much more optimistic view of the firm's prospects than it previously held. This would cause a shift of their distribution, such as that depicted in Chart 3-2 by the broken line. Many non-shareholders now find themselves valuing the firm, not only at a higher level than they did before but, more importantly, at a higher level than many shareholders currently do. In other words, they could now buy the firm's shares at a lower price than they would be willing to pay, if necessary. By the same token, a different event could cause a large body of shareholders collectively to downgrade their expectations of the firm's future performance (see Chart 3-3), a reaction that would shift their distribution to the left. They now place a lower value on their own shares than does the market.

In summary, according to this "economic disturbance" theory, two conditions must exist for an acquisition to occur: first, the stock market as a whole must be in a state of flux, and second, the pre-existing asymmetry of expectations between shareholders and non-shareholders of the target firm must be supplanted by an appropriate new one. There could, however, also exist a quite different asymmetry of outlook, one that involves both the managers of the acquiring firm and its shareholders. Acquisitions, after all, are made by firms, not by private individuals, and the decisions governing the behaviour of firms, including takeovers, are made in the first instance by the managers, not the shareholders. Thus a takeover could also occur because there exists an asymmetry between the expectations of the acquiring firm's managers on the one hand, and those of both its own shareholders and the shareholders of the target firm on the other. (Whether this particular asymmetry implies a conflict of interest between the managers of the acquiring firm and its shareholders, or whether there is no real conflict but the managers have a better understanding of the shareholders' best interests than they themselves do, will be discussed in the next section.)

There is a further possibility that has long been recognized – that "outside promoters," who arrange and broker takeovers involving other parties, could under certain conditions play an important role. According to Markham [1955], for example, their activities contributed significantly to some of the early, strong merger waves in the United States, when bull markets held out to speculators the lure of large capital gains. Although it probably is still too early to tell, it is not inconceivable that the contemporary manifestation of these promoters have been contributing importantly to the unprecedented flood of acquisitions that is currently changing industrial structures across North America and Western Europe, especially where LBOs and MBOs are concerned.

Managerial Determinants

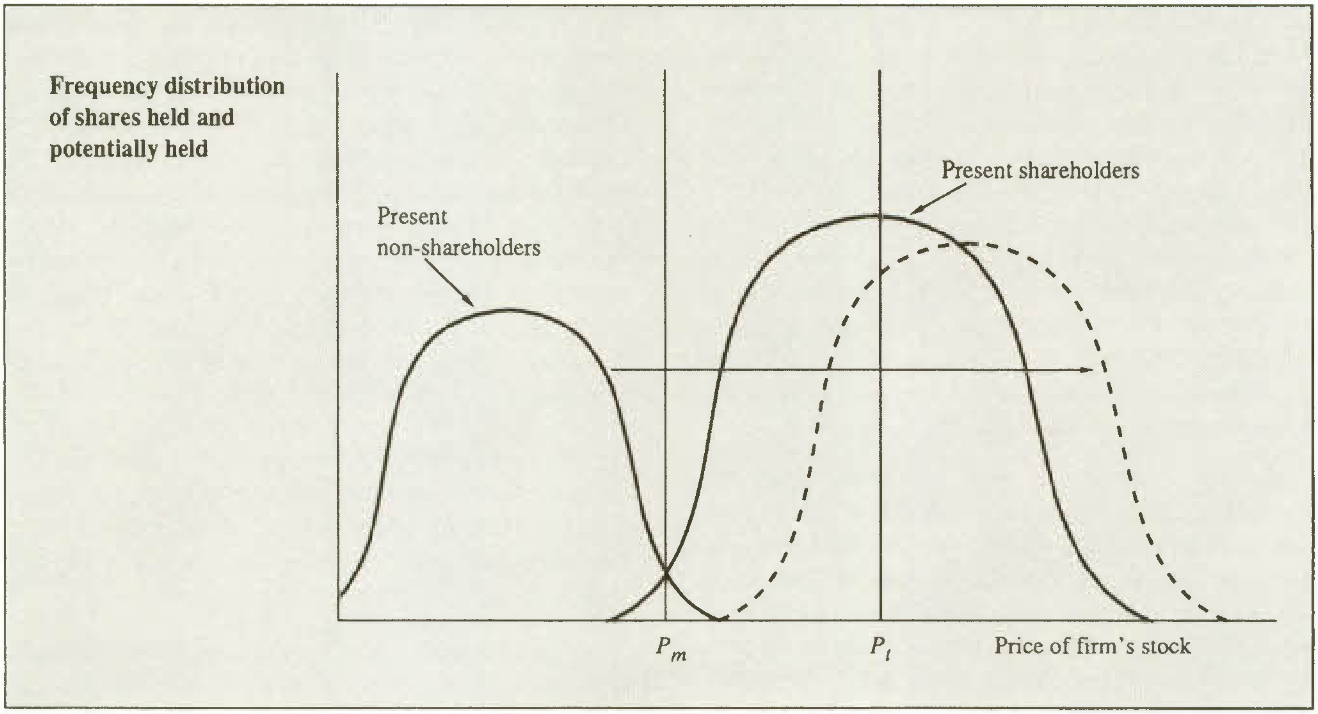
This question of the congruence of interests between managers and shareholders now comes into its own. In the tradition of the seminal work of Berle and Means, some theorists maintain the fact that managers of large, widely held corporations usually do not to any significant extent own shares in them, while those that do usually do not manage them, goes far to explain many important corporate actions, including takeovers. Put another way, the interests of managers and shareholders inevitably differ; therefore, decisions taken by managers may serve their own interests without necessarily serving – at least not to the same degree – those of shareholders. Shleifer and Vishny [1988, p. 7] put it neatly:

> Like the rest of us, corporate managers have many personal goals and ambitions, only one of which is to get rich. The way they try to run their companies reflects these personal goals. Shareholders, in contrast, deprived of the pleasures of running the company, only care about getting rich from the stock they own . . . .

This means that managers do not seek, as their only or even their primary goal, to maximize the present value of their firms' future earnings, which is the goal that shareholders would prefer them to pursue. Instead, managers tend to pursue some combination of several objectives simultaneously, though not necessarily with equal intensity. One

Chart 3-2

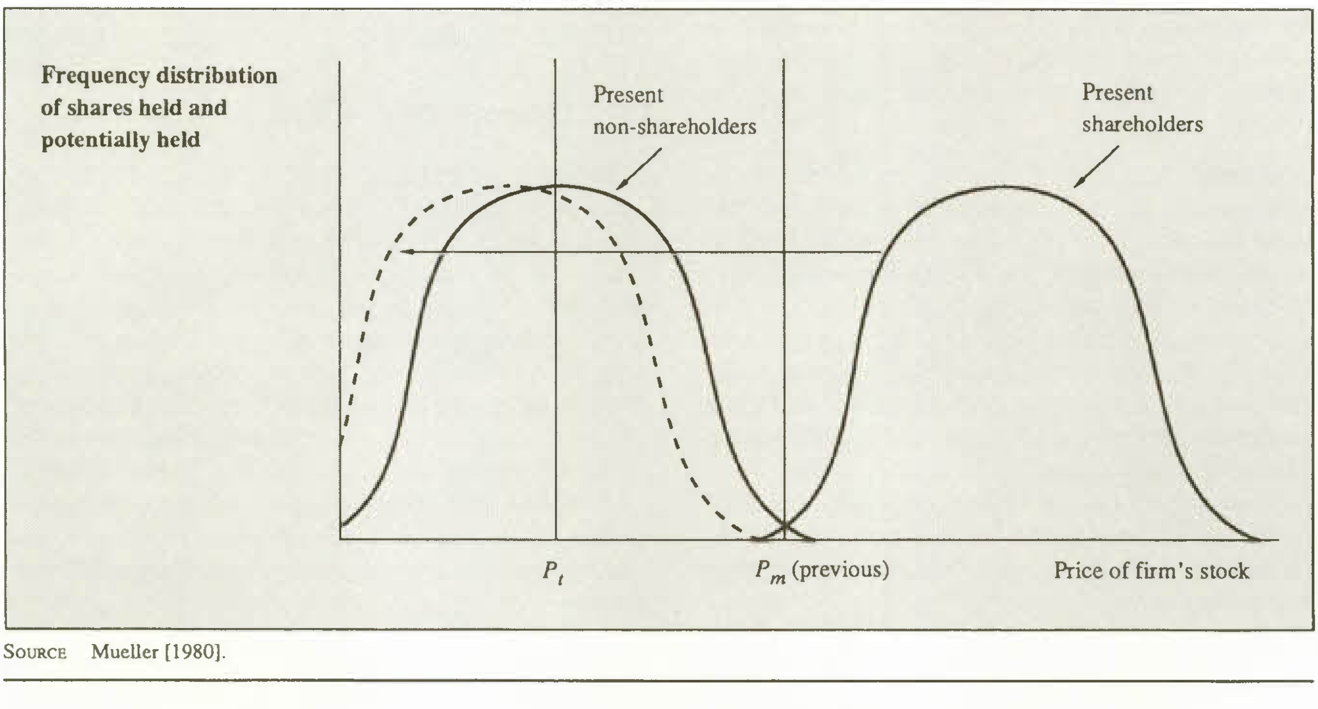
Optimistic Shift in Expectations by Non-Shareholders



SOURCE Mueller [1980].

Chart 3-3

Pessimistic Shift in Expectations by Shareholders



SOURCE Mueller [1980].

of these, of course, is profits, but others could include the overlapping goals of greater market share, size, visibility, and prestige for their firms, along with security of tenure and a tranquil life for themselves. The difficulty from the shareholders' perspective is that these other objectives are, at least potentially, in conflict with their own objective of maximized earnings. The fact that the contract of employment – be it formal or tacit – between a firm and its managers often tends (at least partially) to make their remuneration and perquisites a function of its market share, size, visibility, or prestige, only serves to sharpen the potential conflict of interest. Shleifer and Vishny argue that short of outright bribery (which has its own drawbacks), it is practically impossible to write an employment contract or appoint a board of directors that will adequately ensure that managers eschew non-value-maximizing behaviour.

Other theorists maintain, in defence of managers, that when managers include in their objective functions goals other than profit maximization, they are not necessarily merely yielding to opportunistic temptations. They could also be trying to protect and advance shareholders' interests. For as we have seen, and contrary to the neoclassical view that firms simply respond to the dictates of the market, what firms really do is enact what their managers decide. Managerial decisions, however, are subject to severe cognitive limitations. Because they can never possess all the relevant information, managers operate in an environment of so-called bounded rationality, and this forces them to grope – by trial and error – towards satisfactory, rather than perfect, outcomes. It is, in other words, the exigencies of their decision-making situations (along with the pursuit of narrow self-interest) that explains why managers strive to earn just enough profit to prevent shareholders from becoming restive or to provoke a hostile takeover. (There exists a large literature in this vein, largely inspired by Simon [1955].)

The interplay of all these factors gives the takeover an ambiguous character as a resource-allocating phenomenon. On the one hand, managers bent on making their firm as large and prominent as possible – even if it means foregoing some profits – could undertake acquisitions at which shareholders, had the decision been up to them, would have balked. On the other hand, managers who grossly violate their fiduciary obligations to shareholders by failing to earn a satisfactory rate of return run the risk of being replaced by new managers, in the wake of a takeover of their own firm by new controlling shareholders attracted by the now discounted market value of its shares. The tension between these tendencies will be discussed in more detail in Chapter 5.

Jensen [1988] adds to the already long list of factors capable of prompting takeovers with his "free cash flow" theory. It derives from the high agency costs imposed on firms by conflicts between managers and shareholders over the distribution of excess liquidity. According to this theory, when this liquidity, as well as the monitoring and management-compensation costs of forcing managers to disgorge it, are large enough, the opportunity arises for takeovers that ultimately produce more efficient allocations of the acquired firms' resources. Somewhat paradoxically – and notwithstanding a widely held view to the contrary – takeovers of this type that are heavily leveraged (financed by debt rather than equity) are held to be especially effective in forcing efficiency-enhancing restructurings. This is so because when the interest and principle payable on debt fall due, they cannot be deferred without potentially dire consequences, much more so than in the case of dividends that accrue to shareholders at the discretion of managers. Hence, debtor firms are motivated to retire this debt sooner rather than later by paying out excess cash flow or selling off parts of themselves.

There is yet another theory that has recently been advanced to explain why managers initiate takeovers. Impressed by voluminous evidence to the effect that, on average, the combined stock-market value of both the acquiring and the target firms remains largely unchanged after the takeover, Roll [1986] attributes this unprepossessing outcome to an overweening confidence on the part of managers of acquiring firms that they know the true worth of target firms better than anyone else, a confidence that tends to be impervious to experience. Thus they persistently overbid acquisition prices in their "hubris." This is another matter to which we will return in Chapter 5.

The Common Denominator

Although profitability is not, by any means, the only criterion by which the economic effects of takeovers should be evaluated, it is among the most important ones. As we have seen, the reasons why firms acquire other firms are many and varied, but they all come down the same "bottom line." Whether a takeover is prompted by cost-reducing motives or by monopolistic, price-increasing ones, it is but a means to the same end – a higher return from the acquired assets. Nor is a takeover that is largely inspired by managerial self-aggrandizement exempt from the obligation to yield a higher profit than the target firm's assets previously yielded. There are no other grounds upon which the project could be justified to the acquiring firm's shareholders and lenders.

4 Evidence on Profitability: Two Methodologies

Roll's analysis, though interesting in itself and having considerable potential relevance to Canadian experience, is but one of several interpretations of the accumulated data on the profitability of takeovers. A striking feature of the extensive literature in this area is the disparity in the methodologies. It is with this feature that our discussion begins.

The study of the profitability of takeovers is, depending upon which methodological school is involved, at once an activity with a long history and one of fairly recent vintage [Caves, 1988]. Although the profit measures applied by analysts belonging to the older industrial-organization school vary, they share a retrospective view. Typically, a specific interval (usually three to five years) is allowed to elapse after the acquisition, and the performance of either the target firm or the merged firms over that interval, relative to that of a control group, is compared with its corresponding performance over a similar preacquisition interval. The profit measures employed are mainly derived from accounting data, being book rates of return of one kind or another. Sometimes, however, stock-market data are used – usually instead of, rather than in addition to, accounting data – to compute rates of return to shareholders.

The other, much more recent approach is methodologically quite different. It was developed by financial-economics specialists and rests on one version or another of the capital asset pricing model. This model utilizes only stock-market data and postulates that the equilibrium expected return on a (traded) firm's stock is a function of certain variables. These are the return on a risk-free security, and the difference between that return and the expected return on a diversified market portfolio, subject to a risk factor (generally denoted by beta) that reflects the relative variability of the stock's performance and that of the market portfolio. The model is used counterfactually, to estimate the returns to shareholders that would have been earned in the absence of the acquisition "event." These are then compared with the actual returns earned after the stock market became aware that the event was in the works, and the difference is attributed to it.[1]

The Industrial-Organization Approach

American Evidence

Although the literature produced by the industrial-organization school goes back a long way, it is sufficient for our purposes to refer selectively only to the portion pertaining to the last 30 years or so. (The suitability of accounting data for addressing these and other issues is itself the subject of some controversy. See Long and Ravenscraft [1984], for example.) Happily, one of the most extensive exercises in this category is also one of the most recent. Ravenscraft and Scherer [1987] avail themselves of a rare opportunity to analyse firm-specific accounting data disaggregated by line of business. They find that the profitability of acquired assets in their sample deteriorated significantly after being acquired. This is consistent with the findings of the many comparable studies (based on firm-wide data) of American, British and Western European experience discussed below, in spite of the fact that these other studies vary considerably in terms of focus, measurements, intervals, and sample sizes. Occasionally the profit performance of acquired assets remains unchanged, but it rarely, if ever, improves.

In a representative American study, Hogarty [1970] examines a sample of 41 firms that made acquisitions during the period 1953-64 which resulted in at least a 20 per cent increase in their sales or assets, and computes two indices of the "functional" gain or loss resulting from each acquisition. One index reflects the change in combined profitability of the acquiring and target firms (relative to a control group) between 1964 and the year preceding the acquisition; the other, more distinctive index reflects the change in combined market share that occurred between those years. There are 19 cases of functional loss, 17 cases of functional gain, and 5 ambiguous outcomes. As regards the changes in combined market share, there are 24 cases of functional loss, 8 cases of functional gain, and 9 ambiguous outcomes. Hogarty [1970, p. 389] also refers to a number of earlier, comparable American studies. He summarizes the evidence of the preceding 50 years as follows:

> What can fifty years of research tell us about the profitability of mergers? Undoubtedly the most significant result of this research has been that no one who has undertaken a major empirical study of mergers has concluded that mergers are profitable, i.e., profitable in the sense of being "more profitable" than alternative forms of investment. A host of researchers, working under different points of time and utilizing different analytic techniques and data, have but one major difference: whether mergers have a neutral or negative impact on profitability.

Conglomerate and Non-Conglomerate Acquisitions

Most studies make little or no distinction between the performances of different types of acquisition. Since there are awkward practical difficulties in distinguishing between horizontal and vertical acquisitions, the most common distinction made is the one between the combined performance of both types and that of conglomerate acquisitions.

Weston and Mansinghka [1971] examine a sample of 63 firms that were or became conglomerates during the period 1958-68, when American conglomerates grew rapidly in size and importance. This trend prompted many observers, including these two writers, concerned about the anticompetitive consequences of takeovers, to respond to analysts like Reid [1968], by presenting arguments in favour of the diversified *M*-form firm. Based on their own performance measures they question Reid's measures and consequently his mixed assessment of the profit performance of conglomerates, arguing that the conglomerates in their sample improved their collective performance, relative to a control group, to an equal one. According to their reading of economic theory, it is precisely this upward normalization of the relative earnings of the conglomerates' acquisitions that is its principle raison d'être as a corporate form.

In his reply, Reid [1971, p. 942] defends his performance measures and reiterates his earlier judgment. In view of the still heated debate about the soundness of the conglomerate form, it is worthwhile to quote him directly:

> The results of this study indicate that the conglomerate merger is a special case among the various merger types, with the firms using it displaying a unique performance pattern in comparison with firms using alternative growth strategies. While the profit-to-stockholders variables were stronger in this group than in the other merger-type groups, size-maximization appears to be a particularly strong factor in the conglomerate group. (The conglomerates also consistently recorded larger increases in sales and assets than in the market price of their common stock.)

He then immediately goes on to say:

> Perhaps the most striking finding was the superior performance of the firms following a pure "internal-growth" strategy, a result that suggests investments in new plant and equipment add specifically significant productivity advantages and that firms aggressively using this method of growth can benefit not only the economy but their stockholders as well.

In a word, although diversified acquisitions by conglomerates may serve the interests of shareholders better than do horizontal or vertical acquisitions by non-conglomerates, the main impact of conglomerization is upon size-related variables that serve the interests of managers. Moreover, even these variables – as well as the profit-related variables that are of primary interest to shareholders – would be more positively affected by a growth strategy that involved the direct purchase of the sought-after assets, rather than their indirect purchase in the guise of existing firms.

The results reported by Melicher and Rush [1974] shed further light on the findings of Weston and Mensinghka. These writers compare the profits of 61 conglomerates with those of their acquisitions and find that the acquirees had previously been significantly more profitable than their acquirers. In contrast, the 71 non-conglomerate acquirers tended to acquire firms of equal profitability. Boyle [1970] and Conn [1976] report a similar result from their respective samples of conglomerate and non-conglomerate acquisitions. As Mueller [1977] observes in his survey of American evidence on conglomerate profitability, it is hardly surprising that overall profitability rises when firms acquire other more profitable firms. He also points out that the debt/equity ratios of conglomerates tend to be much higher than those of non-conglomerates. This implies that conglomerate acquisitions tend to be financed much more heavily by debt than do non-conglomerate ones. Consequently, in an economic downturn the vulnerability inherent in their heavier contractual interest obligations could result in damage to their relative profitability. According to Reid [1971], this is precisely what happened after the bull market of the 1960s ended.

United Kingdom and Western European Evidence

Singh [1975] reports on postwar British takeover experience, with special reference to the years 1955-70. He does not distinguish between conglomerate and non-conglomerate acquisitions but, since conglomerate acquisition was then a much less frequent event in the United Kingdom than in the United States, his finding that acquiring firms were generally more profitable than their acquirees is probably consistent with American experience so far as non-conglomerate acquisitions are concerned. What is more important, however, is that he confirms the common conclusion of American analysts that, after acquisition, assets either become less profitable, or at best they remain at their previous level of profitability.

Meeks [1977] studies 223 British takeovers that occurred between 1964 and 1972. He reports that the typical acquired firm's earnings were equal to its industry's average while acquirers tended to be higher-than-average profit earners. As to post- as compared with preacquisition profitability, he too finds that the amalgamated group became less profitable than its constituent parts had previously been.

The study of seven countries edited by Mueller [1980] is one of the few in which the experience of different countries during much the same period is looked at on the basis of reasonably standardized criteria. Takeover results are reported for the United States, the United Kingdom, Belgium, the Federal Republic of Germany, France, the Netherlands, and Sweden. Most of the takeovers occurred between the early 1960s and around the mid-1970s, although the sample sizes varied widely. Most of the profitability measures used are accounting measures, but stock-market returns to shareholders are also computed.

The results show some variation between countries. In four countries – Belgium, the Federal Republic of Germany, the United States and the United Kingdom – amalgamated post-acquisition profit performance improved, on average, over preacquisition performance in relation to one control group but not in relation to another. Mueller suspects that most of the apparent improvements were due either to the weaker performance of the control group or to tax factors, rather than real ones. He emphasizes that all the reported improvements are statistically insignificant, in contrast with the statistical significance of the results in the three countries for which deteriorated performances are reported. His overall impression of the results of the accounting data-based measures is that the acquisitions had little or no effect on profitability.

A rather different story emerges from the stock-market returns earned by shareholders. Although these results are not computed by means of a capital pricing model, there is an interesting relationship between them and the results of American studies that *are* computed by means of this model.

The analysis is performed for four countries and entails the calculation of stock-market returns to acquiring firms' shareholders, usually during each of the three to five years preceding and following the acquisition. This not only permits comparisons that are partly analogous to those based on accounting data, it also indicates the annual changes in profitability that occurred as the acquisitions were digested. In each country the stock market's early assessment of the acquisitions tended to be positive but, as time passed, its enthusiasm tended to wane. Sometimes it waned to the level of its preacquisition valuation of the firms' shares, sometimes to a lower level. Mueller's interpretation of this trend – an interpretation that implicitly assumes that the markets quickly and fully assimilated all pertinent information – is that the markets responded rationally to the emerging, discouraging accounting evidence on post-acquisition performance. As will be seen forthwith, analogous (mostly American) trends have been discerned from, and similar interpretations made of, stock-market data-based performance measures generated by capital asset pricing models.

The Financial-Economics Approach

The generic capital asset pricing model postulates that in equilibrium, the expected return on a traded stock is a linear function of its "systematic" relative-risk relationship (denoted by beta) with a diversified market portfolio. Using beta to estimate the "normal" return on the stock, a comparison can be made with the return actually earned after the stock market became aware of an impending firm-specific "event," such as an acquisition, to derive the "abnormal" return attributable to that event. Since, by definition, an acquisition involves both an acquiring and a target firm, this means that two abnormal returns can be estimated, one for each firm (if both firms are traded). The exercise is underpinned by the assumption that all publicly available information pertaining to a given stock is immediately and fully reflected in its price. Since this methodological approach was first employed by Mandelker [1974], many writers have adopted it to the study of the wealth effects of acquisitions. It is not surprising, given the sophisticated nature of U.S. securities markets, that much of the greater part of this research pertains to American experience.

American Evidence

The American studies are too numerous and similar to warrant individual consideration. Those that appeared prior to the early 1980s are summarized in Jensen and Ruback [1983], and those that have appeared since 1983 are summarized in Jarrell et al. [1988]. These studies invariably (and unsurprisingly) find that acquisitions bring substantial gains to shareholders of target firms. For shareholders of acquiring firms, the consequences are on a decidedly smaller scale, generally leaving them either slightly worse off or in a break-even position. Nevertheless, these results have prompted adherents of the financial-economics school to argue that on balance, the "market for corporate control" operates effectively to advance society's interests by increasing total wealth. It transfers corporate assets from managers less able or willing to undertake value-maximizing activity to managers more able or willing to do so. What is more, they maintain, it usually accomplishes this socially desirable end without increasing the market power of the firms involved (see Jensen and Ruback [1983] and Jensen [1988 and 1989]).

Canadian Evidence

An even more favourable judgment on acquisitions, arrived at by similar means, is made with respect to Canadian experience by Eckbo [1988]. He reports that although shareholders of Canadian target firms are, like their foreign counterparts, the main beneficiaries of the acquisitions, shareholders of acquiring firms also do quite well. He argues that if the capital asset pricing models that produced estimates (pertaining to other countries) of either zero gains or losses to shareholders of acquiring firms had been better specified, the abnormal returns to those shareholders would have been higher. This view not only puts Eckbo in a minority position in the literature, it also puts him at odds with Calvet and Lefoll [1985*a* and 1985*b*], the authors of one of the few analogous Canadian studies. They report gains to target-firm shareholders and losses to acquiring-firm shareholders.

Some Conceptual Reservations and a Longer Retrospective View

The sanguine view of the profitability of corporate acquisitions generally taken by the financial-economics school has not gone unchallenged on both theoretical and practical grounds. While this study is not the place to enter the controversy, it is useful to note some of the points that have been raised, in particular the one referring to the interval during which the reported wealth effects accrue to the shareholders of acquiring firms.

Scherer [1988] summarizes the quite comprehensive criticism of the capital asset pricing model approach to the analysis of the profitability of takeovers. This criticism questions whether changes in stock-market prices necessarily reflect changes in real value, whether stock markets are informationally efficient, and at a more fundamental level, whether existing capital asset pricing models are even capable of answering these questions. At the operational level – which is of special interest to us – the adequacy of the intervals during which the post-acquisition effects are generally examined is also questioned.

"Event" studies typically track share-price movements over quite short intervals (usually a few weeks) after the announcement of the event in question, and much of the enthusiasm for the takeover as a wealth-enhancing mechanism rests upon such short-term evidence. Those studies that examine post-acquisition share-price performance over one- to three-year intervals tend to report *negative*, statistically insignificant, abnormal returns (an outcome that Scherer attributes to the high variances that characterize the longer-term behaviour of random-walk organisms like stock markets). To him, the importance of these negative abnormal returns is not diminished by their lack of statistical significance. Even to analysts of the opposite methodological persuasion like Jensen and Ruback [1983, p. 20], these negative abnormal returns are "unsettling, because they are inconsistent with market efficiency and suggest that changes in stock price during takeovers overestimate the future efficiency gains from merger."

What is interesting, from our perspective, is the *qualitative* resemblance between these findings – that stock markets are strongly inclined to develop sober second thoughts about the profitability of acquisitions – and those arrived at in Mueller's study of European experience. It is also of interest that many American conglomerates whose performance had been hailed during earlier decades as evidence of the inherent superiority of the conglomerate as a corporate form, have since performed much less profitably. They have also displayed a marked tendency to divest their holdings.

5 New Canadian Research

The purpose of this chapter is to report and discuss the findings of a new investigation into the profitability of corporate acquisitions in Canada. But first, a word about the data used in researching the profitability of acquisitions.

A striking feature of the research on the profitability of corporate acquisitions – one which is also characteristic of the corpus – is that analysts have usually worked with *either* accounting or stock-market data; only rarely have they worked with both at the same time. Given the shortcomings of accounting data in accurately and objectively measuring wealth changes in an inflationary era, for example, it is understandable that analysts should prefer to work with stock-market data. These numbers, after all, represent *realizable* values, and changes in share prices produce actual and immediate wealth effects, as do dividends. The acquisition process, however, has always involved many firms – on both sides of the transaction – whose shares have never been publicly traded or are no longer traded. Consequently, stock-market data may never have existed with respect to their performance, or, if they did exist, they ceased to exist after the acquisition was consummated. In either event, only accounting data are available for analysis.

This is not to suggest – although the suggestion is made often enough[1] – that accounting data are inherently incapable of yielding reasonably sound profitability measurements that permit valid comparisons across firms and industries and over time. Admittedly, the financial statements of any corporation are likely to reflect some degree of idiosyncrasy and self-serving subjectivity. There is, nevertheless, enough robustness in the judicially recognized concept of Generally Acceptable Accounting Principles to endow most audited financial statements (even though they are not usually adjusted for inflation) with a core validity that permits reliable comparisons between firms, if not of every year's results by themselves, then of the average results for a number of years. It is not an untenable assumption, in other words, that over an interval of reasonable length the mean deviation of the reported profit from the true average profit probably approaches zero. Otherwise, as Long and Ravenscraft [1984, p. 499] put it:

> Given the amount spent in the private sector on analyses of accounting profit data, a substantial market failure is required to explain such an occurrence if the data are valueless.

Furthermore, as remarked by Herman and Lowenstein [1988], it is mainly on the basis of accounting data that major decisions are routinely taken by most economic agents, from corporate managers to labour leaders, suppliers, bankers, and various capital-market actors. Nor is the stock market indifferent to accounting results; there exist many circumstances when it has little else to go by. As well, the importance of accounting data to shareholders is often enormous, even when stock-market data are also available. Simply put, many shareholders do not regard themselves as mere stockjobbers having no more than a transient interest in their firms' affairs. They therefore require a continuous record of consistent verisimilitude in order to derive a sense of the firms' relative performances, across firms and industries and over time.

Partial Acquisitions of Publicly Traded Firms

Our analysis of the profit performance of acquired, publicly traded Canadian corporations that remained publicly traded after acquisition utilized both accounting and stock-market data. It builds upon the work of Jog and Riding [1988], which also focuses on Canadian experience. Because we make use of their data, and because theirs is the first Canadian study of its kind (and, apparently, one of the very few done anywhere), we commence with a brief discussion of their approach.

Jog and Riding draw their sample of partial acquisitions mainly from the Merger Register maintained by the Department of Consumer and Corporate Affairs.[2] They describe their criteria for including a given acquisition as follows [p. 238]:

1 The transaction should not be classified as a "total acquisition."

2 The target firm must be listed on the Toronto Stock Exchange.

3 The transaction was announced during 1970-81. This was necessary to allow the analysis of the premerger (five years prior) through the postmerger period (at least four years postmerger).

There is a caveat with respect to both their research and the new evidence reported below: the overlapping samples upon which both are based are not as pristine as might be desired. One problem revolves around the concept of control and is practically insoluble. Like the shareholder holding over 50 per cent of a corporation's voting shares, a shareholder holding a smaller – even a much smaller – proportion of those shares may also exercise effective control. It all depends upon how widely the remaining shares are held. This implies that the samples may contain partial acquisitions in which less than 50 per cent of the shares changed hands, but which did not involve a change in effective control because the remaining shares were closely held.

Happily, the Canadian financial press often identifies those partial acquisitions in which enough shares changed hands to permit a transfer of effective control, and this provides a valuable check. It is also true that the officials at the Department of Consumer and Corporate Affairs who maintain the Merger Register have knowledgeable eyes. Nonetheless, the possibility remains that some (hopefully, very few) of the partial acquisitions included in the samples would not have been included if the internal records of the target firms had been scrutinized. A further problem arises from the possibility that some "mergers" recorded in the Merger Register involved the sale of specific assets by the target firm, rather than the transfer of its shares.

In another respect, the Jog-Riding approach is admirably distinctive. It is a significant shortcoming of most of the accounting data-based literature on acquisitions that, unlike the capital asset pricing model literature, it pays little or no attention to the risk borne by the firms involved. Risk is a function of the variability of profits and is usually estimated by either the standard deviation of the profit measure in question or its coefficient of variation. Mueller [1980], one of the few who makes this estimate, uses the coefficient of variation. Jog and Riding do not estimate the variability of their accounting data-based profit measure, but they do estimate that of their stock-market data-based measure, by means of both its variance and its beta.

Their stock-market data-based profit measure is a total-return rate called "wealth relative" and is defined as:

$$WR_t = \frac{P_t - P_{t-1} + D_t}{P_{t-1}}$$

where P_t and D_t are, respectively, the closing price of the share and the dividend paid on it during the month t. This total return is then expressed in net-of-market terms, by deducting from it the corresponding return of the Toronto Stock Exchange's 300 Index. Their sample (for this part of the exercise) consists of 75 firms whose shares were traded at least five years before and four years after being acquired. They report that for the sample as a whole, the change in average net-of-market return during the post-acquisition period is not statistically significant.

Taking both net wealth relatives and variances into account, the following qualitative changes are apparent from Table 5-1.

Table 5-1

Changes in the Stock-Market Performance of Partially Acquired Canadian Firms, 1971-81

	Net wealth relatives	
Variance	Increase	Decrease
Increase	19	15
Decrease	20	21

SOURCE Based on data from Jog and Riding [1988].

Since an unambiguous improvement (deterioration) only occurs when a firm records an increase (decrease) in its net-of-market return *along with* no increase (decrease) in its variance, there are 20 cases of unambiguously improved performance and 15 cases of unambiguously deteriorated performance. The remaining 40 outcomes must be judged as being ambiguous. This is the most that can be said on the basis of these results. Although the rigour of the reasoning behind these judgments is unimpeachable, it does have the regrettable effect of leaving over half the sample firms in a qualitative limbo. As will be argued shortly when presenting our new evidence, the pervasiveness of this problem justifies a less stringent criterion.

Jog and Riding's analysis of their accounting data is more limited than that of their stock-market data. Their accounting data-based sample is also much smaller than their stock-market data-based sample and their observation interval is shorter. Only 41 firms are studied, and the data extend over a seven-year period ranging from the three years preceding the partial acquisition to the three years following it. Four ratios are reported, of which the most pertinent is the after-tax rate of return on equity. Since, unlike their analysis of stock-market data, no control group's performance is considered, no qualitative inference can be made from the finding that, of the 41 firms, 27 reported a post-acquisition increase in their three-year average rate of return on equity, while 14 reported a decrease. This finding cannot be set beside the one based on stock-market data, which did involve a control group.

Sample, Performance Measures, and Control Groups

Our sample of partial acquisitions consists of the firms previously identified by Jog and Riding, augmented by similar partial acquisitions that occurred in 1963-69 and 1982-83. An 11-year interval (five years "before" and five years "after") is not applied, however, to *both* the stock-market data-based profit measure and the two accounting data-based profit measures that are utilized. The stock-market measure and (probably) one of the accounting measures are the same as those utilized by Jog and Riding; the second accounting measure, the before-tax rate of return on assets, is new.

The Sample

A review of the entries in the Merger Register from its inception in 1963 reveals that some firms were acquired – either totally, or much more often, partially – more than once. Some repeated partial acquisitions are separated by fairly short intervals, others are more widely spaced. Since most repetitions occurred within the same 11-year interval, it is unavoidable that deciding whether or not to regard them as separate events is rather arbitrary. The procedure adopted here regards those partial acquisitions that were repeated within two years as single events, so the preacquisition observation period begins five years before the first acquisition, and the post-acquisition observation period ends five years after the last.

Performance Measures

Both accounting data-based rates of return are calculated before extraordinary (in other words, non-recurring) revenue and expense items. The decision to exclude these often substantial items from the numerators involves a trade-off. From an *ex post facto* perspective, extraordinary items are as much gains or losses to the firm and its shareholders as are those gains or losses resulting from "ordinary" operations. It is also likely that, however damaging these items may be to the accuracy of the annual comparisons of the firm's performance, they have little impact upon comparative performance measures averaged over several years. But because this annual distortion can play havoc with the *risk* measure, the analyst is obliged to make a Hobson's choice. On balance, it seems less damaging to sacrifice some accuracy in the estimates of the average rates of return, in favour of more accurate risk measures.

Another matter that warrants mention is the fact that the tax component of the after-tax rate of return on equity is the sum of annual income tax payable and annual deferred income tax. Since deferred taxes result from differences between book depreciation and capital-cost allowances, most firms will never actually pay them as long as they maintain their previous levels of capital formation. They are, therefore, not really in the same category as the income taxes payable. Nevertheless, they are treated as being in the same category, for two reasons: first, because they could not be identified in the case of many of the sample firms, and second, because including them probably does not significantly distort the relationship between the firms and their control groups.

The reliance upon total equity in the denominator of the rate of return on equity likewise inflicts little or no analytical damage. The most appropriate measure of the book profits earned by shareholders is, of course, the rate of return on common equity, but the data simply do not permit separating the respective equity and dividends attributable to the various classes of preferred shareholders. The fact that the sample firms and their control groups are treated alike also serves to minimize distortion.

Control Groups

The choice of the most suitable control group[3] is easiest in the analysis of stock-market data. The average shareholder presumably views the performance of a given traded stock in the context of the performance of a diversified portfolio of other traded stocks. Thus the TSE 300 Index fits the bill. When using the firm's financial statements to derive the accounting counterpart of this performance measure, namely, the after-tax rate of return on equity, an analogous, weighted rate of return for the firms included in the TSE 300 Index might be logically satisfying, but developing it is a laborious task. The nearest feasible proxy is the "All-Industries" weighted-average rate of return derived from Statistics Canada's corporate financial statistics, a good proxy because of the long shadow cast by large firms. To be on the safe side, however, an additional series is calculated in which the control group is the firm's industry defined at the three-digit Standard Industrial Classification (SIC) level.

Matters become rather more awkward when the analysis is extended to the third accounting data-based performance measure, the before-tax rate of return on assets. Ideally, the performance of each firm should be compared with the corresponding weighted-average performance of its peer group, but finding such a group is not easy, given the differences in product mixes of most large firms in most Canadian industries. Some analysts, such as Mueller [1980] prefer to choose a couple of firms in the same industry to serve as the control group. Others, such as Ravenscraft and Scherer [1987], choose industry-wide control groups defined at the three- or four-digit level of the Standard Industrial Classification. In view of the high concentration levels of most Canadian industries on the one hand, and the highly diverse product mixes of their leading firms on the other, the three-digit industry control group seems more suitable than a small handful of arbitrarily chosen "peers."

Both the pre- and post-acquisition performances of the sample firms are assessed in terms of two variables: an average rate of return over three-, four-, and five-year intervals respectively, and its associated standard deviation. As was noted in connection with the Jog-Riding results, an *unambiguous* improvement (deterioration) in performance requires both an increase (decrease) in the firm's average-profit measure and no increase (decrease) in its risk measure. This degree of rigour produces a set of comparisons that are devoid of ambiguity but, unfortunately, as we have seen, unless something further is done, it also produces another set that defies assessment. As our overlapping samples confirm, the results in a substantial proportion of the cases in any reasonably sized sample of acquisitions are likely to consist of performance indicators that vary in the same direction. A decision-rule that simply declares all such results to be ambiguous, without providing a basis for further qualitative discrimination between them, is too austere in our view. A less uncompromising standard is warranted.

There is, however, a problem that must be faced in developing such a standard. The willingness to bear risk is highly subjective and complex. Matters improve, but only slightly, if we assume that, for most individuals, risk-bearing is an activity that has disutility, rather than utility, and that they must therefore be compensated if they are to undertake it willingly. The important question here is: What kind of relationship exists between a given change in the average shareholder's risk-bearing in holding a specific number of a firm's shares, and the compensating change in the income earned by those shares that is necessary to keep that shareholder at the same level of well-being? It is realistic to assume that the average shareholder is risk-averse, in the sense that, for successive, constant rates of increase in the risk attached to a given shareholding, the compensating rates of increase in income must themselves increase. Conversely, for successive, constant rates of reduction in risk, the compensating rates of reduction in income must decrease. This assumption advances the issue theoretically, but not practically.

We have no feasible way of estimating these compensating rates of change for the firms and the shareholders in our sample; hence, there is no alternative but to assume a direct, one-to-one relationship between them. Put another way, instead of proceeding on the basis of the conceptually superior, but non-operational assumption that increased risk-bearing is subject, like other negative goods ("bads"), to increasing marginal disutility, all the shareholders of all the firms in the sample are treated as though their risk-bearing is subject to constant marginal disutility. Thus the performance of an acquired firm is regarded as having improved if the standard deviation of its post-acquisition average rate of return increased over its preacquisition counterpart at a certain rate, while the corresponding average rate of return increased over its counterpart at a greater rate. If, however, the average rate of return increased at a lower rate, the performance is deemed to have deteriorated. Similarly, the performance is deemed to have deteriorated if a post-acquisition reduction in the standard deviation is accompanied by a greater decrease in the average rate of return, and to have improved if accompanied by a lower decrease.[4]

Findings

These criteria are first applied to a performance measure intended to serve as a proxy for the degree to which a firm's managers put the assets under their control to productive use, namely, the before-tax rate of return on assets. Table 5-2 gives, for the sample firms as a group, the qualitative assessment of the post-acquisition change in the average – over three successive intervals – of each firm's annual rate of return on assets, net of the corresponding rate of return for its industry, and modified for risk-bearing (along the lines just described) by the corresponding change in the standard deviation.

It shows that approximately 40 per cent of the acquired firms record an improved post-acquisition performance, that approximately 40 per cent record a deteriorated performance, and that the performance of approximately 20 per cent remained unchanged. It also shows that, for the group as a whole, this track record would have been perceivable if the observation period had been confined to the three years before and after the acquisitions. Extending the observation period first to four, and then to five years before and after the acquisitions changes little in the way of overall assessment. For all three intervals there is no statistically significant difference between the group's average preacquisition net rate of return and its post-acquisition counterpart.

Table 5-2

Changes in Risk-Adjusted Net Rates of Return on Assets of Partially Acquired Canadian Firms, 1963-83

	$t^1 \pm 3$		$t \pm 4$		$t \pm 5$	
	Number of firms	Per cent	Number of firms	Per cent	Number of firms	Per cent
Improvement	44	40	44	41	44	42
Deterioration	40	36	45	42	46	43
No change	26	24	19	17	16	15
Total	110	100	108	100	106	100

1 *t* is the year of acquisition.
SOURCE Based on data from Jog and Riding [1988] and additional information provided by the author.

We now turn to three performance measures that reflect the returns earned by a firm's owners, namely, its shareholders. One of these is a stock-market measure; the other two are accounting measures. The qualitative story they tell of the performance changes that followed the acquisition of the sample firms is summarized in Table 5-3.

There is a striking similarity between this story and the one told in Table 5-2. The distribution of relative performances is again approximately 40 per cent improved, approximately 40 per cent deteriorated, and approximately 20 per cent unchanged. Again, there is no statistically significant difference between the pre- and post-acquisition rates of return.[5] And, as before, this overall picture could have been developed by observing only three pre- and post-acquisition years. It could also have been developed from *either* the stock-market data or the accounting data, a finding that should go some distance towards bridging the perceptual gap between analysts working with only one type of data. (The story that emerges when the control group for the accounting data-based rate of return on equity is the industry to which each firm belongs, is basically similar.)

Much the same distribution of qualitative changes emerges, as can be seen in Table 5-4, when we contrast acquisitions by foreign-owned firms with those by Canadian-owned firms.

Since there is no a priori reason to expect the post-acquisition profit performance of an acquired firm to be affected by the nationality of the owners of its acquiring firm, this result is not surprising. The results reported in Table 5-5 occasion equally little surprise, for similar reasons. The distribution of outcomes by two types of acquisition, horizontal and non-horizontal, conforms to the now familiar pattern.

The picture takes on another dimension in Table 5-6, which distinguishes those acquired firms that were superior preacquisition performers in their respective industries, from those that were not; being either inferior performers or performing at the level of the industry average. Each of the second and third categories (labelled, respectively, "losers" and "average performers") accounts for approximately 40 per cent of total acquired firms; the remaining 20 per cent are superior performers, categorized as "winners." This distribution suggests that the stigma of failure, as well as the lacklustre of ordinariness, may have greater allure for would-be acquirers than the aura of success. Alternatively, from a managerial standpoint, it could be inferred that among the benefits accruing to those managers that operate more profitably than their industry peers, is a reduced likelihood that their firm will be taken over by another firm. Put still another way from the same perspective: to the burdens already borne by managers whose firms' profits are at or below par must be added a takeover spectre that looms larger on their horizons than it does on the horizons of their more successful colleagues.

The plot thickens further as we consider Table 5-7. It appears that over half the acquired firms that had previously qualified as losers, record improved post-acquisition performances; which is more than double the rate at which former winners do.

Conversely, while only about one third of the losers do so, well over half the winners record deteriorated post-acquisition performances. To round out the picture, Table 5-8 presents data on how the post-acquisition results break down by preacquisition status.

Table 5-3

Changes in Risk-Adjusted Net Rates of Return to Shareholders of Partially Acquired Canadian Firms, 1963-83

	Stock-market net wealth relatives						Accounting rates of return on equity											
							Control: all industries						Control: industry					
	$t^1 \pm 3$		$t \pm 4$		$t \pm 5$		$t \pm 3$		$t \pm 4$		$t \pm 5$		$t \pm 3$		$t \pm 4$		$t \pm 5$	
	Number of firms	Per cent	Number of firms	Per cent	Number of firms	Per cent	Number of firms	Per cent	Number of firms	Per cent	Number of firms	Per cent	Number of firms	Per cent	Number of firms	Per cent	Number of firms	Per cent
Improvement	39	39	43	47	37	43	42	38	44	40	40	37	43	38	46	43	38	39
Deterioration	51	51	43	47	43	50	44	40	44	40	52	48	39	35	42	39	40	41
No change	9	10	6	6	6	7	24	22	21	20	17	15	31	27	20	18	20	20
Total	99	100	92	100	86	100	110	100	109	100	109	100	113	100	108	100	98	100

1 t is the year of acquisition.
SOURCE Based on data by Jog and Riding [1988] and additional information provided by the author.

Table 5-4

Changes in Risk-Adjusted Net Rates of Return on Assets[1] of Partially Acquired Canadian Firms, by Foreign and Domestic Acquiring Firms, 1963-83

	Improvement		Deterioration		Unchanged		
	Number	Per cent	Number	Per cent	Number	Per cent	Total
Foreign	9	39	11	48	3	13	23
Domestic	30	44	26	38	12	18	68
Total	39		37		15		

1 Five years before or after acquisition.
Source Based on data from Jog and Riding [1988] and additional information provided by the author.

Table 5-5

Changes in Risk-Adjusted Net Rates of Return on Assets[1] of Partially Acquired Canadian Firms, by Horizontal and Non-Horizontal Acquisition, 1963-83

	Improvement		Deterioration		Unchanged		
	Number	Per cent	Number	Per cent	Number	Per cent	Total
Horizontal	25	44	23	40	9	16	57
Non-horizontal	14	44	14	44	5	12	33
Total	39		37		14		

1 Five years before or after acquisition.
Source Based on data from Jog and Riding [1988] and additional information provided by the author.

Here too, erstwhile losers stand out, substantially outnumbering the other firms in the improved-performance category. By way of contrast, consider, in Table 5-7, how the smaller category of erstwhile winners fared post-acquisition. The performance of over half of them deteriorated, a rate that is more than double the rate at which such firms improved their performance. The most evenly distributed performances are in the large category of average performers, but even for these firms, deteriorated performances outnumber improved ones. These intriguing results will be taken up again at the end of the next section.[6]

Looking at the comparison between the pre- and post-acquisition profitability performances of the sample firms as a group, the main impression is of motion without movement, certainly without progress. Using different measures and applying them over different intervals, we repeatedly see much the same picture. When Canadian firms are acquired by other firms, there are only about two chances in five that their subsequent profitability will improve; there are the same two chances in five that it will deteriorate. The remaining one-in-five chance is that there will be no change. As regards the average profitability of acquired firms as a group, it tends to remain unchanged. We can therefore add our own, not insubstantial evidence, to the large body of evidence accumulated on the experience of other countries that leads to the conclusion that, as a phenomenon, the corporate takeover does not improve profitability (to put it cautiously) – however profitability is measured. At best, it leaves profitability unchanged.

This finding is of considerable interest from several perspectives. We have already noted the fact that corporate managers are usually the prime movers when firms acquire other firms. Although they are ultimately indispensable to the process, shareholders are relatively passive. They play a largely acquiescent role, even though it is their assets that are at stake. It is worth their knowing, however, that taking

Table 5-6

Preacquisition Performance Status of Partially Acquired Canadian Firms, 1963-83

	Number	Per cent
Winners	24	22
Losers	44	41
Average performers	40	37
Total	108	100

SOURCE Based on data from Jog and Riding [1988] and additional information provided by the author.

Table 5-7

Preacquisition Performance Status of Partially Acquired Canadian Firms, by Post-Acquisition Performance, 1963-83

	Winners		Losers		Average performers	
	Number	Per cent	Number	Per cent	Number	Per cent
Improvement	5	24	24	57	15	38
Deterioration	14	58	16	35	16	39
Unchanged	5	18	4	8	9	23
Total	24	100	44	100	40	100

SOURCE Based on data from Jog and Riding [1988] and additional information provided by the author.

Table 5-8

Post-Acquisition Performance Status of Partially Acquired Canadian Firms, by Preacquisition Status, 1963-83

	Improvement		Deterioration		Unchanged	
	Number	Per cent	Number	Per cent	Number	Per cent
Winners	5	11	14	30	5	28
Losers	24	55	16	35	4	22
Average performers	15	34	16	35	9	50
Total	44	100	46	100	18	100

SOURCE Based on data from Jog and Riding [1988] and additional information provided by the author.

over other firms – invariably represented to them as being in their interests – is an activity that is as likely to leave them worse off as better off. Research into how it affects others, be they workers or other stakeholders in firms; how it affects overall corporate efficiency and competitiveness; and finally, what, if any, are its policy implications for Canada, is yet to be undertaken (see Chapter 6).

After the Morning After: Postconsummation Blues

Clearly, while the reasons why firms choose to expand by acquiring other firms all boil down to the same expected "bottom line"; namely, an improved post-acquisition profit performance by the acquired assets, more often than not turns out to be a vain hope. In this section we attempt to briefly provide some insight into why this is so, generally and in the Canadian institutional context.

Meeks [1977, p. iv] unequivocally titles his study of the profitability performance of British acquisitions *Disappointing Marriage: A Study of the Gains from Merger*, and on the title page he recalls the words of Robert Louis Stevenson: "In marriage, a man becomes slack and selfish, and undergoes a fatty degeneration of his moral being."

This unpromising prognosis, as we well know, is not implausible where acquired firms are concerned, but the marital analogy is inapt. It would be rather unusual, in a marriage between individuals, for one of the betrothed to arrive at the wedding accompanied by a household retinue, most – perhaps all – of whose senior members have rational grounds for viewing the union with trepidation. In a corporate "marriage" this is not in the least unusual. Because there are also other important differences, it would be more appropriate to regard the corporate acquisition not as a marriage implying a future relationship between the contracting parties, but as a transaction concluded by two parties, one of which immediately exits, leaving the other in charge of a third party upon whose subsequent behaviour the fate of the entire venture heavily depends.

It is, after all, managers of acquiring firms that usually initiate and always negotiate takeovers. The transactions, however, are concluded, not with their opposite numbers in the target firms, but with those firms' controlling shareholders. Once the deal is done, these shareholders leave the scene. Except insofar as they themselves are shareholders, managers of target firms are passive at this juncture. To return to (and further strain) the marital analogy, these managers attend the wedding only as invited guests, not as of right, and unless the takeover is very "unfriendly," they have little or no say in the dowry or marriage contract. It is, therefore, not surprising that some of them wonder how, and whether, they will fit into the new ménage. It is paradoxical that the parties consummating the union will not thereafter cohabit, and its future success will, to a significant degree, be in the hands of the very people that least desired it.

The best analogy is with a feudal estate administered by managers on behalf of absentee owners, who remain content and quiescent as long as their remittances are satisfactory in amount and regularity. If these owners should choose to sell their title to the estate in a transaction that effectively transfers decision-making power to the managers of another estate, the incumbent managers will inevitably feel anxious. In a corporate context, their level of anxiety is likely to vary with the degree to which the acquisition is "unfriendly," but even the friendliest of acquisitions is bound to provoke some anxiety in at least some managerial breasts.

The organizational dynamics associated with acquisitions have until recently been largely neglected, not only by economists, but also by scholars in other disciplines. As a result, much of the available evidence on this important subject is anecdotal. Nevertheless, as Walter [1988] reports in a survey of this evidence, it is quite suggestive. As might be expected, awkward post-acquisition behaviour on the part of acquired-firm managers manifests itself in different ways – though not necessarily in differing degrees – in different types of acquisition.

Before making distinctions by type of acquisition, two general observations are in order. Our focus in this study is on acquisitions in which the acquired firm continues to operate as a separate entity – there is little or no physical "merging" between acquirer and acquiree. Thus the acquiring firm's managers must exercise control at one remove. This is no minor consideration, even in the relatively rare case where the firms are neighbours. As any military commander can testify, the possibilities for honest misunderstanding and outright confusion, as the word goes down the line, are almost unlimited, even in seemingly straightforward communications. Since the usual acquisition is one in which the firms involved are geographically apart, often widely, problems are likely to arise all the more frequently. This could have the curiously perverse effect of increasing both the job security of the acquired firm's incumbent managers and their frustration levels. Having perhaps less autonomy than before (at least for a time), they must now follow the dictates of new managers whose "feel" for the local situation may (again, at least for a time) be superficial, if not faulty.

If the incumbent managers are replaced by a new team, this has its own problems. However talented these new managers may be, they must still learn the ropes in an unfamiliar setting that inevitably has its own peculiarities, many of them unforeseen and unforeseeable. In addition, even the most considerate and tactful new managers may find that they must overcome a good deal of suspicion, not to say hostility, on the part of subordinates who had grown accustomed to working with their predecessors. These contingencies exist even when the acquired firm previously was the subsidiary of another firm: the predecessor parent-firm managers had probably long since been adapted to.

Managers of target firms acquired in vertical acquisitions by much larger customer firms may feel dwarfed and "lost in the shuffle," and consequently bereft of autonomy and a clear sense of direction. The malaise is likely to be deeper because, however well-intentioned their new bosses – the managers of the acquiring firms – may be, they long remain mere neophytes in the field, unequipped to provide competent and timely guidance, while the controls they necessarily impose chafe and distract.

Similar tensions arise in all forms of non-horizontal acquisitions. In the so-called "concentric" case, where the acquirer is attracted to the acquiree because the latter has some technological capacity that will afford an opportunity to expand its own product lines and markets, it is likely that the internal systems of the firms are significantly different. There is, after all, more than one way to perform any function, and they could all be equally efficient. Instead of being content with achieving *compatibility* between systems, which would satisfy the demands of efficiency, the acquiring firm's managers often insist on imposing *uniformity*, an insistence that can mean scrapping the fruits of many years of hard work on the part of the acquired firm's managers. It then becomes necessary to add to the cost of adapting these managers to the new, imposed systems the less immediately tangible, but ultimately no less real, costs resulting from the chagrin that they must swallow. When the managers of acquiring firms allow arrogance to blind them to the possibility of equifinality – the equivalence of alternative approaches to a given task – they could end up losing more than they gain.

The preceding discussion referred to tensions arising from different ways of doing the same, or much the same thing. We now turn to those that arise from the variety of different ways of doing different things that is characteristic of the conglomerate acquisition, in which acquirer and acquiree are in different fields of endeavour. Except in "turnaround" cases, where the acquiring firm's managers intend to make a silk purse from a sow's ear, the main intrusions into the lives of the acquired firm's managers are likely to be in the area of financial, rather than technical, control. An internal capital market, after all, requires from its member firms particularly rapid and detailed financial reporting – only thus could it allocate resources more efficiently than could its external counterpart. As Walter [1988, p. 277] notes:

> The imposition of tightened financial control, however, means the loss of self-direction by managers who previously had substantial capital discretion and had been able to "manage the board" reasonably well.

The greater the proportion of the acquisition price that is debt-financed, the tighter the control is likely to be. As chronicled by Ravenscraft and Scherer [1987] in their case-study investigations into a number of ultimately unsuccessful conglomerate acquisitions, managers of acquired firms who have become less self-directed and self-reliant soon become less efficient as well.

Managers of firms acquired in horizontal acquisitions also face adjustment problems when the managers of an erstwhile competitor are their bosses. It is by no means pre-ordained that the new, familial relationship will write finis to their previous, perhaps long-standing, competitive relationship. There is evidence that even when combined market share increases following the acquisition, rivalries between linked firms resulting from ill-defined or overlapping jurisdictions can be as or more intense than those between actual, unrelated competitors.

This summary of the dysfunctional potentialities that could easily become realities on the morrow of corporate acquisitions is hardly exhaustive. For example, nothing has been said about the possible consequences that could ensue when departed managers of acquired firms place their expertise and intimate knowledge of their old firms at the service of rivals. There are, in fact, plenty of potential hornet's nests and pitfalls requiring no more than inadvertence or misadventure to stir up or plunge into. Enough has been said, however, to establish that after being acquired, the target firm becomes – and for some time remains – an arena in which a highly complex interaction of contending economic and organizational forces plays itself out. On the positive side, there are the real economic efficiencies, outlined in Chapter 2, that the acquisition could potentially generate. As with marriages between individuals, the aftermaths of unions between firms seldom entail nothing more difficult than a companionable, hand-in-hand stroll into the sunset, but – and this is the crucial point – in the sound unions the positive forces outweigh the negative, and post-acquisition performance soon improves. In unions where the balance is otherwise, post-acquisition performance deteriorates or, at best, remains unchanged.

We have deliberately not referred in our catalogue of organizational factors capable of sabotaging even the most economically promising acquisitions, to the empirical findings reported in the preceding section. It is better to make these distinctions between the post-acquisition aftermaths in the managerial ranks of acquired firms in the abstract, rather than attempting to provide verisimilitude by drawing on our empirical evidence. That evidence is derived from a sample that, although quite large enough to sustain the qualitative judgments that have been made, contains too few clearly identifiable acquisitions of the narrowly defined types, to provide reliable empirical evidence on the organizational contingencies that are specific to each type. This is particularly true of the most relevant evidence, that pertaining to the post-acquisition performances of acquired firms that had previously been, in the context of their respective industries, either winners, losers, or average performers.

Although the sample is too small to testify by type of acquisition, it is sufficient to allow some broad observations. These refer to the much higher success rate achieved by Canadian acquiring-firm managers in making silk purses from sows' ears, than in making either established winners into bigger winners, or established average performers into winners. Since, as we have just seen, the post-acquisition behaviour of acquired-firm managers can, *ceteris paribus*, make or break the acquisition, it may be that differences in that behaviour are at least partly explainable by the pre-acquisition performance category to which their firms belong.

Consider first the erstwhile losers. There can be few managers of firms whose earnings are consistently below their industry average that are entirely satisfied with how things are going, or are completely sanguine about the future. If there exist any managers that would welcome – and perhaps even solicit – a takeover of their firm, they are likely to be the managers of losers. Further, if there exist subordinates in an acquired firm that would readily, even enthusiastically, transfer allegiance and support to a new managerial team, they are likely to be found in losers. It is therefore reasonable to postulate, as a hypothesis that needs further investigation, that resentment, obduracy and other undesirable attitudes on the part of acquired-firm managers and their subordinates are likely to be least prevalent in firms in which all concerned agree that something – probably something fundamental – needs to be done.

The prevailing mentality in acquired firms with a superior, or even only an average earnings track record is likely to be entirely different. There is no reason for the managers or staff of a winner to feel the need for outside help or guidance – quite the contrary. Therefore, to expect them to roll out the red carpet for, and unquestioningly march to the different drum of the managers of their acquiring firm, is to expect a great deal. Since they are less likely to feel self-satisfied, the managers of average performers and their subordinates may feel less put upon by their new bosses; but they too are likely to restrain their enthusiasm for the new regime. All this, once again, is surmise, but it is not made from whole cloth. It is prompted by the evidence from our sample of acquired firms and should, at the very least, stimulate further research.

Broader Canadian Institutional Factors

The set of profitability outcomes of Canadian acquisitions that was reported above is best described, *qua* set, as a standoff: approximately as many improvements as deteriorations, the rest unchanged (2:2:1), and no statistically significant change in average performance. It would appear, then, that for every post-acquisition transition in which the positive factors outweigh the negative, there is another in which the opposite occurs. (In other, fewer cases the contending forces collectively nullify each other.) The contrast between this situation and the more unfavourable ones reported earlier suggests that other, more general factors may be impinging upon individual firms and industries in Canada, and netting-out during recent decades somewhat differently than they have done in comparable countries.

Managers are at the heart of the corporate takeover, but it is precisely because they can plausibly be cast in one role in one assumed context, and in quite another role in a different one, that it is so difficult to assess their impact.[7] In the kind of scenario described by "managerial-school" theorists on the subject of the firm, such as Marris [1964], managers have a great deal of autonomous, discretionary power. Safe enough in their positions as long as they generate enough profits to keep shareholders sufficiently satisfied not to unload their shares, they are more likely to devote the firm's residual resources to growth, rather than to profit maximization, for the very good reason that it is growth more than profits that after a certain point provide them with an optimal combination of income – both monetary and psychic – and security. From resolving to pursue growth (subject to the foregoing profit constraint) to making imprudent acquisitions that turn out not to be in the best interests of shareholders is but a step. On the contrary, insist market-for-corporate-control theorists, the same takeover device that was thought to be the vehicle for managerial self-aggrandizement is really the rod that chastises, by replacing them, those managers that fail to maximize – not merely "satisfice" – shareholder wealth. Jensen and Ruback [1983, p. 6] are quite unequivocal:

> ... Competition among managerial teams for the rights to manage resources limits divergence from shareholder wealth maximization by managers and provides the mechanism through which economies of scale or other synergies available from combining or reorganizing control and management of corporate resources are realized.

Depending upon ones a priori view of the corporate world, managers are either agents who seek to feather their own nests at shareholders' expense by making acquisitions, *inter alia*, that are more closely calculated to build their empires than to be profitable – or agents who bid for the privilege of replacing managers who engage in that very behaviour. According to Jensen and Ruback, managers more often than not effectively perform the latter function, to the benefit of shareholders. As we noted earlier, Roll [1986], along with several other managerial theorists, disagrees with this view, but on his own, quite distinctive grounds. He argues that hubris-prone managers persist in the mistaken belief that they know the true value of target firms better than the market does, and thus tend to fall prey to "winner's curse" – to the detriment of shareholders.

The fact that acquired assets seem to perform less profitably after being acquired than they did before, in effect implies that managers wearing empire-builder hats are fairly successful in keeping at bay those of their fellows that wear reformist, housecleaner hats. Since the Canadian evidence is rather less discouraging, the question arises as to whether there is anything distinctive in Canada's institutional environment that might have a bearing on managerial performance as custodian of shareholder interests.

Two features of the Canadian scene have particular bearing on this issue. One is the fact that after wholly-owned firms (either Canadian-owned or subsidiaries of foreign parents) whose shares are not traded are excluded, the proportion of firms that are candidates for takeover is smaller in Canada than it is in some comparable countries, for example the United States. This could imply that there are simply fewer opportunities in Canada for managers to indulge their empire-building ambitions, which could, in turn, impose greater prudence. Another distinguishing feature of the Canadian situation is that the shares of traded Canadian corporations are probably less, perhaps quite a lot less, widely held than the shares of traded corporations in comparable countries. This, again, is certainly true in relation to the United States. Hence Canadian managers, as a group, may operate (or may consider themselves as operating) under fewer but more observant shareholder-eyes, and are therefore under tighter rein than their counterparts in other countries. The upshot is likely to be managerial behaviour that is generally more protective of shareholder interests.

This implies a lesser tendency to undertake inadequately conceived acquisitions.

More generally, and institutional differences apart, it is also conceivable that these opposing managerial and market-for-corporate-control conceptions of the role of managers in takeovers are less incompatible than their more dedicated adherents might like to admit. Being human, the same managerial bosoms could simultaneously harbour urges that are at least somewhat mutually inconsistent, such as a territorial urge, and an urge to replace peers who too readily (and too unprofitably) yield to it. This is all the more likely if, due to a touch of hubris, these managers imagine that they can succeed where others have failed. For them, there is no inconsistency. In one institutional configuration the first urge could prove to be the stronger; in another, the second. In Canada, perhaps more than in other countries, the two urges seem to have balanced each other during recent decades.

6 A Research Agenda

The analysis presented in these pages should give pause to those Canadians (to say nothing of people in other countries) that argue that bigness is the *sine qua non* of the competitive firm in today's global economic environment. Since no one objects to the bigness that results from superior efficiency, these people are implicitly – and sometimes explicitly – arguing in favour of acquisition-induced bigness. Only through such growth, so the argument runs, could corporate pockets be sewn deeply enough to marshall the large financial pools required by contemporary technological exigencies and – since large pools can most readily allot "patient money" – to absorb their unavoidable concomitant of low short-term returns.

This is not the place to inquire how the low returns which result from the technological innovations deemed necessary for competitiveness are to be distinguished from those caused by inefficiency, so that the one may be provided for and the other remedied. Still less is it the place to address the full range of issues that will require governmental response as the challenges mentioned in the Chapter 1 crystallize during the 1990s. It would, in any case, be premature to do so. Although policy-oriented analysts cannot afford to wait until all the facts are at hand before plying their craft as historians can, there is a need for more evidence pertaining to Canada than is yet available on the emerging global dispensation. The identification of the issues and their delineation in testable hypotheses, the specification of the requisite data, their gathering when extant and their generation when not; these are a large part of the most useful contribution that the analyst could make at the present juncture. A large part but not the whole; there are also narrower questions that could be investigated now, and in terms that would serve and complement that later research. It is to several of these questions that we now turn.

Information Loss

If, as we and many other analysts have found, acquiring other firms is not a particularly promising way for firms to expand, what should the government do about it? The government can no more legislate prudence and wisdom on the part of corporate managers (or of anyone else) than it can morality, but one of the things it can and should do is foster an environment in which present and prospective shareholders and other capital-market actors are well informed on what is going on in the corporate sector. This will enable them to act with an improved awareness of the probable implications of alternative courses of action. It is a reasonable presumption that the fuller the awareness the greater the capital-market efficiency, but it is also probable that the more corporate managers feel themselves to be in a goldfish bowl (with respect to shareholders, not to competitors) the better they will serve shareholder interests.

The problem of information loss due to takeovers has been a matter of concern in Canada for quite some time [see Gorecki, 1979; Khemani, 1988], and there is no reason to doubt that the current wave of acquisitions is causing further damage. The problem is much less severe in the case of partial acquisitions than it is in that of the numerous fully acquired firms (whose shares cease being traded) whose results are consolidated in the financial statements of their parents. A comparison of the so-called "segmented" information pertaining to such subsidiaries provided in the consolidated annual reports of many Canadian parent firms, especially conglomerates, with the information these firms previously provided when they issued their own annual reports, would convey a reliable sense of how much is being lost. There are plenty of precedents to enable the federal government and, also, the provincial governments and securities commissions to take effective remedial action.

Corporate Governance and Anti-Takeover Devices

Among the ideas that have recently been put forward in the context of the current takeover wave, are ways to restructure the corporate board of directors and redefine its role, in order to better protect the rights of shareholders, especially minority shareholders. Another recent development is the variety of devices (such as "poison pills" and "greenmail") that managers have adopted to discourage unwelcome suitors [see Coffee et al., 1988]. In view of their newness and complexity, Canadian authorities would be well advised to examine these ideas and devices very carefully, especially the last, before emulating their counterparts in those American jurisdictions that have hastened to introduce new, often unprecedented regulations, the wisdom and legality of which have yet to be confirmed.

Before contemplating any Canadian regulatory action to inhibit corporate acquisitions, we need to improve our understanding of its probable consequences, as well as those of the wider effects of the acquisition phenomenon as a whole, which go well beyond profitability.

Redistributive Effects of Takeovers

It is a commonplace that it is not only shareholder interests that are affected by corporate acquisitions. How the acquired firm's resources are subsequently deployed also directly affects the welfare of its workers and its other stakeholders, such as lenders and suppliers. A good deal of attention was recently attracted by several American takeovers that were followed – sometimes under the protection of a bankruptcy court – by the renegotiation of collective agreements, to the substantial detriment of the affected workers. These are discussed in Shleifer and Summers [1988]. However, in a more comprehensive analysis of American experience, Brown and Medoff [1988] conclude, however, that the overall effects are rather less dramatic. The comparable Canadian experience does not seem to have been studied, a situation that deserves to be rectified. Unless we have some awareness of whether, to what extent, and in which direction Canadian acquisitions have been followed by transfers between shareholders, workers, and other interested parties, their post-acquisition relative profitability is not only an inadequate performance measure, but a potentially misleading one as well.

R&D Effects of Takeovers

No Canadian research seems to have been done on the narrow but important question of how acquisitions affect the R&D behaviour of the firms involved. In an extensive analysis of American experience, Hall [1988] finds that the overall effect has not been significant.

Conglomerate Takeovers

Quite apart from the phenomenon's quantitative aspects – which vary considerably among countries – the qualitative effects of the large *M*-form firm's diversification activities bear importantly on the question of which type of firm can best compete in a global context. The profitability performance of American conglomerates during recent decades – outstanding until the mid-1970s, lamentable since then – has prompted a great deal of spirited discussion of the efficiency of the genre. Canadian conglomerates, as a group, have received very little analytical attention. This is in spite of the fact that the group, dominated by about a dozen firms, doubled its share of total Canadian corporate assets and earnings – from approximately 10 per cent to approximately 20 per cent during the decade between the mid-1970s and the mid-1980s. This unprecedented growth has given Canadian conglomerates an importance to their domestic economy that very few other countries' conglomerates can match.

Taxes and Takeovers

As have the rules affecting interest deductibility, the tax rules concerning capital-cost allowances and loss provisions have (as we saw in Chapter 2) been held to offer incentives for firms to acquire other firms in transactions that they would not otherwise undertake. Consequently, various changes in the tax code have been advocated. American experience has recently been examined by Auerbach and Reishus [1988], but little or nothing is known about the corresponding Canadian experience.

Takeovers and Canadian Industrial Concentration

The issues dealt with under this heading are probably the most important policy issues that the takeover phenomenon thrusts upon the Canadian government. Canada has long had one of the most highly concentrated economies in the western world, which gives rise to the question: Have takeovers rendered Canadian industries more concentrated and, if so, does that matter in view of the rapidly increasing openness of the Canadian economy to the world? Apart from being very important from a policy perspective, the question is also unusually moot in analytical terms. Like the research on the profitability of acquisitions, there has been no shortage of investigations into the effects of acquisitions on the concentration ratios of various countries, or into the relationship between concentration ratios and both industrial efficiency and economic equity [see the extensive bibliography in Fairburn and Kay, 1989]. Unfortunately Canada, though not altogether neglected, is not prominent among them. Since the United Kingdom, like Canada, is what is described as a small open economy (which essentially means that it is much more impinged upon by its large set of trading partners than it is able to impinge upon them) the U.K. research is likely to be more relevant to the Canadian situation than the American research (for a change).

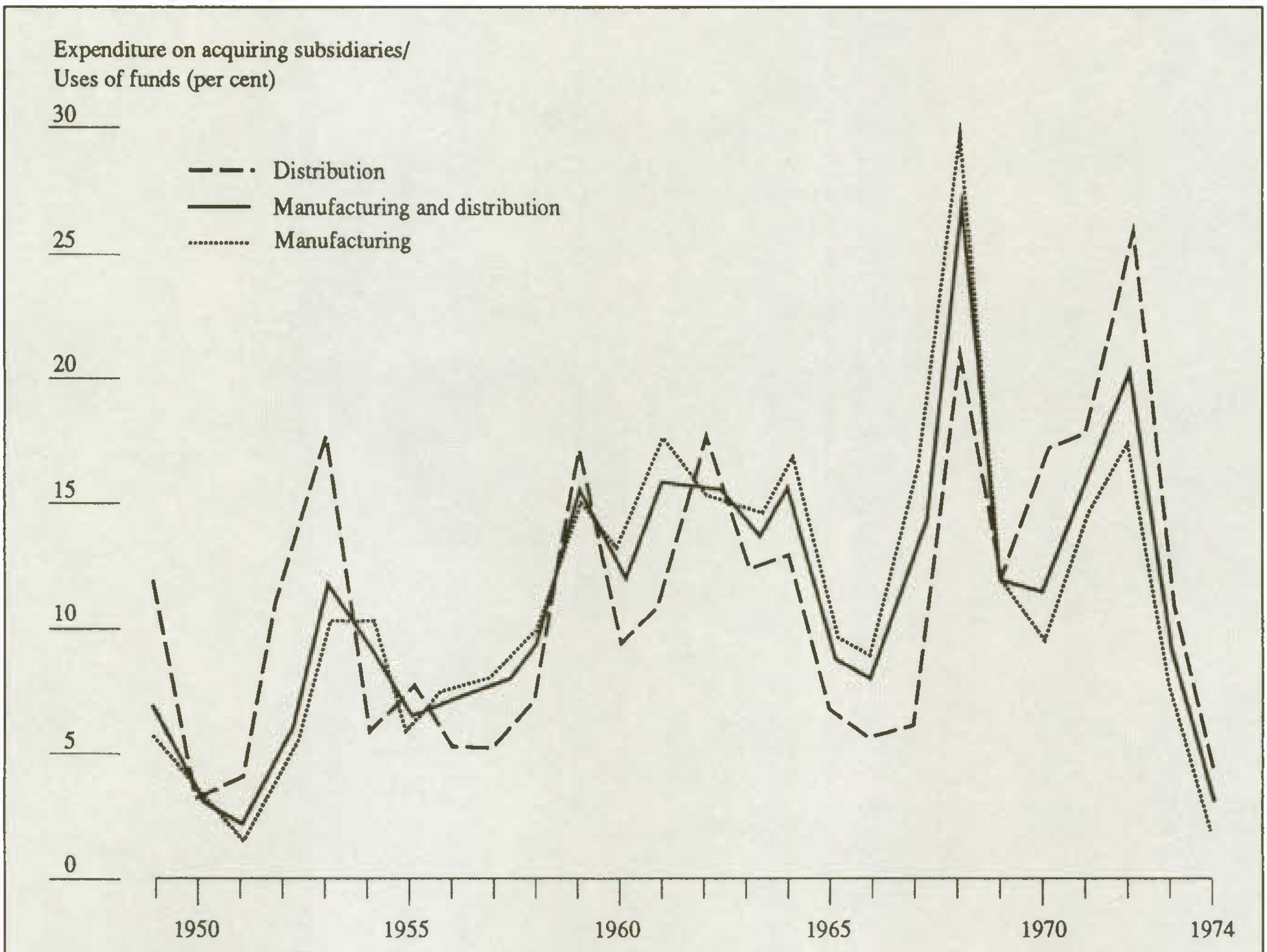
In their survey, Fairburn and Geroski [1989] report that recent research has tended to indicate – though not establish – that it is large market share rather than high concentration that matters in a given industry, and that its long-term consequences are diminished efficiency and perpetuated monopoly profits. Insofar as acquisitions contribute to increased market shares – and it is highly probable that at least horizontal acquisitions do – any similar findings that emerged from research on Canadian experience during the last few decades would have important implications for competition policy. Some three years have by now elapsed since an "efficiency defence" was explicitly provided for in Canada's competition legislation. Even though most of the evidence that would emerge would refer to acquisitions that occurred before the law was changed, it would shed useful light on the nexus between acquisitions and the efficient allocation of resources, to say nothing of their possible equity effects.

Like the research utilizing the industrial-organization approach to the study of the profitability of acquisitions, this kind of research has many long-standing methodological antecedents. During the 1980s, however, an ostensibly quite different and more useful way of viewing oligopolistic industries – of which Canada has many – gained prominence. According to the "contestable-markets" view of the world, what matters in terms of the efficiency and equity of industrial structures (subject to certain technical conditions) is whether outside firms *could* readily enter and exit them if they wanted to. If this contingency exists, incumbent firms, however oligopolistic their position, are forced to behave as though they are in a competitive market. Whether the contestable-markets approach is really the "uprising" in the theory of the firm that its more fervent advocates claim it to be, or whether, as its critics maintain, there is less to it than meets the eye, the importance of the policy issues it raises in Canada, whose oligopolistic industries are increasingly open to the world, hardly needs elaboration.

Appendix A

Chart A-1

Expenditure on Acquisition of Subsidiaries as a Percentage of Total Uses of Funds by United Kingdom Quoted Companies in the Manufacturing and Distributive Industries, 1949-74



SOURCE Mueller [1980].

Notes

Chapter 1

1 Most of the extensive literature on the overall profitability of corporate acquisitions makes no distinction between "mergers" and "takeovers," although the former is often a "friendlier" event than the latter. That tradition is maintained here, and these terms, together with the omnibus term "acquisition," are used synonymously.

Chapter 3

1 A fourth type, the "concentric" acquisition, is briefly considered in Chapter 5.

Chapter 4

1 A good summary of what is probably the most common version of the model can be found in Eckbo [1988].

Chapter 5

1 Fisher and McGowan [1983] is an important recent example.

2 They also used the data base at Laval University.

3 The analytical function of the control group is to approximate the counterfactual case. The acquisition of the sample firms precluded, by definition, the performances that they would otherwise have recorded. What principally distinguishes each firm in the sample from the representative firm in its control group is the fact that it was taken over by another firm while the representative firm was not. Hence, that firm's performance during the post-acquisition period is taken as the measure of how the acquired firm would probably have fared if its control had remained in the same hands. This does not, and could not, rule out the possibility that firms reporting deteriorated post-acquisition performances would have fared even worse if they had not been taken over, any more than it rules out, or could rule out, the possibility that firms reporting improved post-acquisition performances would have fared even better if they had not been taken over. Either of these precluded outcomes, if they were knowable, would change our judgment of the impact of the takeover. But they are not knowable, and we must therefore content ourselves with what is: the observable performances of both the acquired firms and the peers from which they differ mainly in only one respect.

4 The results based on Jog and Riding's "austere" criterion have also been computed, and are available upon request. As expected, the proportion of total firms falling into the ambiguous category is always substantial.

5 Hence, the 100-odd partial acquisitions studied ultimately added nothing to Canada's total wealth. This finding is not to be taken as evidence that Canadian corporate takeovers are undertaken until market forces reduce their net return (i.e., profitability change) to zero. Such an inference would only be legitimate if the marginal return from takeovers were equal to the average return. That, in turn, could only occur when the marginal and average returns are always equal, both to each other and to zero. Nowhere in the voluminous literature on the returns from takeovers reviewed in connection with this research is such a possibility even mentioned, and it may safely be assumed that something would have been said if there were any theoretical or empirical reason for doing so. Certainly, the evidence emerging from this exercise provides no such reason, quite the contrary.

As we have seen, there is much of evidence, derived from the experience of several countries, showing that more often than not the average return from takeovers is either negative or, as in the present case, zero. Far from suggesting that market forces are generally working as they should – to discourage economic activities from being continued beyond the point where they produce a net return – it strongly implies that takeovers, as a phenomenon, tend to continue well beyond that point. It is precisely because some takeovers generate negative marginal returns that average return (whose function has an inverted "*U*" shape) is driven down to zero. Whether this is due to what Roll [1986] describes as "hubris" on the part of managers of acquiring firms, or whether it is due to other factors, is a question that cannot be answered with confidence until a good deal more research has been done.

6 These results leave open the question of how individual firms fared according to the various performance measures, as a set, especially the stock-market and accounting rates of return to shareholders. This question, although very interesting, is beyond the scope of the present study. However, on the basis of casual inspection, it can be suggested that the variation among the measures may well prove significant.

7 Although this brief discussion, along with some of these findings, would usefully fit into research designed expressly to test the managerial-aggrandizement theory of takeovers, it is not to be confused with that research. Such an exercise would have to include an examination of the impact of takeovers on both the fortunes of the acquiring firms and (needless to say) those of their managers. Among other things, the possibility that acquired firms' unprepossessing post-acquisition performances are due to such devices as asset-stripping would need to be explored.

List of Tables and Charts

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Charts

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