Ownership, Strategy and Performance: Is the Dichotomy Sufficient?*

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Abstract

Do ownership characteristics moderate strategy, or is ownership a strategic variable in itself? This is the research question that motivates this study. In order to shed light on this issue, Berle and Means' (1932) separation of ownership and control thesis as well as Demsetz and Lehn's (1985) symmetrical model of ownership are empirically evaluated in the Canadian context. The findings indicate that neither framework is sufficient to explain the strategic conduct and profitability of firms operating in Canada. It is suggested that a broader based approach incorporating government and foreign ownership distinctions would be more promising avenues for future research than those which solely consider Berle and Means' (1932) dichotomy.

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Introduction

Do ownership features influence firm behaviour and performance, or is ownership a long-neglected strategic variable unto itself? This research question motivates the study reported here.

Agency and property rights theorists frequently submit that managers pursue their personal agendas at the expense of shareholders. This perspective stems from the legacy of Berle and Means (1932) whose exploration of the divide between ownership and control in twentieth century corporations provided early evidence concerning the impact of ownership and control on the economic performance and strategic behaviour of organizations.

Since then, many studies grounded in Industrial Organization Economics (IO) and Finance (Cubbin and Leech 1983; Fama 1983; Fama and Jensen 1983; Jensen and Meckling 1976) as well as accounting (Hunt 1986; Bentson 1985) have examined the effects of ownership structure on the behaviour and performance of firms.

As the strategic and organizational implications of the separation of ownership and control have become more apparent, so has the attention paid to it in the field of business policy. McGee and Thomas (1986) contend that ownership characteristics matter because they affect desired rates of return, effective time-horizons for decision-making, and may influence diversification strategy.

Pondy (1969) finds that manager controlled firms are characterized by

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higher levels of administrative complexity than their owner controlled counterparts. Atkinson and Galaskiewicz (1988) report that manager controlled firms are also more generous in terms of contributions to charity. Hill and Snell (1989) find hypothesized relationships between ownership and corporate productivity, research and development, and diversification measures. Others (e.g. Salancik and Pfeffer 1980; Weisbach 1988) observe that ownership characteristics strongly influence the length of executive tenure. Porter (1980) suggests that ownership characteristics influence strategic choices made by firms by affecting desired rates of return, and the allocation of fixed costs.

These diverse streams of research from IO, financial economics and strategic management all appear to implicitly assume that the ownership characteristics of firms moderate strategic behaviour and economic performance. An alternative perspective is that ownership is in itself a strategic variable.

For instance, the growing body of research conducted using Williamson's (1975, 1985) transaction-cost paradigm implicitly assumes that the choice of ownership is the most important strategic consideration for both national, and multinational enterprises (MNE's). According to this view, firms alternatively adopt, or 'craft' a governance structure that best suits a particular exchange relationship. Traditionally, the alternative has been one of extremes—to vertically integrate, or to rely on market exchanges (i.e. to own, or not to own) (Chandler 1977). More recently, there has been considerably more attention paid to hybrid organizational arrangements between the market and wholly-owned extremes. For instance, intermediary hybrid governance structures such as licensing (Contractor 1984; Horstmann and Markusen 1987), franchising (Brickley and Dark 1987; Carney and Gedajlovic 1991) and joint-equity partnerships (Hennart 1988; Gatignon and Anderson 1988; Gomes-Casseres 1989) can be seen as distinct ownership forms in their own right.

In order to shed some additional insight on the relationship between ownership, strategy and performance, the remainder of this paper is organized in the following manner. In the following section, the evolving research agenda centring around the separation of ownership and control is discussed. In the third section a fairly recent theory of ownership provided by Demsetz and Lehn (1985) is explored. Demsetz and Lehn's findings provide the basis for generating research hypotheses concerning ownership structure and constitute benchmarks for contrasting the influence of ownership structure on the performance of firms in Canada and the United States. This is followed by a section in which data and measurement issues are addressed. Empirical results are reported in three sub-divisions of the fifth section. First, results pertaining to Demsetz and Lehn's theory of ownership are reported. Second, Berle and Mean's separation of ownership and control thesis is evaluated. In the third subsection, results relating to our effort to disentangle the effects of stock concentration from other ownership effects are reported.

cussed and related to the issue of whether ownership moderates strategy, or is a distinct type of strategic variable, and observations and suggestions for future research are offered.

The Separation of Ownership and Control

Classic notions of property rights carried over to both modern common- and civil-law divides property rights into three major categories; *Usus*, the right to use your property as you see fit, *Abusus*, the right to alter, modify, or destroy your property and *Fructus*, the entitlement to enjoy and employ the fruits from your property.

Berle and Means (1932) maintain that the rise of the modern corporation has subverted the property rights of *Usus* and *Abusus*. Corporate shareholders have become latent owners with few rights aside from their entitlement to a share of a firm's profit stream. In support of this conclusion, Berle and Means found that as early as 1930, traditional family-owned enterprises accounted for only 6 percent of the 200 largest companies in the United States, controlling only 4 percent of that nation's wealth. Similarly, Chandler (1977) chronicles the rise of managerial capitalism in the United States suggesting that as modern business enterprises grew in size and complexity, its managers became increasingly professional and separated from its ownership group. According to this view, shareholders have become a highly fragmented and dispersed constituency lacking the power and incentive to constrain managerial discretion.

Ever since Berle and Means presented their seminal thesis, it has been widely understood that the parties to this principal–agent relationship may have divergent interests. Stockholders clearly want managers to pursue profit-maximizing policies, but managers may have other personal objectives. It is typically contended that managers have a broad scope of discretion owing to imperfections in product and factor markets and the freedom from the constraint of direct shareholder monitoring. As a consequence, managers have been portrayed as pursuing growth (Baumol 1959; Chandler 1962; Marris 1964; Grabowski and Mueller 1972; Cubbin and Leech 1986), perquisite seeking (Williamson 1964; Jensen and Meckling, 1976), personal power (Simon 1945), and risk reduction (Amihud and Lev 1981) objectives instead of maximizing shareholder profit.

These divergent interests of managers and stockholders bring about problems of separation of ownership and control. Perhaps owing to its compelling face validity, the separation of ownership and control thesis has been the subject of much study. Unfortunately, empirical results concerning this important issue have been mixed and largely inconclusive (Lebleci and Feigenbaum 1986; Kaulmann 1987). Jensen (1988, 1989) and Demsetz and Lehn (1985) advance alternative agency theory reasonings which offer *prima facie* plausible explanations concerning the limitations of the separation of ownership and control.

In the tradition of Berle and Means, and borrowing heavily from Marris (1964), Jensen (1988, 1989) explains how economic developments promise to constrain the activities of managers. Jensen contends that efficient capital markets render the issue of separation of ownership and control largely irrelevant. According to this view, takeovers occur because managers act in their own interests to the detriment of shareholders, or as the consequence of the need to restructure corporate assets. This need may arise from structural changes to industries which alter the manner in which efficient business is conducted. As such, capital markets serve as a metering device on managerial performance. The implication is that the market for corporate control will punish managers who do not act in the best interests of shareholders, or do not adapt to the changing strategic requirements of doing business in a particular context.

Jensen's theory is premised on his belief that capital markets are efficient and pose effective and socially beneficial constraints on managerial discretion. This premise has been challenged on theoretical (Vickers and Yarrow 1988; Scherer 1988), empirical (Scherer 1988; Caves 1989; Mueller 1989), and normative (Shleifer and Summers 1988; Shleifer and Vishny 198; Leontiades 1989) grounds.

In a review article, Kaulmann (1987) suggests that the separation of ownership and control controversy can be surmounted on the basis of property rights theory (e.g. De Alessi 1983). Kaulmann argues that managerial behaviour at the expense of shareholders is constrained by competitive forces in multiple domains. Kaulmann cites as examples the internationalization of trade, the partial improvement in market transparency and the lowering of transaction costs owing to improvements in communication technology. The notion that competitive forces, rather than ownership characteristics *per se* effectively constrain managers also finds support in the conclusions of Porter (1980) and Borins and Boothman (1985). Further, efforts such as the coupling of managerial compensation to shareholder returns (Kaulmann 1987; Shleifer and Vishny 1988) may effectively reconcile the divergence of managerial and shareholder interests. These sorts of executive compensation packages are becoming increasingly prevalent.

An alternative agency-theory explanation of the separation of ownership and control is provided by Demsetz and Lehn (1985) who build a symmetrical model of ownership and control. According to this view, ownership structure will vary in such a manner as to maximize the value of the firm.

Demsetz and Lehn's Symmetrical Theory of Ownership

Demsetz and Lehn (1985) construct a symmetrical explicatory model of ownership based upon the costs and benefits of ownership diffusion. Given the differing objectives of managers and shareholders, they argue that the most salient cost of stock diffusion is shirking by owners. That is,

it is implicitly supposed that one of the tasks of a particular shareholder is to monitor managers and to ensure that they perform their functions in accordance with the interests of the owners of the firm. The dearth of shareholder vigilance arises because individual shareholders are able to use their time and energy on activities whose benefits accrue only to them, but whose costs are borne by the other owners of the firm in direct proportion to their share of ownership.

The more concentrated the ownership, the more the benefits and costs are borne by the same person. Under conditions of diffuse ownership, the costs associated with ownership watchfulness will be borne by the vigilant owners, but the benefits will accrue to all owners. This 'free-rider' problem suggests a negative relationship between stock diffusion and the extent of shareholder monitoring.

Demsetz and Lehn contend that unless '*counterbalancing advantages*' exist, one would expect that all firms would be marked by highly concentrated ownership structures. They suggest that as diffuse ownership exists and persists in many firms, there must be some benefits to the multitude of ownership structures observed. Demsetz and Lehn hypothesize and find a negative relationship between firm size and stock concentration. They interpret this association by alleging that *ceteris paribus*, a given proportion of ownership becomes more costly as the market value of the firm (i.e. its size) increases. Moreover, a particular level of control usually requires the retention of a smaller proportion of ownership in larger firms.

Principles of risk aversion suggest that owners will only be willing to commit a greater proportion of their personal wealth to a single organization if they can purchase shares at lower risk-adjusted prices. This has the effect of increasing the firm's cost of capital. As a firm grows larger, the monitoring benefits of stock concentration are approached and eventually surpassed by expenses associated with the higher cost of capital needed to compensate shareholders for their assumption of greater levels of personal risk.

Hypothesis 1: There is a negative relationship between organizational size and its degree of stock concentration.

Demsetz and Lehn's findings indicate a positive association between environmental instability and stock concentration. They explain this result in terms of the '*control potential*' of a firm. Demsetz and Lehn contend that managerial behaviour in firms operating in uncertain environments simultaneously '*figures more prominently in a firm's fortunes and becomes more difficult to monitor*' (p. 1159).

It is suggested that managerial activities in firms operating in stable contexts can be monitored and controlled at a relatively low cost. At the same time, the dynamic nature of the environment presents a problem for shareholders in that it makes it difficult to ascertain whether poor performance is the result of managerial activities, or due to circumstances outside managerial control (Alchian and Demsetz 1972). Demsetz and Lehn comment,

'Disentangling the effects of managerial behaviour on firm performance from the corresponding effects of these other, largely exogenous factors is costly, however . . . . Noisier environments should give rise to more concentrated ownership structures.' (p. 1159)

Demsetz and Lehn's suggestion that the monitoring of managers is more problematic in 'noisy' environments suggests that,

Hypothesis 2: Firms based in resource-dependent industries have higher levels of stock concentration than other firms.

In comparison, managers of diversified firms may be easier to monitor because market composites such as the S&P 500 are obvious benchmarks against which shareholders may evaluate these portfolio managers. As a consequence, the monitoring advantages of stock concentration may not be as important in highly diversified firms.

Hypothesis 3: Firms which are highly diversified have less stock concentration than less diversified firms.

Demsetz and Lehn conjecture that government regulation has an attenuating effect on stock concentration. It is maintained that regulation provides a form of subsidized monitoring for owners. In this manner, government regulations can be viewed as parameters which bound the activities of managers. In some cases, regulations may constrain managerial activities which have an adverse effect on shareholder wealth. For instance, the financial health of banks is closely monitored by government agencies. Similarly, utilities and firms in the transportation and communication sectors are bound by extensive government regulation.

Hypothesis 4: Firms operating in industries marked by extensive government regulation have lower levels of stock concentration than other firms.

Certain high profile, prestigious organizations must be considered as special cases. Demsetz and Lehn contend that owners of these firms derive some non-pecuniary consumption benefits from their association with the organization. The most notable examples of these sorts of firms are sports franchises. It is supposed that individuals such as George Steinbrenner (the once-exiled owner of the New York Yankees), the late Harold Ballard (the Toronto Maple Leafs, and Hamilton Tiger Cats), Donald Trump (Casinos) and Ted Turner (Atlanta Braves, CNN, TNT, 'Super-Station TBS') derive some non-pecuniary psychic benefits associated with their majority equity position in these high-profile organizations. Similarly, it is supposed that firms within the realm of mass media have similar affinity potential.

Hypothesis 5: High-profile, media-related organizations (e.g. newspapers, radio stations, television stations) have higher levels of ownership concentration than other firms.

Finally, according to the Berle and Means' (1932) thesis, stock diffusion modifies the link between ownership and control by rendering the owners powerless to constrain the actions of professional management. The interests of the owners are clearly related to the maximization of shareholder profit. However, managers may have other personal objectives

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that may not be in the best interest of shareholders. Demsetz and Lehn (1985) and modern property-rights theorists (e.g. De Alessi 1983; Kaulmann 1987) take an opposite view. They argue that ownership structure will vary in such a manner as to maximize the value of the firm. As such, there should be no relationship between ownership structure and firm performance.

Hypothesis 6A: (from Berle and Means) *Stock concentration and organization performance are positively related.*

Hypothesis 6B: (from Demsetz and Lehn) *Stock concentration and organization performance are unrelated.*

Data and Measurement

The data employed in this study were gleaned from *The 1989 Financial Post* ranking of the largest 500 non-financial businesses operating in Canada. The French-language business magazine *Commerce* was used as a complementary source in order to assess the reliability of the primary data source and for the purpose of classifying the organizations into industrial groups. After evaluation, 126 firms from the *Financial Post* survey were excluded from subsequent analysis due to insufficient data. The remaining 374 firms constitute the reference group for the analysis that follows.

Concentration

It is often difficult to ascertain the threshold level of stock concentration necessary to influence corporate decisions. As a consequence, like Demsetz and Lehn, this study treats effective control as a continuous function of stock concentration rather than dichotomizing the measure into a manager/owner-controlled nominal variable. Stock concentration (CONCEN) in this study is measured by the percentage of common stock ownership held by the largest stockholder.

Performance Measures

Three performance measures are employed as criterion variables in order to tap various aspects of the organizational performance construct. Return on invested capital (ROIC) is included as a measure of investor satisfaction. Profit margins (MARGIN) embody the relative cost and revenue structures of an organization. Return on assets (ROA) is a commonly used indicator of management's ability to use assets efficiently.

RISK: is an indicator variable showing whether a particular firm does business in a resource-based industry (i.e. Agriculture, Oil and Gas, Pipe Lines, Mines and Metals). It is used as a proxy for profit instability.

A number of highly influential studies have found that industry characteristics are more closely associated with profitability than firm-specific factors (Schmalensee 1985; Wernerfelt and Montgomery 1988; Mueller

1990; Shapiro and Khemani 1990). The findings of Shapiro and Khemani (1990) are especially relevant here since their study examined Canadian firms drawn from a number of resource-based industries. Collectively, these studies strongly suggest that the variability of a firm's profits should closely parallel industry profit rates.

CONGLOM: is an indicator variable representing whether a firm is classified by *Commerce* magazine as a conglomerate.

REGULATE: is an indicator variable specifying whether the firm operates in an industry that is significantly affected by government regulation (i.e. Transportation, Telecommunications, Utilities).

AFFINITY: is a dummy variable indicating that the firm in question is a high-profile, media-related concern (i.e. in the communications sector).

TURN: is a measure of asset turnover (i.e. total revenue stated as a percentage of assets). This variable is used as a proxy for the relative labour/capital intensity of an organization.

LASSETS: The net asset base of an organization, used as a measure of firm size. Usually, the logarithmic argument is best applied for this purpose.

DEBTEQ: The ratio of debt to equity. It is employed as a control for financial risk and leverage in profitability estimates.

AMER and FORN: Are indicator variables representing whether a firm's major shareholder is U.S. based (AMER), or situated elsewhere, outside Canada (FORN). Previous research indicates that there must be a control allowing for the presence of multinational enterprises, when considering stock concentration. Gatignon and Anderson (1988) and Gomes-Casseres (1989) found that U.S. multinationals preferred to maintain a wholly-owned equity position in their foreign-based subsidiaries.

GOVT: is a dummy variable indicating that the major shareholder of the organization in question is the federal government of Canada (or one of its institutions), a provincial government, or a municipal institution.

INDUSTRY INDICATOR VARIABLES: The 374 organizations included in the study were grouped into 24 industry categories based upon the classifications of *Commerce* magazine. Twenty-three industry-indicator variables are employed in some models in order to control for industry-specific effects on profitability.

Empirical Results

In order to evaluate the six hypotheses described above three ordinary least squares (OLS) regression models were employed. The first model relates stock concentration to nine predictor variables. This model is essentially a Canadian replication of Demsetz and Lehn's U.S. study. The next two regression models represent OLS estimates of Return on Invested Capital (ROIC); an accounting-based measure of profitability.

The initial estimate of ROIC includes eight predictor variables. The third model includes the same predictors, but adds 23 industry dummy variables so as to control for industry effects.

Evaluating the Demsetz and Lehn Thesis in Canada

OLS estimates of stock concentration, controlling for government and foreign ownership are presented in Table 1. The decision to control for these firms was vindicated by the highly significant (i.e. $p. < .01$) coeffi-

Table 1
Regression Results:[a] Stock Concentration[b]

Predictor Variable	Hypothesized Relationship	Regression Coefficient
ASSETS[c]	(–)	–.283*** (–2.77)[d]
RISK	(+)	–1.253*** (–2.92)
CONGLOM	(–)	–.076 (–.157)
REGULATE	(–)	–.241 (–.372)
AFFINITY	(+)	.778 (1.11)
TURN		–.061 (–.498)
AMER		.666*** (12.908)
FORN		2.99*** (7.452)
GOVT		5.86*** (6.680)
Intercept		1.44* (1.96)
R^2		.57
F-Statistic		29.99***

[a] Standard regression assumptions are made in this and all other models. A variety of residual statistics were examined to test for heteroscedasticity and deviations from normality. Studentized and Jackknife residuals, as well as leverage and Cook's D statistics were employed in eliminating outliers. Multi-collinearity was tested for, and not considered material.

[b] log (percentage concentration/100 – percentage concentration)
As a dependent variable, the logistic transformation listed above is employed to transform an otherwise bounded dependent variable (i.e. stock concentration by definition will range between 0 per cent and 100 per cent), into an unbounded measure. This prevents ordinary least square (OLS) estimates of concentration below 0 per cent, or greater than 100 per cent. In order to permit this transformation, companies who had very diffused ownership (i.e. their largest shareholder controlled less than 1 per cent of voting equity) were recoded with stock concentration = 1 per cent. Companies with a single owner were recoded with stock concentration = 99 per cent.

[c] The logarithmic argument of ASSETS was employed.

[d] Note T-statistics are in parentheses.

* $p < .1$
** $p < .05$
*** $p < .01$

cients of these estimates. The overall model is significant at the $p. < .01$ level. The model's R^2 of .57 suggests that it has substantially greater explicatory power than that obtained by Demsetz and Lehn (.33).

The findings associated with this model cast considerable doubt on the assertion of Demsetz and Lehn (1985) that the ownership structure of firms varies systematically in a manner consistent with value maximization. Of the five hypotheses gleaned and tested from Demsetz and Lehn's U.S. study, only Hypothesis 1 (i.e. a conjectured negative relationship between size and stock concentration) proved to be statistically significant.

Hypothesis 2, a conjectured positive relationship between stock concentration and profit instability (measured by resource dependency) was clearly repudiated. In fact, a statistically significant negative relationship was found between stock concentration and profit instability. One possible explanation for this reversal of Demsetz and Lehn's finding is that investors choose to lessen their risk exposure, rather than increasing their stock holdings in order to facilitate monitoring in resource-based industries.

Further, Demsetz and Lehn's model appears to suggest that highly diversified firms will be marked by lower levels of stock concentration (Hypothesiss 3). No statistically significant relationship was found between conglomerate diversification and stock concentration.

According to Hypothesis 4, a negative association between stock concentration and government regulation is expected. No statistically significant relationship was found between a firm's regulatory environment and it's level of stock concentration. Evidently, shareholders do not act as if they consider governmental regulation a form of subsidized monitoring as Demsetz and Lehn suggest. Also, Demsetz and Lehn's supposition that firms with affinity potential will be marked by higher levels of stock concentration (Hypothesis 5) was not substantiated. High-profile organizations may have substantial affinity potential, but this appeal does not translate into more concentrated ownership structures.

Evaluating the Berle and Means Thesis

Table 2 represents OLS estimates of the four performance measures described above. These models serve as a basis for evaluating Hypothesis 6A, an expected positive relationship between stock concentration and organizational performance. This first series of regression models seems to substantiate Berle and Means' separation of ownership and control thesis. Controlling for financial leverage, relative capital/labour intensity and organizational size, the expected positive association between stock concentration and performance is found in two out of three models. Stock concentration appears to be positively and significantly associated with returns on invested capital and assets.

However, given stock concentration results (Table 1), these preliminary findings were viewed with considerable caution. Since stock concentra-

Table 2
Regression Results Controlling for Size, Capital Intensity and Leverage

Predictor Variables	Criterion Variables ROIC[a]	ROA[a]	MARGIN[a]
DEBTEQ	−.01*** (−3.53)[b]	−.002*** (−4.62)	−.002*** (−5.02)
TURN	.01* (1.93)	.003*** (3.43)	−.002*** (−2.57)
ASSETS[a]	−.02* (−1.78)	−.001 (−.10)	.01*** (4.96)
CONCEN	8.77E−04* (1.94)	1.04E−04* (1.60)	−1.84E−05 (−.28)
Intercept	1.24*** (14.76)	.047*** (3.81)	.005 (.40)
Adjusted R^2	.08	.09	.15
F-Statistic	7.85***	10.20***	17.21***

[a] The logarithmic argument of ASSETS, ROIC, ROA, and MARGIN are employed as a statistical device to deal with the possibility of homoscedasticity.
[b] Note T-statistics are in parentheses.
* $p < .1$ ** $p < .05$ *** $p < .01$

Table 3
Regression Results Controlling for Government/ Foreign Ownership and Industry Effects

Predictor Variables	Criterion Variables ROIC[a]		ROA[a]		MARGIN[a]	
DEBTEQ	−.01*** (−3.55)[b]	−.01*** (−3.02)	−.002*** (−4.74)	−.002*** (−4.18)	−.002*** (−4.79)	−.002*** (−5.21)
TURN	.01** (2.02)	.02*** (3.01)	.003*** (3.53)	.003*** (4.45)	−.002*** (−2.76)	−.001 (−1.54)
ASSETS	−.01 (1.17)	−.001 (+.10)	7.6E−4 (.43)	.001 (.66)	.008*** (4.44)	.007*** (3.81)
CONCEN	5.4E−4 (.95)	3.0E−4 (.51)	−2.9E−6 (.04)	3.4E−05 (.42)	−1.3E−4 (−1.52)	−7.5E−5 (.89)
AMER	.09* (1.95)	.10** (2.05)	.02*** (3.65)	.02*** (2.75)	−.014** (2.06)	.014** (2.04)
FORN	.04 (.70)	.03 (.61)	.006 (.85)	−.001 (−.17)	.005 (.62)	−.001 (.13)
GOVT	−.14** (−2.05)	−.10 (−1.34)	−.02* (−1.95)	−.02* (−1.75)	.015 (1.56)	.008 (.73)
Intercept	1.20*** (13.93)	.99*** (6.45)	.04*** (3.41)	4.78*** (30.08)	.011 (.85)	.011 (.52)
Adjusted R^2	.10	.18	.15	.23	.16	.25
F-Statistic	6.46***	3.49***	9.95***	4.74***	10.62***	5.01

[a] The logarithmic argument of ASSETS, ROIC, ROA, and MARGIN are employed as a statistical device to deal with the possibility of homoscedasticity.
[b] Note T-statistics are in parentheses.
* $p < .1$ ** $p < .05$ *** $p < .01$

tion is strongly and positively associated with state and foreign ownership, true stock concentration effects must be delineated from other ownership effects before any confidence can be placed in these findings.

In order to control for this possible confounding factor, subsequent regression models were estimated controlling for government and foreign ownership effects. By including government and foreign ownership indicator variables, a broader based representation of ownership–performance dynamics is obtained. Moreover, this approach enables us to partition and assess the significance of stock concentration, foreign, and governmental ownership effects simultaneously. In these models, private-sector, domestically-owned firms constitute the baseline against which these effects are evaluated.

Industry effects present another potential obscuring factor. Capital requirements and environmental conditions vary greatly from industry to industry. In order to control for industry effects, so as to provide a more meaningful basis for assessing the significance of ownership effects, the organizations included in the study were grouped into 24 industry categories based upon the classifications of *Commerce* magazine. Twenty-three industry-indicator variables are employed in regression estimates of performance in order to control for, and assess, the importance of industry-specific effects on organizational performance.

In Table 3, two regression models are presented for each of the three performance measures studied. The first model controls for the effects of foreign and state ownership (AMER, FORN, GOVT). The second model controls for these same factors, as well as industry effects.

The result reported in Table 3 suggests the existence of serious limitations to the separation of ownership and control thesis. When the effects of foreign and governmental ownership, and their characteristic high levels of ownership concentration are controlled for, the importance of stock concentration alone fades in importance. Stock concentration is no longer significantly associated with returns on investments, or assets.

The results of these models reveal an interesting relationship between government ownership and organizational performance. State ownership is negatively, and significantly, related to the efficient use of assets (ROA). Surprisingly, public enterprises' lower levels of efficiency do not translate into lower profit margins. These somewhat counter-intuitive findings conform to the premise that state-owned enterprises may operate in low-return industries for non-economic, public-policy purposes such as acting as an agent for economic development, or to provide employment (Hafsi, Kiggundu, and Jorgensen 1987). In such contexts, lower levels of operating efficiency do not adversely affect organizational profitability.

Another interesting finding is associated with the observed relationship between performance and foreign ownership. Subsidiaries of U.S. multinational enterprises (MNE's) are better performers in terms of investor returns, return on assets and profit margins than either Canadian-owned firms, or the subsidiaries of other multinationals.

Disentangling Stock Concentration From Other Ownership Effects

Two distinct, but not mutually exclusive, plausible explanations can be offered for the higher performance levels of U.S. multinationals. These findings are consistent with argumentation which suggests that MNE's enter foreign markets in order to exploit proprietary assets such as brand name, process technology, patents, or managerial know-how developed in their home country (e.g. Vernon 1966; Porter 1990). These authors suggest that the nature of the MNE's home environment (particularly its size) is highly relevant with respect to the development of exportable proprietary assets.

Another plausible explanation is that ownership concentration influences performance levels of some firms, but not others. In order to assess whether the effects of ownership concentration vary between classes of firms, four ownership* stock-concentration-interaction terms representing the stock concentration of Canadian (CANCON), U.S. (AMERCON), foreign (FORCON) and state- (GOVCON) owned firms were calculated and included as predictors in regression estimates of ROIC, ROA and MARGIN (Table 4).

Table 4 Regression Results: Ownership Concentration, Performance and Nationality[a]

Predictor Variables	Criterion Variables ROIC	ROA	MARGIN
DEBTEQ	−.009*** (−2.86)[b]	−.002*** (−3.97)	−.002*** (−5.04)
TURN	.015*** (2.89)	.003*** (4.38)	−.001 (−1.55)
ASSETS	−.001 (.08)	.001 (.56)	.007*** (3.83)
AMCON	.001** (2.44)	2.3E−4*** (3.07)	8.3E−5 (1.09)
FORCON	7.8E−4 (1.07)	−1.6E−5 (−.16)	−6.12 (−.60)
GOVCON	−7.4E−4 (−.91)	−1.5E−4 (−1.34)	−3.9E−5 (−.34)
CANCON	3.1E−5 (.044)	1.3E−5 (.128)	−1.1E−4 (−1.06)
Intercept	1.02*** (6.56)	.035 (1.61)	.013 (.61)
Adjusted R^2	.18	.23	.25
F-Statistic	3.46***	4.69***	5.08***

[a] Industry effects remain controlled for.
[b] Note T-statistics are in parentheses.
* $p < .1$ ** $p < .05$ *** $p < .01$

These regression results suggest quite clearly that ownership concentration is unrelated to the performance of public- and private-sector Canadian firms as well as foreign multinationals. In striking contrast, ownership concentration exhibits a strong positive relationship with ROIC and ROA measures in the case of U.S. multinationals.

Not only do U.S. multinationals enjoy higher levels of performance, but they also exhibit a unique positive relationship between ownership structure and economic performance.

Transaction-cost reasoning (e.g. Dunning 1980; Teece 1986; Gatignon and Anderson 1988; Gomes-Casseres 1989) suggests that MNE's will prefer to be sole owners, rather than to enter into joint-equity partnerships in order to safeguard their proprietary assets. This preference of U.S. MNE's may be accentuated in Canada because of cultural similarities and the contiguous nature of the two countries (Davidson 1980). This transactions-cost scenario is generally consistent with the observed strong positive association between the ownership concentration of U.S. multinationals and their financial performance. Further, such a tendency can be expected to increase due to the recently ratified U.S.–Canada free-trade agreement.

Conclusions

Ownership does matter, but not in the manner suggested by Berle and Means' seminal thesis. The results presented here cast doubt on the generalizability of both Demsetz and Lehn's U.S. findings and the materiality of the separation of ownership and control dichotomy. In this regard, Canada may be a more logical basis for making trans-national generalizations concerning ownership structure and performance than the United States in which private-sector, domestically-based firms dominate. Canada, like most other industrialized countries is characterized by its mixed economy and is profoundly shaped by public-sector and foreign-owned enterprises.

The control of business assets, and the generation of revenue by ownership class in Canada (Table 5) is radically different from that envisaged by Berle and Means in the 1930s. Only 53.6 percent of the assets of companies examined in this study are controlled by private-sector, Canadian-owned firms. Of the remainder, 24.1 percent of the assets are controlled by the public sector, 16.4 percent by U.S.-based firms and 5.9 percent by other foreign firms. When revenues are broken down by ownership class, the far-reaching influence of MNE's in Canada is even more apparent. Of all revenues, 35.9 percent are generated by foreign-owned subsidiaries.

Berle and Means premised their separation ownership and control thesis on the wide, and growing dispersion of ownership. In the United States, this trend has continued unabated throughout the twentieth century. However, this tendency towards dispersion has not transcended the 49th

Table 5
Control of Assets and Revenues By Ownership Status (in %)

	Assets	Revenues
Private sector–Canadian controlled	53.6	55.0
Public sector–Canadian controlled	24.1	9.1
Total Canadian controlled	77.7	64.1
American controlled	16.4	26.9
Other foreign controlled	5.9	9.0
Total foreign controlled	22.3	35.9
Total	100.0	100.0

parallel. In contrast to the diffuse, but relatively homogenous, ownership structure of U.S. enterprises, mixed economies, such as Canada's, are marked by the more concentrated and heterogeneous ownership of firms.

Additional country-specific studies are warranted to assess the generalizability of the findings reported here to other countries. Also, cross-national studies may be able to shed some light on the reasons underlying any inter-country differences. Clearly, owing to a diversity of resource attributes (Vernon 1966; Porter 1990) and cultural, historical, legal and political forces (Wildavsky 1987; Hamilton and Biggart 1988), nations differ widely in terms of the organizational arrangements that come to dominate their economies. Perhaps many of these same factors may be of use in explaining inter and intra country differences in firm behaviour and performance.

Our research findings confirm the importance of ownership structure on the performance of organizations, but also highlight the limitations of dualistic lines of inquiry. Stock concentration is positively associated with organizational performance, but concentrated ownership structures are also the hallmark of governmental enterprises and foreign subsidiaries. When the presence of such firms is controlled for, stock-concentration effects can be delineated from other ownership effects. Though ownership concentration was found to be positively associated with the financial performance of U.S. multinationals, this relationship did not hold for any other class of organization operating in Canada.

Of particular note, numerous accounting professionals (academics and practitioners) were consulted regarding whether there is any particular reason why U.S. firms might systematically be profit-shifting, or whether tax, or other regulations might be impacting upon our results. To our knowledge, there is no material explanation of why U.S. firms, in particular, might be pursuing these sorts of policies. As such, the profitability differences reported here can be interpreted with confidence insofar as they reflect true performance differences rather than systematic differences in accounting practices and conventions.

Contrary to *ex ante* expectations, the most salient conclusions of this study relate to the impact of foreign and government ownership on the financial performance of Canadian firms. The influence of these organiza-

tions is not adequately captured in a simple separation of ownership and control framework.

Perhaps as a product of their non-economic objectives, public-sector firms tend to operate in low-return industries. In these settings, lower levels of operating efficiency do not impact upon their profitability. Public-sector firms are found to be no more or less profitable, than their industry cohorts. These results are particularly intriguing insofar as they diverge from both conventional wisdom and some property-rights research (e.g. Boardman and Vining 1989). As such, further research appears warranted on at least two fronts.

First, this study's focus was on the performance implications of ownership structure among Canadian firms. Further research is required to ascertain the extent to which this study's unique findings regarding public-sector ownership and financial performance are generalizable to other national contexts.

Second, the finding that public-sector firms are no less profitable than their private-sector counterparts, once industry effects are controlled for, suggests that ownership structure may influence both 'domain definition' and 'domain navigation' (Bourgeois 1980) aspects of corporate strategy. Previous research has focused almost exclusively on issues of domain navigation, or the competitive decisions which are made by firms within particular industries, or task environments (Thompson 1967). Considerably less attention has been focused on domain-selection issues which involve an organization's choice of industry and task environment. The findings reported here suggest that future research needs to account for the possibility that ownership structure impacts upon both definition and selection issues.

Insofar as foreign firms are concerned, a partial explanation of their concentrated ownership structures and the higher performance levels of U.S. firms is provided by transaction-cost economics. Their ownership strategy of full, or majority, ownership can be viewed as a design to safeguard proprietary assets. The superior performance of U.S. MNE's may be explained in terms of the nature of their home environment which, by virtue of its size, is conducive to the development of exportable proprietary assets with substantial economic rents.

In this regard, the causal nature of the observed positive association between stock concentration and performance among U.S. firms is unclear. It is possible that the tighter control features of more concentrated ownership are at work here. If this is true, the issue of why concentrated ownership benefits U.S. MNE's, but not other classes of firms, is an open question begging for an explanation.

An alternative explanation is that firms develop proprietary assets in their home countries which they wish to capitalize upon in foreign markets. Following this line of reasoning, the scale of U.S. markets make them fertile spawning grounds for the development of proprietary assets of substantial value abroad. Further, firms with the most valuable proprietary assets will deliberately choose, as a strategy, to retain tight control

over foreign subsidiaries in order to protect and appropriate the full value of these assets (Teece 1981).

This explanation may satisfactorily explain the superior performance of U.S. firms, but still does not account for why tightness of control is positively related to performance only in the case of U.S. MNE's. Presumably MNE's of other nationalities develop, and wish to safeguard proprietary assets of substantial worth as well. Why is tightness of control not positively related to profitability in their case? Perhaps the cultural similarities, and the close proximity of the United States and Canada offers an explanation (Davidson 1980). This line of argumentation suggests that, *ceteris paribus*, U.S. firms operating in Canada are less in need of entering into equity partnerships with domestic interests, because of the similarities of the two countries. This explanation can be brought into question on several counts. First, while the United States and Canada share many cultural similarities, in many respects, such as its mixed economy and social programmes, Canada more closely resembles the industrialized democracies of Western Europe. Nowhere is this more true than in French Canada which accounts for roughly one quarter of Canada's total population.

Second, if cultural similarity differences account for differences in the ownership strategies and performance of U.S. and other foreign MNE's operating in Canada, we would expect the net advantage of U.S. firms to diminish over time as a consequence of learning effects. This does not appear to be the case. The observed relationship appears to be persistent over time. Shapiro's (1980) results concerning the determinants of profitability of firms operating in Canada during the 1968–1972 period are entirely consistent with the findings of this study; U.S. firms were more profitable than all other firms operating in Canada, and in the case of U.S. firms exclusively, stock concentration was positively related to the financial performance.

Both the separation of ownership and control and the proprietary asset explanations appear at best qualifiable explanations of the relationship between ownership and performance. Their implications for researchers, however, are inherently different. Implicit in the separation-of-ownership-and-control thesis is the premise that ownership structure has a moderating influence on organizational strategy. That is, ownership characteristics affect firm performance by shaping the effective time-horizon for decision-making, and by inhibiting or facilitating managerial discretion.

Inherent in the proprietary asset explanation is the belief that ownership is, in itself, a strategic variable. Firms will adopt a particular ownership structure for strategic purposes. For instance, foreign MNE's may adopt strategies of concentrated ownership in order to facilitate the protection of their proprietary assets. State ownership is frequently used in low-profit industries as a means of achieving a variety of non-economic, public-policy objectives. Similarly, the growing number of firms that use franchising as a form of tapered integration seem to be

treating ownership as a strategic rather than a moderating variable.

Does ownership shape strategy, or is it a long overlooked strategic variable in itself? Further research is required to gain a better understanding of the relationship between ownership, strategy and performance, particularly in the context of mixed economies with heterogeneous ownership groups. To this end, a broader based approach incorporating multiple-ownership distinctions seems more promising than those which solely consider dualities such as Berle and Means' owner/manager controlled dichotomy.

In this regard, the growing institutional stake and activism in many of the largest North American and Western European companies (Drucker 1988) appears to be a phenomenon that merits closer scrutiny. In contrast to the passivity of institutional investors in the past, pension-fund managers are influencing corporate decisions as never before. In the United States, pension contributions constitute the largest single source of financing for many leveraged-buy-out (LBO) funds (*Business Week* 1989). Pension funds also figure prominently in the many employee stock-option plans (ESOP's) which are increasingly being used to defend corporations against hostile takeovers. These sorts of developments clearly warrant further study.

The results of this study suggest the existence of an intriguing conundrum regarding the ownership structure of U.S. parent corporations and their subsidiaries. On the one hand, most U.S. multinational parent corporations are 'manager controlled'. Indeed, Chandler (1977) refers to the U.S. economy as the 'seed-bed' of managerial capitalism. As a consequence, the effects of Berle and Mean's separation of ownership and control should be most strongly felt amongst U.S. firms. On the other hand, this study and Shapiro (1980) have reported results which suggest that the foreign subsidiaries of these predominantly manager-controlled firms are more profitable than both their domestic and MNE competitors.

The implications of this conundrum are not altogether clear. Do these results imply that the separation of ownership and control is largely irrelevant as Demsetz and Lehn and property-rights theorists suggest or do they imply that MNE's manage their foreign subsidiaries differently than their domestic operations? Further, what factor is most likely to influence subsidiary behaviour and performance? The ownership structure of the parent? The ownership structure of the subsidiary? The interaction of both ownership structures; or does ownership in the stock-concentration sense matter at all? These largely unanswered questions suggest that much further research is required on the relationship between ownership characteristics, strategy and economic performance.

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