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HIGH GEAR

A Case Study of the Hees-Edper Corporate Group

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EXECUTIVE SUMMARY

We compare firms in the Hees/Edper group independent firms of similar size and in the same industries over a four year period just prior to the first release of news that the group was in financial trouble. During this period, Hees/Edper firms show profitability levels comparable to (or below) those of the matched firms. Bronfman firms are also much higher risk investments well before the group's financial position began to deteriorate. They are more highly levered, but even after risk levels are adjusted for this, Hees/Edper firms risk levels remain much higher.

We conclude that Hees/Edper firms extreme incentive based compensation schemes led managers to adopt high risk strategies, and that the intercorporate co-insurance the firms' interlocking ownership structure allowed made this possible by increasing the group's apparent debt capacity. Since this higher risk did not improve overall performance, it was arguably an at an economically inefficiently higher level.

The higher leverage of Hees/Edper companies should have produced a sizable tax advantage due to the deductibility of interest at the corporate level. The mediocre performance of the companies thus raises the possibility that abnormally poor performance was masked by tax breaks.

The strongest public policy option to insure that the organizational structures of Canadian firms are efficient is vibrant and open capital and product market competition. Further relaxation of the foreign property rule, a continued liberalization of external trade barriers, and reduced protectionism of domestic capital market suppliers are steps in this direction.

Nuanced reforms to securities regulations that equip private investors with the ability and the incentive to prosecute alleged breaches of disclosure obligations would be useful, particularly in a setting of strained resources for public enforcement. So, too, are reforms to corporate and securities proxy rules that impair institutional shareholders' voices (such as the shareholder communication rules that require shareholders to bear the costs of a dissident proxy circular in the event of a disagreement with management). Also, federal regulators should recognize that section 9.1 of OSC code, which forces disclosure about intercorporate transactions in such groups is critically important in preventing abuse in groups like this. It should be a key part of any federal securities law should jurisdiction in that area be transferred to Ottawa.

Another set of reforms focuses on tax distortions which implicitly favour debt over equity instruments, namely the deduction of interest. If it is desirable to subsidize debt because high leverage encourages more careful management decisions as Jensen (1987) argues, it should be recognized that conglomerates circumvent this. Intercorporate risk sharing in such groups allows for higher leverage without an perspective enhancing increased chance of bankruptcy. Perhaps intercorporate dividends should be taxed more vigorously and overall corporate tax rates be reduced.

Finally, changes to the political climate in which Canadian corporations operate are needed. The relatively low level of interest in the considerable concentration of economic power that was amassed in the Hees/Edper group is perplexing. It is odd that a single group was able to control over 15% of the market capitalization of the country's premier stock exchange with scarcely a hint of criticism by regulators, politicians or the press. Greater scrutiny, analysis, and possible reform of the economic and political institutions that could abide such potentially destabilizing power seems called for. However, concerns over equity should not be the issue, and specifically should not be used to thwart the creation of optimal organizational arrangements. The Hees/Edper group provides strong evidence about how strong incentive schemes can increase risk taking. It would be a pity if such incentives become infeasible because of fears that successful managers earn too much.

I. The Economics of Conglomerates

In the 1960's and 1970's conglomerates were "treated as the glamour shares of the stock market" Firth (1980). Financial markets reacted to news of diversifying acquisitions by sending acquiring firms' stock prices skyward (Matsusaka, 1993). Most large businesses are now returning to their roots. Deciding on, and concentration on "core" lines of business is the corporate world's reaction to what is now seen as excessive diversification in the 1960's and 1970's. The conglomerate merger wave of the 1960's now seems like a mania. Mob psychology infected managers and investors alike, and did untold damage to firms that otherwise would have remain healthy and prosperous.

In Defence of Conglomerates

But are these judgements too quick? There are arguments in favour of conglomerates that are not economically illiterate. Indeed, some of them are, superficially at least, reasonably persuasive.

First, Caves (1983) and Rugman (19) argue that certain intangible assets have higher returns when used on a bigger scale. These are thought to include R&D, marketing expertise, and good management. The intuition is that a new product or advertising campaign has fixed up front costs, but a return that depends on the size of the operation to which it is applied. Similarly, a good manager in charge of a big operation generates more wealth than the same good manager would produce put in charge of a small operation. The implication is that good managers should be put in charge of as large a scope and scale of operations as possible.

These arguments are a widely accepted justification for international horizontal expansion, but they would seem to have some applicability to domestic firms too. Montgomery and Wernerfelt (1988) and Panzar and Willig (1981) utilize them analogously to explain why corporate diversification and conglomerates make sense.

Second, a conglomerate structure is, to some extent, a substitute for capital markets. If capital markets were hopelessly myopic or otherwise grossly inefficient, circumventing them would be an unambiguous boon. However, the preponderance of academic work on this issue suggests that markets are not this inefficient, and those, including Keynes (1933), who do argue for such a degree of inefficiency often also argue that corporate managers are afflicted by the same mood swings that affect investors. But even in an economy with efficient capital markets, there are reasons for circumventing them. Two such reasons that dovetail into an argument in support of conglomerates are the "lemons" problem and the "free cash flow problem".

Firms with good investment projects but no spare cash flow must raise funds by issuing securities. Myers and Majluf (1984) point out that this is not costless. Firms should issue new shares when their outstanding shares are overpriced. Securities, like used cars, are difficult to value, and the buyer is always concerned there is something wrong with the product - otherwise, why is it for sale now? Investors might rationally view news of new securities issues as, at least possibly, signalling overvalued outstanding securities. Share prices do in fact fall when firms announce they are issuing more shares. Lesser analogous effects are observed for bond issues. This "lemons problem" in capital markets means firms should use a "pecking order" approach to financing new projects. They should use internal cash flow when possible, and only raise external capital when internal funds are not available and when the benefits of the new project outweigh the costs of depressing the prices of the firm's outstanding securities. By transferring funds between divisions, a conglomerate structure side-steps this entire problem. A conglomerate can act like a financial intermediary in the sense of Diamond (1991).

Jensen (1988) argues that firms in stable, low growth industries often invest in money losing projects. Firms in low growth industries with no profitable investment projects should pay their cash flows out to shareholders as dividends. But often, retaining the funds within the firm serves managers in some way. It expands the size of the firm and thus build up the managers' empires. It allows for labour peace or cements ties with politicians. This "over-investment" by cash cows is called the "free cash flow problem". Conglomerates spanning low growth cash rich industries and high growth cash starved industries neatly solve both the "free cash flow problem" and the "lemons problem" in one easy step. A conglomerate can invest internal funds in the best of all its divisions' best projects, and thus better serve shareholders.

Third, diversification reduces risk at the corporate level (Gahlon and Stover, 1979). Financial academics never tire of pointing out that diversification brings no benefits to shareholders because they could achieve the same risk reduction by holding a more diversified portfolio themselves. This argument is suspect because it assumes that diversification at the corporate level and at the individual investor's portfolio level are perfect substitutes. They are not. Reducing risk at the corporate level might allow for more credible long term commitments to workers, suppliers and customers. It might also lessen the need to forego a return on part of the firm's capital in order to maintain financial slack necessary to insure liquidity. Lower corporate level risk might also attract better workers and managers at lower wages, since a risk premium need not accompany any investment in firm-specific skills (Aron, 1988). It might also encourage managers to undertake risky corporate investments that their innate risk aversion would otherwise preclude, and thereby encourage a greater alignment of managers' interests with those of shareholders. Diversification at the corporate level may well not benefit shareholders, but the case is not as open and shut as many would believe.

Fourth, diversification reduces corporate taxes by making a more highly levered capital structure optimal. By insuring each other through intercorporate transfers of earnings, the divisions of a conglomerate lower each other's probability of defaulting on their debt relative to that of a free standing one industry firm. This makes a higher over-all leverage feasible for a conglomerate than for a portfolio of independent one industry firms. Of course, if the firm elects to lever up to take advantage of the co-insurance to increase its debt related tax deductions, this limits the risk reduction corporate diversification can provide. The benefits of lower corporate taxes to investors as a whole are mitigated by the higher personal taxes on debt, but in a world where tax-free investors like pension funds are playing an ever greater role, it is not clear that there would be a wash in securities prices in general. Moreover, shareholders are paying for bailouts they would otherwise walk away from because of the limited liability granted the owners of stock. The size of this reduction in dividends, in the absence of tax gains, would exactly compensate for the better terms the firm could get from creditors and it would be a wash. The tax deductibility of interest, but not dividends, shifts the balance in favour of diversification.

The Failure of the Conglomerate Form

The poor performance of conglomerates casts doubt on the universal validity of the arguments listed above. Berger and Ofek (1995) find a 13% to 15% discount in the values of conglomerates relative to comparable portfolios of stand alone firms. Comment and Gregg (1995) finds a positive link between firm focus increases and stock returns. John and Ofek (1995) find that asset sales improve firm performance when they also increase the firm's focus. In the 1980's, firms that announced acquisitions in their own lines of business saw their stock prices rise, while those that announced takeovers in other industries saw their stock prices decline (Morck et al, 1990). Wernerfelt and Montgomery (1988) find a "positive focus effect" in an empirical study of the determinants of firms' values. Many firms that diversified aggressively in earlier years spent the 1980's shedding unrelated operations and re-establishing their commitments to core businesses (Donaldson, 1990).

Why did conglomerates fall so far out of favour?

First, the idea that conglomerates could exploit the intangible assets of their component firms on a larger scale was always more strained than the analogous theory justifying multinationals. R&D and marketing skills are arguably much less transferable to operations in unrelated industries than they are to operations in the same industry but in another country. Thus, attention was centred on management skills as the intangible asset that would increase the values of all the assets combined into the conglomerate. Conglomerates, it was believed, had "dynamic, entrepreneurial management and that when this was injected into firms which were taken over, greatly increased efficiency and profits would ensue, which would be reflected in higher share price performance." (Firth, 1980). Management skills are now viewed as much less portable. Managers who are acknowledged experts at finding oil are no longer seen as probably having an advantage at running a brewery too. Second, even good managers can get carried away by hubris.

Second, conglomerates were seen as plagued by corporate governance problems. They were over-centralized (Baker, 1992). Many degenerated into little more than empire building. Shareholders, who would have had more influence and better information about the financial decisions being made in smaller one industry firms, were unable to monitor or discipline the managers of large complex conglomerates. Managers there thus had more opportunities to run amok. Amihud and Lev (1981) find that manager run firms are much more likely to establish diversified conglomerate structures than owner-run firms, and argue that conglomerates themselves may be a manifestation of corporate governance problems.[1] Certainly the reduced risk in a conglomerate should be attractive to

[1] A third concerns raised at the time was that conglomerates could engage in predatory pricing in one market by diverting profits from another (see eg. Bradburd, 1980; Greening, 1980). But this should increase the relative financial performance of conglomerated, not decrease it.

managers. Rose (1994) finds that managers of conglomerates have 10% to 12% higher salaries and 13% to 17% total compensation than their peers at similar sized and otherwise comparable one industry firms. However, she also finds that this premium is not related to tenure, and argues that this implies it might be due to a higher level of skill required to manage a conglomerate.

Although the gains to better use of internal funds, lower corporate risk, and higher debt capacity may be real, it appears they are largely swamped by the corporate governance problems that emerged in conglomerates.

An Amalgam of Conglomerate and Free Standing Firm?

Despite these findings, conglomerates might still be a valid corporate form, useful in some circumstances. Roe (1994) makes the case that the failure of the U.S. conglomerate, despite these potential advantages, was due (in part) to the fact that managers in conglomerates owning 100% of their subsidiaries were deprived of market signals that provided valuable feedback to managers in free standing companies. Instead, conglomerate managers received feedback through a command and control system based mainly on accounting information. Roe goes on that "an amalgam of partial control, market signalling and partial integration of finance and industry (or of different levels of Industry" might have been superior to both the conglomerate form and market disciplined free standing firms.

But in the United States, conglomerates with large numbers of partially owned subsidiaries are discouraged by the *Investment Company Act of 1940*.[2] Once the portfolio of a conglomerate there is 40% devoted to the partial ownership of other firms, the company is presumed to be an investment company and therefore must pay taxes on dividends it receives from its partially-owned subsidiaries. Since one of the basic reasons for the existence of conglomerates is their ability to reallocate capital efficiently, this is a serious barrier. The only escape is for the conglomerate to become a mutual fund, but this entails restrictions on portfolio composition and on intercompany dealings.

In Canada, the federal *Investment Companies Act*[3] does not constitute a comparable barrier to conglomerate formulation as that posed by the U.S. legislation. This act makes subjects federally incorporated companies that use debt capital to finance equity or debt investments comply with certain reporting obligations (administered by the federal financial institutions regulator -- Office of Superintendent of Financial Institutions). It also requires them to comply with restrictions on sundry related party transactions. The scope of this statute can be easily avoided through provincial incorporation or reincorporation, as there is no comparable legislative scheme in the provinces.

A more important regulatory influence on the structure and performance of Canadian conglomerates

[2] Investment Company Act of 1940 §3(1)(3), 15 U.S.C. §80a-3(a)(3) 1988. See also Roe (1994), p 260.

[3] R.S.C. 1985, c. I-22.

is federal tax legislation. In contrast to the U.S., Canada permits tax-free payment of dividends within a corporate group, thereby permitting internal capital transfers to be effected on a more tax efficient basis. However, the comparative benefits of this difference in dividend treatment should not be overstated. In contrast to the scope permitted consolidated reporting of conglomerate earnings in the United States, the Canadian tax statute does not allow consolidation. This presumably makes it more difficult for Canadian conglomerates to maximize the avoidance value of losses incurred by member corporations. Further complicating matters is the more liberal availability of the deduction for interest payments in Canada, particularly in respect of debt incurred on foreign assets. Interest deductibility provides an implicit subsidy for debt, which encourages corporate managers to use high levels of debt to finance asset acquisitions. Thus, in tandem, our cursory review of tax legislation in Canada and the United States does not supply unequivocal evidence that the size and durability of the Canadian conglomerate is necessarily related to differential taxation standards. Which effects dominate is an empirical question.

However, if one looks beyond tax policy, there are a range of distinctive regulatory policies in Canada that, while not providing targeted incentives for conglomerate formation, create scope for Canadian controlling shareholders and their appointed managers to engage in opportunistic behaviour via the conglomerate vehicle. At a general level, for instance, it is arguable that the commitment of successive Canadian governments to mercantalist industrial policies, such as the *Income Tax Act*'s foreign property rule reduced the bargaining power of Canadian shareholders when investing in securities of Canadian corporations. This rule caps the permissible level of tax favoured retirement investments at 20% of the value of the portfolio (until recently 10%). Thus, Canadian investors have fewer substitute investments to move their money to when they disagree with the policies of corporate managers. This may have allows inefficient conglomerate holding structures to survive, and pay have thereby prolonged wealth reducing redistribution from investors to Canadian corporate insiders.[4]

The same arguments could be made in the content of Canadian corporate and securities laws. Here, it is arguable that the lack of a vigorous, privately enforced securities disclosure regime in Canada reduces the transparency of internal corporate transactions to external shareholders, and heightens the attractiveness of the conglomerate form of organization to opportunistic corporate insiders.[5] Similarly, the lack of a clearly articulated corporate law fiduciary duty from majority to minority shareholders in Canada is also significant -- at least historically -- in explaining the attraction of conglomerates to opportunistic managers and shareholders (Daniels and MacIntosh, 1991). In the absence of such duties, controlling shareholders and their appointed management enjoyed much greater scope for unfair self-dealing transactions that they would if their companies were

4 These policies are canvassed more fully in Ronald Daniels and Paul Halpern, "The Role of the Closely Held Public Corporation in the Canadian Economy and the Implications for Public Policy," forthcoming, *Canadian Business Law Journal*.

5 In contrast to the United States, Canada does not have clearly articulated civil liability standards for certain disclosure documents. Moreover, the incentives for private enforcement of existing statutory and common law disclosure standards is subverted by the prohibitions on contingency fees and class actions.

incorporated in the United States.[6]

We also believe that the mercantalist industrial policies adopted by successive Canadian governments encouraged conglomerate formation. High levels of external trade protection, restrictions on the export of domestic capital, and favourable tax treatment of certain types of domestic equity investments all contributed to an inward looking industrial economy in which Canadian corporations focused on producing a broad range of goods and services for the protected Canadian market rather than on a narrow range of competitive products for the international market. In this setting, the diversified conglomerate served as a natural vehicle for achieving corporate growth.

Further supporting the formation of the conglomerate was, in sharp contrast to the United States, a more congenial political environment for the concentration of economic power. Whereas American political traditions have coalesced around a deep and abiding mistrust of concentrated economic power, the Canadian political environment has been much more sanguine. In Canada, the development and preservation of a fragile national identity easily trumped concerns over concentrated power. So to the extent that economic concentration was the inexorable result of state protectionism, Canadians regarded this as a price worth paying to promote collectivist goals (Benidickson, 1993).

Thus, Canadian laws and customs can arguably be viewed as encouraging just the sort of amalgam Roe (1994) visualizes. The largest example in recent years is the Hees/Edper group of Edward and Peter Bronfman, to which we now turn.

The Hees Edper Group

Sam Bronfman, the entrepreneur who built Seagram's into a liquor empire during Prohibition in the U.S., in 1952 informed his nephews, Edward and Peter, that his sons would inherit the family business. To provide for his nephews, he established a family trust that was eventually liquidated to yield more than C$100 million in Seagram's stock. The Edward and Peter Bronfman bucked the trend against diversification. By the early 1990's, with the help of South African financial strategist Jack Cockwell, the brothers' nest egg had grown into a corporate empire of more than 100 companies spanning industries from merchant banking to forestry. At their apex, the Bronfman companies made up 15% of the total capitalization of the Toronto Stock Exchange.

Cockwell's strategy was based on pyramids of control. A privately held company would own a controlling stake in a firm that would hold a controlling stake in another firm that would hold a

[6] The recent (and growing) receptivity of Canadian courts to imposing fiduciary duties from majority to minority shareholders under the rubric of oppression, combined with the Ontario Securities Commission's 1990 enactment of its policy on related party transactions (O.S.C. Policy 9.1), has greatly restricted the scope for majority opportunism.

controlling stake in another firm and so on. Using this strategy, control could be leveraged. The Bronfmans could fully control a firm in which they held only 51% of 51% of ... of 51% of the stock. By crossing the layers of the pyramid and liberally using restricted voting or nonvoting shares for outsiders and super-voting shares for Bronfman insiders, the equity stakes needed to exert control were further reduced.

This pyramid ownership structure meant that publicly traded rumps of stock existed throughout the group. Thus, the group's organizational structure was an amalgam of a conglomerate, with decisions coordinated in the central, privately-held companies, and public ownership, with traded stock, shareholder meetings, boards of directors financial statements, and institutional ownership

A number of the Hees-Edper companies were added to the group *via* work outs organized by the brothers' merchant bank, Hees International Bancorp Inc. A typical example is Hees's takeover of Versatile Corporation in May 1987. Versatile, a farm equipment maker, had expanded into the energy sector and, through the 1985 purchase of Davie, into ship building. By 1987 the firm was bankrupt, and Hees assumed control in a workout, eventually ending up with an equity stake of over 40%. The 1989 workout of National Business Systems, in which Hees bought $80 million of the failed firm's debt from U.S. institutional investors and assumed control is another. Critics might refer to this now as "vulture capital", but Hees was arguably acquiring an expertise in organizing the affairs of troubled firms. This falls into the category of special management skills analogous to those claimed for the managers of U.S. conglomerates in the 1960's and 1970's.

In other cases, the group expanded by acquiring major players in specific industries, such as Noranda Forests and MacMillan Bloedel. The group's real estate firms Carena Development and Bramalea, energy firm Norcen, publishing company Pagurian, etc. played dominant roles in their industries in the 1980's.

Another feature of the Hees/Edper group that merits note is the extreme incentive based compensation schemes it used to pay managers, and in some cases employees. Top managers received salaries that were low by industry standards, often in the neighbourhood of only $100,000 per year, but were allowed (and expected) to borrow up to ten times their annual salary interest free from the group to buy stock in its member firms[7]. However, anecdotal information we have obtained about the compensation arrangements that were used in one group firm, Royal Trust, reveal asymmetric sharing of risks and returns by management and shareholders, with implicit promises allegedly having been made to key managers that they would be protected from any down-side losses from leveraged equity investments, but would retain all upside gains. This system was in place for the better part of a decade. Certainly, these arrangements provided strong incentives for conglomerate managers to take risks. However, the existence of incentive based compensation does not in itself mean that agency problems in the design of these schemes were obviated.

How did the Hees Edper group take advantage of its hybrid structure? Did it reduce risk by setting up a network of co-insurance between group firms? Or did it use this co-insurance to lever up to a

[7] *Financial Post*, August 7 1990.

higher debt level and convert the risk reduction into a tax advantage? Did the publicly traded rumps of stock lead to better corporate governance than would have been the case in a pure conglomerate? We now turn to these issues by comparing various financial measures for Hees Edper group firms with those for comparable independent firms.

II. Data and Methodology

Publicly traded companies in the Hees-Edper group were identified each year using Statistics Canada's Directory of Intercorporate Ownership. The period 1988 through 1991 was selected because this period saw the group's largest extent. The specific cutoff year 1988 was used to avoid including the October 1987 crash in our stock market data. The end of our sample period just predates the real estate problems that triggered the decline of the Bronfman group.

Total debt and total assets are taken from the CD-ROM Canadian Compustat. Daily stock returns are taken from the TSE-Western CD-ROM. Companies are classified by industry using three and four digit standard industrial classification (S.I.C.) codes. Size is measures using 1990 total assets.

Each Bronfman company is matched with an independent control company in the same industry and of roughly the same size. Because of the lack of suitable controls that are not member firms of other corporate groups such as the Reichmann's, most large real estate firms and some financial firms had to be dropped from the study. This left 19 companies spanning four years, a total of 76 firm-year observations. Six firm-year observations were deleted as outliers, defined as having beta or variance estimates more than three standard errors from the mean estimates for that company or its control match, or having a debt to asset ratio greater than one. This left us with 70 firm-year observations. The distribution of our data over time is as follows: 19 observations in 1988, 19 in 1989, 17 in 1990 and 15 observations in 1991.

III. Findings

Our main results are displayed in Table 1. Tables 2 through 7 contain statistical test results that let us determine how reliable the differences between Hees/Edper firms and control firms shown in Table 1 are.

The first two rows of Table 1 give a measure of overall corporate profitability, operating income per dollar of assets, expressed as a percentage return. Hees/Edper firms have slightly worse performance by this measure than do comparable independent firms. However, these differences are not clear cut enough to pass the statistical tests shown in Table 2. Analogous tests using other accounting performance ratios yield similar results. We conclude that Hees/Edper firms are not performing better than comparable independent firms. Their performance is, at best, comparable to that of the matched control firms.

The third and fourth rows of Table 1 compare levered equity beta's for the two groups of firms. A firm's beta (β) is a standard measure of risk used by portfolio managers.[8] A high beta indicates a high risk investment, while a low beta indicates a relatively safe investment. Bronfman firms have beta's substantially higher than those of the control firms. Table 3 shows that these differences are statistically highly significant. We conclude that the stock of Bronfman firms is much riskier than that of comparable independent firms.

The fifth and sixth rows of Table 1 compare the leverage of Hees/Edper firms with those of the matched control firms. Bronfman firms have much higher financial leverage than comparable independent firms, and Table 4 shows that this difference is statistically highly significant. We conclude that Bronfman firms have taken on much higher debt loads than comparable independent firms.

In the seventh and eighth rows of Table 1, unlevered asset beta's are compared. Unlevered asset beta's are theoretical beta's that companies would have if they had no debt.[9] This risk measure is used by financial economists as a measure of the underlying risk in the firm's operations. Even after making this adjustment, Bronfman companies continue to have higher risk levels than the control firms. We conclude that Bronfman companies' higher risk is not due solely to high debt loads. Edper firms' underlying business operations seem to entail more risk than other Canadian companies of similar size in the same industries. They have higher operating leverage as well as higher financial leverage.

Missing from Table 1 are stock market performance measures. A proper analysis of stock price performance is quite involved for firms like the Hees/Edper group. Their complicated interlocking ownership structure with multiple classes of differential voting stock, some privately held, makes the standard tools of firm valuation and stock return measurement difficult to apply. We are engaged in further research in this area that involves looking at a broader range of performance measures including market value based ones.

IV. Conclusions

Our overall results support the following conclusions:

1). First, our data show no clearly superior performance in terms of average return on assets for Hees/Edper firms as opposed to comparable independent firms. This suggests that the conglomerate

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[8] Beta's here are estimated using the market model $r = \alpha + \beta\, r_M + \varepsilon$. The TSE 300 index is used as the market return r_M. A different regression is done using daily data for each firm in each year.

[9] A firm's unlevered beta, denoted β_U, is calculated as $\beta_U = \beta \times$ (value of equity/value of firm), where the value of equity over the value of the firm is approximated by one minus debt over assets. This construction understates β_U if the firm's debt is sufficiently risky that it carries a hefty risk premium. Thus, it may understate the level of risk in some Bronfman companies at some times.

form did not improve overall economic efficiency by enabling member firms to exploit each other intangible assets and thereby achieve new synergies. For example, employing superior management techniques developed at one firm to invigorate another should have produced higher performance. Therefore Canadian public policy that directly or indirectly encourages the formation of conglomerates can not be justified on the grounds of increased economies of scale or scope in applying such assets, at least in this case, or if such advantages were achieved, they were compensated by other negative factors.

2). Second, our data do not provide evidence that the Hees/Edper group allocated capital internally in ways superior to that accomplished by financial markets or financial institutions. This should also have produced evidence of better performance in group firms than in comparable independent firms. The fact that it did not casts doubt on the benefits of centralized managerial control over a diverse range of industries. Quite simply, senior Hees/Edper managers failed to confer tangible economic gains on member firms through superior capital allocation. Indeed, quite the opposite may be true. Hees/Edper management may have used a small stable of cash cows to support earlier investments in chronically underperforming firms. In this respect, the lack of vigorous market pressure may have allowed the conglomerate's management to systematically persist in maintaining irrational and idiosyncratic commitments to dog companies.

3). Third, Hees/Edper management did not use the co-insurance their conglomerate structure allowed to reduce overall risk levels in the firm. Instead, they used the group's risk sharing potential to increase overall levels of risk beyond what would have been permitted by debt markets for comparable independent firms. In part, this was accomplished through increased financial leverage, in part it appears to stem from higher operating leverage, i.e. riskier overall business practices. To the extent that Canadian business is hampered by excessive innate risk aversion on the part of Canadian managers, encouraging conglomerates may have an invigorating effect.

This line of argument is only valid if the managers of the conglomerate use the risk sharing potential of intercorporate co-insurance to justify investments that otherwise would be regarded as too speculative. The riskier management decisions made in the Hees/Edper group were facilitated by the group's conglomerate structure, but the might not have occurred without the extreme incentive-based compensation schemes Bronfman managers and employees were given. Furthermore, high relative levels of firm risk should have been accompanied by higher levels of relative returns if the risk taking was of an economically efficient sort. Perhaps the incentive based pay scheme the group used actually encouraged excessive and overly speculative risk taking.

Fourth, Hees/Edper companies were more highly levered than comparable independent firms, and this likely produced a tax advantage. The fact that this is not reflected in higher earnings casts a somewhat harsher light on the group's firms' mediocre accounting performance. Also, since the higher debt in group firms was accompanied by risk-sharing, there need be no improvement in managerial incentives of the sort Jensen (1987) envisions. Jensen essentially argues that a more imminent threat of bankruptcy encourages better management in highly levered firms like L.B.O.'s.

Thus, to the extent that the group used the increased debt capacity its intercorporate risk sharing created to avoid taxes, its social benefits are more questionable.

V. Public Policy Implications

How can public policy accentuate the desirable features of corporate groups like Hees/Edper and mitigate there undesirable features? As two of us have argued elsewhere, the strongest anecdote against the growth of seemingly perverse organizational structures is vibrant and open capital and product markets (Morck 1994, Daniels and Halpern 1994). With vigorous markets, the ability of managers and inside managers to devise and maintain inefficient organizational forms is constrained. In this respect, we believe that further relaxation of the foreign property rule, a continued liberalization of external trade barriers, and reduced protectionism of domestic capital market suppliers is mandated.

However, we believe that other policy instruments are also in order. Nuanced reforms to securities regulations that equip private investors with the ability and the incentive to prosecute alleged breaches of disclosure obligations would be useful, particularly in a setting of strained resources for public enforcement. So, too, are reforms to corporate and securities proxy rules that impair institutional shareholders' voices (such as the shareholder communication rules that require shareholders to bear the costs of a dissident proxy circular in the event of a disagreement with management) (Pound 1993). Both of these reforms would bolster the monitoring and intervention capacity of shareholders, with the result that less reliance would have to be placed on the putative superiority of internal versus external systems of capital allocation. Also, federal regulators should recognize that section 9.1 of OSC code, which forces disclosure about intercorporate transactions in such groups is critically important in preventing abuse in groups like this. It should be a key part of any federal securities law should jurisdiction in that area be transferred to Ottawa.

Another set of reforms focuses on tax distortions which implicitly favour debt over equity instruments, namely the deduction of interest. Removing the interest subsidy on debt would remove an incentive to share risk across companies in a corporate group like Hees/Edper solely to reduce corporate taxes. The effect of the change would be to reduce the desirability of strained capital structures such as those in L.B.O.'s. More broadly, such a change could also be expected to reduce the general corporate tax rate. If it is desirable to subsidize debt because high leverage encourages more careful management decisions as Jensen (1987) argues, it should be recognized that conglomerates circumvent this. Intercorporate risk sharing in such groups allows for higher leverage without an perspective enhancing increased chance of bankruptcy. Perhaps intercorporate dividends should therefore be taxed more vigorously, and overall corporate tax rates be reduced.

Finally, although more amorphous in character, we believe that changes to the political climate in which Canadian corporations operate are appropriate. The relatively low level of interest in the considerable concentration of economic power that was amassed in the Hees/Edper group is perplexing. It strikes us as odd that a single group was able to assemble control over more than 15%

of the market capitalization of the country's premier stock exchange with scarcely a hint of criticism by regulators, politicians or the press. In this respect, we would argue for greater scrutiny, analysis, and possible reform of the economic and political institutions that could abide such potentially destabilizing power. However, concerns over equity should not be used to thwart the creation of optimal organizational arrangements. Specifically, we fear that visceral concerns over vertical equity will limit the capacity of shareholders to devise workable incentive based compensation arrangements that could, in turn, spawn incentives for managers to use firm level diversification instead of explicit pay differentials to guard their firm specific human capital investments. The Hees/Edper group provides strong evidence about the ability of strong incentive schemes to increase risk taking. It would be a pity if such incentives become infeasible because of concern over successful managers earning too much.

Table 1: Univariate statistics for all variables for all firm-years studied.

variable	*sample*	*mean*	*median*	*minimum*	*maximum*	*standard deviation*
operating income over assets	Edper firms	7.11%	8.72%	-95.0%	22.54%	14.7%
	controls	7.74%	9.48%	-49.7%	25.7%	9.90%
levered equity beta	Edper firms	.694	.645	-.22	2.03	.454
	controls	.303	.043	-.048	1.35	.402
leverage	Edper firms	33.1%	32.6%	0%	70.8%	17.2%
	controls	26.3%	18.5%	0%	95.08%	24.6%
unlevered asset beta	Edper firms	.473	.436	-.129	1.74	.337
	controls	.215	.025	-.005	1.07	.293

Sample size is 70 Bronfman firm-years and 70 control firm-years, except for operating income where data are only available for 65 firm-year pairs.

Table 2: Statistical Tests comparing Operating Income per Dollar of Assets of Bronfman firms (Debt/Assets) to that of Matched Control Firms.

	mean	*median*
Bronfman Companies	7.11%	8.72%
Industry/Size-Match Companies	7.74%	9.48%
Difference between Bronfman and Matching Companies	0.63%	.100%
p-value for differences, t-test (means) Wilcoxon test (medians)	.468	.811
number of observations (firm years)	65	65

Table 3: Statistical Tests Comparing Levered Equity Beta's of Bronfman Firms with those of Matched Control Firms.

	mean	*median*
Bronfman Companies .	694	.645
Industry/Size-Match Companies	303	.043
Difference between Bronfman and Matching Companies	.391	.360
p-value for differences, t-test (means), Wilcoxon test (medians0	.0001	.0001
p-value for weighted t-test	.0001	
number of observations (firm years)	70	70

Table 4: Statistical Tests comparing Leverage in Bronfman firms (Debt/Assets) to Leverage in Matched Control Firms.

	mean	*median*
Bronfman Companies	33.1%	32.6%
Industry/Size-Match Companies	26.3%	18.5%
Difference between Bronfman and Matching Companies	6.8%	6.6%
p-value for differences, t-test (means), Wilcoxon test (medians0	.0033	.0009
number of observations (firm years)	70	70

Table 5: Statistical Tests Comparing Unlevered Asset Beta's of Bronfman Firms with those of Matched Control Firms.

	mean	*median*
Bronfman Companies	.473	.436
Industry/Size-Match Companies	.215	.025
Difference between Bronfman and Matching Companies	.259	.261
p-value for differences, t-test (means), Wilcoxon test (medians0	.0001	.0001
p-value for weighted t-test	.0001	
number of observations (firm years)	70	70

REFERENCES

Amihud, Yakov and Baruch Lev (1981) "Risk Reduction as Managerial Motive for Conglomerate Mergers." *Bell Journal of Economics*, Vol. 12(2), pp. 605-617.

Aron, Debra J. (1988) "Ability, Moral Hazard, Firm Size, and Diversification." *Rand Journal of Economics*, Vol. 19(1), pp. 72-87.

Baker, George P. (1992) "Beatrice: A Study in the Creation and Destruction of Value." *Journal of Finance*, Vol. 47(3), pp. 1081-1119.

Brenner, Menachem and David H. Downes (1979) "A Critical Evaluation of the Measurement of Conglomerate Performance Using the Capital Asset Pricing Model." *Review of Economics & Statistics*, Vol. 61(2), pp. 292-296.

Donaldson, Gordon (1990) "Voluntary Restructuring: The Case of General Mills." *Journal of Financial Economics*, Vol. 27(1), pp. 117-141.

Gahlon, James M. and Roger D. Stover (1979) "Diversification, Financial Leverage and Conglomerate Systematic Risk." *Journal of Financial & Quantitative Analysis*, Vol. 14(5), pp. 999-1013.

Matsusaki, John G. (1993) "Takeover motives during the conglomerate merger wave." *Rand Journal of Economics*, Vol. 24(3), pp. 357-379.

Montgomery, Cynthia A. and Birger Wernerfelt (1988), "Diversification, Ricardian Rents, and Tobin's q." *Rand Journal of Economics*, Vol. 19(4), pp. 623-632.

Panzar, John C., and Robert D. Williq (1981) "Economies of Scope." *American Economic Review*, Vol. 71(2), pp. 268-272.

Wernerfelt, Birger and Cynthia A. Montgomery (1988) "Tobin's q and the Importance of Focus in Firm Performance." *American Economic Review*, Vol. 78(1), pp. 246-250.