The University of Manitoba

CORPORATE ANNUAL REPORTS: THEIR OBJECTIVES AND UTILITY -- AN EMPIRICAL STUDY

by

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ABSTRACT

Corporate financial reports are often criticized for failing to provide users with information that they can rely on as a consistent measure of corporate performance and progress. The study was undertaken to answer the question: To what extent is the information requisite to evaluation of corporate economic performance disclosed in corporate annual reports? Procedures were designed to first survey the informational needs of the primary group of report users--shareholders and investors--and, second, to determine the extent to which the requirements of the users were met by published annual reports.

Due to the size of the shareholder group, direct assessment of their needs was deemed to be impracticable. Professional securities analysts, however, comprise a group whose interests and needs are closely aligned with those of the individual investor. The selection of Chartered Financial Analysts as surrogates for the individual investors rested largely on their competence as users of annual reports, and their knowledge of the accounting principles and practices involved in the preparation of financial reports. If the needs of the most sophisticated of report users can be met it is likely that other investors

shall be provided with at least as much information as they can effectively utilize.

To determine the items of information that CFA's consider useful to their analyses, a questionnaire was prepared which encompassed the major items of information presently disclosed in annual reports as well as items that have been seriously suggested in the current literature for disclosure.

Analysis of returned questionnaires indicated that the CFA's desired virtually all of the items presented for their consideration. The only items not considered useful concerned: extension of the auditor's opinion to include such items as the financial highlights, presentation of budgetary data, and the definition of "Funds" as other than working capital.

To determine the extent to which the desires of the analysts were being met by current practice, a random sample of fifty corporations was drawn from the Financial Post "Top 100 Club". The 1971 annual reports of the firms selected were then analyzed to determine the percentage of the firms disclosing each of the items of information deemed useful by the CFA's. Only rarely was the proportion of firms disclosing an item of information greater than the proportion of the CFA's who considered the item useful.

Comparison with an independent study of 100 U.S. corporations suggested that Canadian disclosure was less deficient than was the American disclosure. Of twenty-seven instances in which the difference was of statistical significance, Canadian disclosure was the more complete in eighteen of the twenty-seven instances.

Disclosure of income statement information was materially less extensive than was disclosure of balance sheet items. This was particularly true of the sales and cost of goods sold sections where a total of seventeen items were ranked by the CFA's as desirable, and only three of the seventeen were disclosed by more than 20 per cent of the firms, while six of the items were not disclosed by any firm surveyed. Of all items of information deemed useful by the CFA's one in three was disclosed by less than 50 per cent of the firms surveyed. This evidence supports the conclusion that the informational needs of shareholders and investors as indicated by their representatives--Chartered Financial Analysts--are not being met by current annual reports.

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CHAPTER 1

INTRODUCTION

Corporate annual reports have been criticized both for the quantity and for the quality of the financial information they contain. Specific criticisms concern the technical terminology employed, their highly condensed format, and the often inadequate explanation given of potentially significant transactions and events. Most generally--and most seriously--it is charged that annual reports fail to communicate, that they do not perform their stated function of conveying information regarding the firm to the reader of the report.

Purpose of Financial Statements

To be effective, financial reporting must be informative. Corporate annual reports should provide relevant and useful information that will facilitate decision making.

> . . . The function of external reports is purely and simply to reflect the economic accomplishments of the reporting firms. . . . Measurements of income and wealth position for any period less than the life of the firm are certain to be arbitrary, but the penalty for imprecise measurement is poor resource allocation in the economy. If, as many believe,

> financial statements do provide a large part of the most significant information for the decision makers who decide to put assets into one sector of the economy or another, there exists an imperative need for realistic accounting reports.[1]

The committee of the American Accounting Association which produced the report, *A Statement of Basic Accounting Theory*, defined accounting as ". . .the process of identifying, measuring and communicating economic information to permit informed judgements and decisions by the users of the information".[2] If an economic society is to function effectively, it is important that financial information be presented in a timely and meaningful fashion--that it be a reliable and adequate measure of performance.[3]

Prior to the nineteenth century there was little need for financial reporting as it is known today. Records were kept for and submitted to the individual entrepreneur. Few if any outsiders had need of, or interest in, financial information regarding the enterprise.[4]

Introduction of the corporate form of business

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[1]T. Ross Archibald, "A Shareholder's Perspective On External Accounting Reports," *Canadian Chartered Accountant*, (February, 1971), p. 108.

[2]*A Statement of Basic Accounting Theory*, (Evanston Illinois; American Accounting Association, 1966), p. 1.

[3]John C. Burton (ed.), *Corporate Financial Reporting; Conflicts and Challenges*, (New York: American Institute of Certified Public Accountants, Inc., 1969), p. 1.

[4]Harvey E. Kapnick, "Will Financial Forecasts Really Help Investors?", *Financial Executive*, (August, 1972), p. 50.

organization was instrumental in development of the demand for financial information. The individual providers of capital, remote as they were from the assets and operations in which they held an interest, demanded an accounting of the enterprise to which they had advanced capital. For the first time, someone other than the owner-manager had concern for financial information regarding the well-being of the enterprise.[5]

Criticisms of Present Practice

Writing in 1966, Howard Ross, C.A., Chancellor of McGill University, former President of the Canadian Institute of Chartered Accountants (CICA), and a partner in one of the nation's largest public accounting firms, had this to say regarding disclosure in corporate annual reports:

> On the grounds of reliability, those who use statements have little to complain about. For the last hundred years at least, the whole attention of the accounting profession and of government regulatory bodies has been concentrated on the prevention of fraudulent or misleading statements. This important battle has been in a fair measure won.
>
> However, in the process, the second and more important of the two basic requirements of those who use statements--that they should be informative--has been largely neglected.[6]

Nor is the problem peculiar to Canada. Speaking at the Third Annual Conference on Empirical Research

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[5] *Ibid.*

[6] Howard Ross, *The Elusive Art of Accounting*, (New York: The Ronald Press Company, 1966), pp. 7-8.

in Accounting, 1968, Marvin L. Stone, President, American Institute of Certified Public Accountants (AICPA) said that:

> Our present efforts to communicate financial data to users are grossly ineffective. . . . I am not sure whether we [accountants] are at fault or the public is at fault. But I have a strong feeling that our statements are as unintelligible to the public as would be the case if they were written in a foreign language. A new look is in order. . . . Somehow we must find a better way to communicate the meaning of accounting data to nonaccountants.[7]

The 1960's saw increasing evidence of dissatisfaction with financial reporting practice. Lawsuits raised questions concerning the adequacy of corporate disclosure and the reliability of the information presented. Numerous articles appeared in both the popular and the financial press suggesting that corporate management was able to substantially affect the nature of reports on their own results by application of measurement criteria which fail to reflect the economic realities of their situation.[8]

The problem, however, is not a recent development. Witness this address to the September 17, 1930, annual meeting of the American Institute of Accountants (later the AICPA):

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[7]Marvin L. Stone, "Problems in Search of Solutions Through Research," *Empirical Research in Accounting: Selected Studies, 1968*, (Chicago: Institute of Professional Accounting, 1969), pp. 63-64.

[8]Burton, *op. cit.*, p. 2.

> If, from time to time, letters or personal visits are received from investors indicating that they feel themselves lost, it is not in the corporeal sense, but in their endeavour to get a clear understanding, from published financial statements, of the progress of the corporations whose securities they own that they find themselves in this condition.
>
> . . . .
>
> The time appears to have arrived for some change of emphasis. . . . to give to stockholders, in understandable form, such information in regard to the business as will avoid misleading them in any respect and as will put them in possession of the information needed, and which can be supplied in financial statements, to determine the true value of their investments.[9]

While the emphasis of concern has shifted from one area to another over the years, the basic question remains: Are financial statements providing users with information requisite to their purpose?

Statement of the Problem

Present-day corporate annual reports have been accused of failing to provide the user with sufficient information for evaluation of corporate economic performance.

Progress in the preparation and presentation of financial reports has been hindered by the break which occurs between their preparation and their use. Accountants tend to lose interest in a statement once it has been prepared; while the users of the statements are generally in no position to insist on statements that would better serve their

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[9] J.M.B. Hoxsey, "Accounting for Investors," *The Journal of Accountancy*, (October, 1930), pp. 251-42.

requirements because they do not know what improvements are technically feasible.[10] Concentration on bookkeeping detail has obscured the true purpose of financial reporting.[11] The study of financial statements has focussed upon accounting procedures rather than on objectives.[12] Accounting procedures have commonly been the result of agreement between accountants, though in recent years they have been increasingly influenced by laws and regulations.[13]

The majority of what has been accomplished to date has been based on assumptions made by accountants, government, and management as to how financial data is utilized by financial statement users. The validity of these assumptions is unfortunately a matter of conjecture; little research has been undertaken in attempt to determine how decisions are actually made. Knowledge of external users and their decision models and parameters is necessary in order that accounting theory may continue to develop and accounting practice improve.[14]

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[10] Ross, *op. cit.*, p. 91.

[11] *Ibid.*

[12] Kapnick, *op. cit.*, p. 51.

[13] George O. May, *Financial Accounting: A Distillation of Experience*, (New York: The MacMillan Company, 1943), p. 3.

[14] *A Statement of Basic Accounting Theory*, p. 19.

Purpose of the Study

The very remoteness of the majority of users of financial statements from the resources and operations with which they are concerned requires the use of some communication device to keep them informed of the progress of the firm. The most commonly employed device is the corporate annual report. To be effective, reports must be informative --informative in terms of providing valid and reliable information to report users.

While there have been numerous studies conducted in the area of management's uses for accounting data, there is a dearth of published empirical research dealing with the usage of external financial reports. Hence this study was undertaken to determine, for a select group of users, (1) what their informational needs are, and (2) how well these needs are being met by current annual reports.

Chambers suggested that

> . . . it is shocking to find it asserted that experts in the compilation of financial information do not know what kind of information is used by, or is useful to those having interests in the financial characteristics of the firm.[15]

Only by directly determining the informational needs of the users can those needs be perceived with an acceptable level of accuracy. Corporate reporting objectives may thus be

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[15]R.J. Chambers, "Uniformity in Accounting," *The New York Certified Public Accountant*, (October, 1967), p. 750.

determined in direct response to the expressed needs of report users. This study undertook to: (1) survey the expressed informational needs of a select group of users of corporate annual reports and (2) determine the extent to which these users' desires were met by published annual financial statements. A questionnaire was prepared and distributed to all Chartered Financial Analysts resident in Canada. The questionnaire sought their opinions, as professional users, of the utility of various items of financial statement disclosure. A survey of Canadian corporate annual reports was then undertaken, that it might be determined to what extent the analysts' desires for disclosure were being met by current practice.

Use of this marketing concept approach, wherein the needs of the user are considered to be primal, permits a perspective unencumbered by the specifics of present practice.

Scope and Limitations of the Study

Basic to this study is the assumption that corporate annual reports are prepared primarily for present and prospective stockholders.[16] (This assumption, along with consideration of other report users, is discussed in

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[16]Donald E. Stone, "The Objective of Financial Reporting in the Annual Report," *The Accounting Review*, (April, 1967), p. 334; see also T. Ross Archibald, "A Shareholder's Perspective On External Accounting Reports," *Canadian Chartered Accountant*, (February, 1971), p. 105.

Chapter II.) Primarily due to their professional abilities and training, but also for reasons of identifiability and economics, it was decided to utilize Chartered Financial Analysts (CFA's) as surrogates for individual stockholders. Prior to achieving the CFA designation an analyst must demonstrate competence in investment management and financial analysis, as well as possess a knowledge of financial statements and accounting. The CFA occupies an unique position, having knowledge of the problems of the provider as well as the user of financial information.

It was further assumed that present reporting and disclosure practices are regarded by the accounting profession, management, and government as being at least minimally satisfactory; each of these groups is in a position to affect any changes they might deem to be necessary. All three groups, however, are separated from the fourth group, designated by this study as the users of annual reports, the shareholders.

These assumptions necessarily preclude consideration of the needs of other users, and any detailed consideration of the extent to which the information desired by stockholders might satisfy the needs of the other groups at interest, e.g., bankers, general creditors, trade unions and government. To the extent that these other groups have valid views regarding financial statement disclosure which should be incorporated in any proposal for revision of current practice, this study is thereby deficient. Expansion of the study into these areas would provide a basis for future research.

The study was directed primarily to the question of the relevancy of available data to existing conditions. It may be questioned whether or not present analytical processes used in making investment decisions are correct in the sense that they optimize the financial return, or otherwise achieve the goals of the investor. Certainly these practices are, at least to a degree, imperfect. The effectiveness of analytical methods is, however, at least on occasion, restricted by the nature and the quality of the information which is made available.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Traditionally, research concerning financial statement disclosure has focussed on three major questions:

1. For what purpose are financial statements prepared?

2. Who is, or should be, responsible for the reports and what they contain?

3. For whom are the statements prepared? Who are the primary users?

Purpose of Financial Statements

The objective of corporate reporting should be a function of the informational needs of the community in which the reporting takes place. Historically, accounting served to keep the individual entrepreneur informed regarding the position and progress of his enterprise; accounting provided the information which was required to make and implement necessary operating decisions. Financial reporting, as it is known today, developed primarily in response to the demands generated by the issuance of corporate securities, and legislation regarding the taxation of income.

Probably the greatest single catalyst for corporate disclosure was the stock market crash of 1929 which exposed the deficiencies of the then existing corporate reporting.[1] Nor did problems of disclosure end with the market crash. The annual reports submitted by one company to the Michigan Securities Commission for the years 1930-32 showed substantial losses but these losses were not reported to stockholders for three years. The company's defense was that revealing the losses would have collapsed the firm.[2]

Cattanach submitted that the predictions of price patterns were followed so closely by investors that resultant price changes were frequently a manifestation of investor "psychology", rather than a function of an independently determined phenomenon in the market.[3] Cattanach's statement is consistent with the findings of Singhvi and Desai who, in an empirical study of 55 major U.S. corporations, concluded that

> . . .the superior quality of disclosure is related on an average with the lower price fluctuations. . . . Dispersion between the market price and the intrinsic value of a security in part is the result of the quality of information--the more superior the quality of information, the lower will be the

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[1]Richard Lewis Cattanach, "An Inquiry Into the Informational Needs of Stockholders and Potential Investors," (unpublished Doctoral dissertation, Arizona State University, 1972), p. 19.

[2]Surendra S. Singhvi, "Corporate Management's Inclination to Disclose Financial Information," *Financial Analysts Journal*, (July-August, 1972), p. 66.

[3]Cattanach, *op. cit.*, pp. 19-20.

price dispersion.[4]

While the 1929 market crash and the investigations which followed were primarily American phenomena, their impact on Canadian business, albeit indirect, was considerable. Legislation began to be enacted, and pressure directed to accountants and managements in both countries, to recognize that investors not only had a legitimate interest in, but a right to information regarding firms in which they have invested or might be considering investing in.[5] In Canada this was accompanied by pronouncements on the part of the accounting profession as to forms of disclosure and content, while in the United States the Securities and Exchange Commission (S.E.C.) had largely assumed responsibility for such matters.

There is general concensus that the primary purpose of corporate annual reports is to report to investors, both current and potential.[7] An effective annual report should explain what happened financially during the year, and why.

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[4]Surendra S. Singhvi and Harsha B. Desai, "An Empirical Analysis of the Quality of Corporate Financial Disclosure," *The Accounting Review*, (January, 1971), pp. 136-137.

[5]Singhvi, *op. cit.*, p. 67.

[6]*Ibid.*, p. 69.

[7]Leonard Spacek, "The Merger Accounting Dilemma--Proposed Solutions," *Financial Executive*, (February, 1970), p. 38.

Every effort should be made to give readers the facts which they require for an accurate evaluation of the firm.[8] Mauriello defined investment analysis as ". . .the study of financial statements for a period or several periods in conjunction with economic and other factors for the purpose of reaching conclusions and making decisions consistent with the special interests and objectives of the person making the analysis."[9] The common requirement of all report users is that the information on the past period should be as accurate and as complete as possible in order to reduce the margin of error in decisions regarding the future. In the words of George Staubus:

> When we recognize the investor group as a major consumer of the accountant's product and, at the same time, realize that this product is information, we quickly find ourselves facing the question, "What information does the investor need?" This query cannot be answered without considering the uses to be made of the information. Then, by taking into account the measurement aspect of accounting, we quickly arrive at the conclusion that a major objective of accounting is to provide quantitative economic information that will be useful in making investment decisions.[10]

Investors want a consistent measure of corporate

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[8]Irving Trust Company, *Effective Annual Reports from the Analyst's Viewpoint, A Reference Guide*, (New York: Corporate Service Division, Irving Trust Company, 1966), p. 2.

[9]Joseph A. Mauriello, *Accounting for the Financial Analyst*, (Charlottesville, Virginia: The Institute of Chartered Financial Analysts, 1967), p. 1.

[10]George J. Staubus, *A Theory of Accounting to Investors*, (Lawrence, Kansas: Scholers Book Co., 1971), p. viii.

performance, one which is not subject to manipulation. They want to know how good the company is, how solid the earnings are, and how real the growth is. To make efficient allocations of capital the investor requires accounting information which is consistent with economic reality.

Responsibility for Corporate Reporting

Given that the purpose of annual reports is to communicate information--information relevant and adequate to facilitate orderly and intelligent operation of the economic system: What group is to be charged with provision of this information?

Traditionally the flow or process of information has been as illustrated in Figure 1, from management--through the auditor--to the user. Management provides the information, the auditor attests to its correctness, and the user--here the investor or the financial analyst acting on behalf of the investor--uses it. While these parties have in theory a common interest in accurate financial statements, in practice their separate interests often tend to diverge.

The Role of Management

The managers are reporting to shareholders who have turned over their assets to the managers who have the

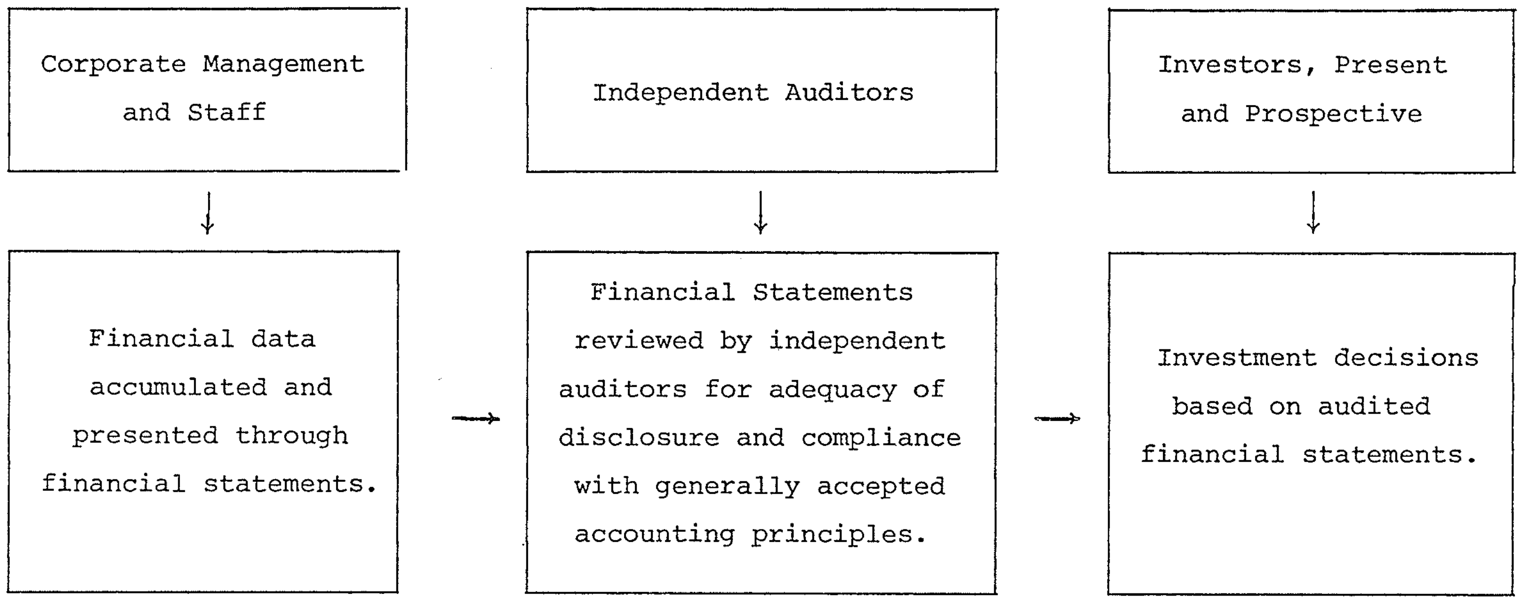

Figure 1

Assumed Flow of Data in Investment Market*

* R.K. Mautz and Hussein A. Sharaf, *The Philosophy of Auditing*, (Iowa City: American Accounting Association, 1961), p. 189.

obligation of operating these assets in the best interest of the shareholders.

> From the time that management and ownership of a business were largely identical, management has traditionally had the legal and ethical responsibility for reporting on the financial position and results of operations.
>
> . . . .
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> . . . to make full disclosure of all material facts, to make statements fair and not misleading, and in general to tell the whole truth. No one else can assume such responsibility in place of management.[11]

Thus, a significant function of the external accounting reports is to provide appropriate information to investors (asset owners) so that they may review and control the actions of the asset operators (management).[12]

The Role of the Public Accountant

The professional accountant, in his capacity as auditor, is at the centre of the conflict. Thought by many users to be the final arbiter of accounting questions, he is in fact responsive to the wishes and dictates of management, so long as they contravene no statutory

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[11]Financial Analysts Federation, *Objectives of Financial Accounting and Reporting from the Viewpoint of the Financial Analyst*, Statement to the Accounting Objective Study Group of the AICPA, New York, March, 1972, prepared by the Financial Accounting Policy Committee. Reprinted in *Canadian Chartered Accountant*, (August, 1972), p. 42.

[12]T. Ross Archibald, "A Shareholder's Perspective On External Accounting Reports," *Canadian Chartered Accountant*, (February, 1971), p. 105.

requirements and are within the range of "generally accepted" principles.[13] Herman Bevis had this to say of the role of the accountant:

> The inherent authority of a CPA over a corporation's financial statements is, technically, nil. All that he owns in the annual report to stockholders is his formal "opinion".
> . . . .
> All else belongs to management. The latter may--in financial statements, footnotes, supplementary tables, and commentary--call "black" what the certifying CPA thinks is "white", and all that the certifying CPA can do about this is to state what he thinks in his opinion.[14]

Public expression of disagreement between auditor and client is, however, atypical; most always such differences are resolved prior to publication of the annual reports. The recommendations of the professional accountant (CA or CPA) customarily carry considerable weight with the client.

In addressing the Berkeley Symposium on the Foundations of Financial Accounting (1967), Dr. Corliss D. Anderson had this to say of the relationship, as he perceived it, between the corporation and its auditor:

> I have the definite impression that the auditing firm is hired by and is reporting to management rather than to the shareholders and creditors. Many corporations, of course, ask their shareholders to vote on a suggested choice of auditing firm, but this usually boils down to a mere formality.
> . . . The day may well come when the outside

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[13]Herman W. Bevis, *Corporate Financial Reporting in a Competitive Economy*, (New York: The MacMillan Company, 1965), pp. 184-188.

[14]*Ibid.*, pp. 185-187.

> directors [e.g., bankers and solicitors] choose the auditing firm, and call for a wider dissemination of the meaningful figures than now occurs. It is significant, I think, that no shareholder, (perhaps no director) today can interrogate a company's auditing firm. . . .[15]

In the six years since Anderson spoke (1967-73), major changes have been made to Canadian practice in this area. The Legislature of the Province of Ontario instituted the most comprehensive range of modifications seen thus far. The Business Corporations Act, Chapter 25, Statutes of Ontario 1970 provides that the auditor has a *right* to make representation to individual shareholders (Section 169-2); that the auditor is entitled to attend the annual meeting (171-12); and that a shareholder may require the auditors attendance (171-13) and that the auditor must respond to the shareholder's inquiries at such meeting. The legislation also requires the appointment of audit committees (Section 182). Comprised in their majority of "outside"--non-management--directors of the corporation, the audit committee is charged with the duty of giving to the auditor such direction as may be required, and to receive and review the auditor's report. While these developments are not as far-reaching as is Swedish legislation, which provides for shareholders holding a minimum of

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[15]Corliss D. Anderson, "The Financial Analysts Needs," *Financial Accounting Theory II: Issues and Controversies*, eds. Thomas E. Keller, Stephen A. Zeff (New York: McGraw-Hill Book Company, 1969), p. 188.

10 per cent of the outstanding common stock being entitled to have their own, independent, auditor appointed,[16] they are indicative of the increasing attention being paid to corporate reporting.

The auditor has standards for disclosure which he insists must be met if he is to attach his "present fairly" stamp of approval to the statements. However, present disclosure standards fall short of the disclosure on which investment decisions are made.[17] The auditor is in a position to require an improvement to financial disclosure only to the extent that regulatory requirements or the pronouncements of his professional group are not being heeded. Beyond that point disclosure is the prerogative of management and the auditor is relegated to the role of advisor or counselor. Apart from friendly persuasion, his only recourse in event of disagreement is the withholding of an unqualified opinion. Such qualification is possible only where the firm has failed to comply with generally accepted accounting principles and is not available to the auditor when the firm uses a method of disclosure which is acceptable to, but not preferred by, the auditor. Management has broad latitude in its accounting policies so long as they

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[16]Edwin C. Bomeli, "Management Reviews by Scandanavian Accountants," *Journal of Accountancy*, (July, 1964), p. 35.

[17]Robert K. Mautz and Hussein A. Sharaf, *The Philosophy of Auditing*, (Iowa City: American Accounting Association, 1961), p. 191.

fall within the framework of "generally accepted accounting principles".

Users of Annual Reports

The AICPA in chartering the Accounting Objectives Study Group, under the Chairmanship of Robert M. Trueblood (1971), suggested that the primary questions deserving of attention when considering the users of annual reports were: Who needs financial statements? What information do they need? and What framework is required to provide the required information?[18]

The three basic groups of users of external accounting reports are:

1. Investors
2. Creditors
3. Government

Of the three, the group most singularly dependent upon the corporation's annual report for information is that of the investors. Governments and, to a large extent creditors, have the authority, or at least the influence, to require the provision of whatever information they deem necessary for their purpose, and in whatever format they may specify. Often this takes the form of supplementary detail

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[18]AICPA, *Charter of the Accounting Objectives Study Group*, cited in *Corporate Financial Reporting: The Issues, the Objectives and Some New Proposals*, eds. Alfred Rappaport, Lawrence Revsine (New York: Commerce Clearing House, Inc., 1972), pp. 157-158.

elaborating upon specific items abstracted from the annual reports as prepared for general distribution. Thus, if the informational needs of investors can be met, the requirements of the other groups will be satisfied also.

Investors and Stockholders

The investor is most often regarded as the primary user of corporate financial reports as it is he who bears the risk of loss of his investment. The investor also is the only user who develops a valuation for the enterprise, a complex, multi-faceted task. While the equity investor is in many ways similar to the lender; the equity holder, occupying a residual position, desires more detailed information than does the lender. It is ironic that the lender, operating from a position of security or collateral, is commonly in a position to request, and receive, more detailed information than is the equity investor who has only his residual rights for protection. The equity investor allots his capital according to some measure of the relative risk and reward of alternative investment opportunities. How these concepts--reward or return on capital--are measured is a function of the accounting reports.

A recent survey found that stockholders, as compared to analysts, reported spending a minimum of time reading the annual reports of firms in which they have a financial interest.[19]

Reading Time	Stockholders	Analysts
Did not read at all	15%	-
0 - 5 minutes	25	-
6 - 15 minutes	26	8%
16 - 30 minutes	34	-
31 - 60 minutes	-	32
60+ minutes	-	60
	100%	100%

The report concluded:

> When you consider that the average annual report contains numerous financial tables, from 4,000 to 8,000 words, and a dozen photographs, obviously the report has failed to communicate.[20]

The common denominator of user's needs for financial information is the measurement of earning power. Just as the investors' evaluation of a firm is, in large part, a function of its earning power; the lender must also look to earning power for repayment. Government, and not incidentally management, is also concerned with earning power. All elements of a financial report contribute to the process of assessment by a user or group of users; the relative importance of any given element will vary from user to user, and as well with the passage of

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[19] Fred C. Foy, "Annual Reports Don't Have To Be Dull," *Harvard Business Review*, (January-February, 1973), p. 49-50.

[20] *Ibid.*

time.[21]

The traditional concept of the flow of corporate reporting information as was illustrated in Figure 1 is seen to be oversimplified and incomplete. The model presented in Figure 2 is more representative of present-day practice in North America. The influence of the S.E.C. is, of course, not directly operative in Canada. Of the additional parties shown in Figure 2, one of the most influential in the development of financial reporting has been that of the financial analysts.

Financial Analysts

Professional analysts have long regarded the annual report as a major source of information. Witness the concluding remarks of Charles T. Horngren to a 1957 study which was based on a survey of 51 analysts:

> There is widespread agreement among security analysts that the company annual report serves as the springboard for their review. Although the annual report is not always the most important source of information, in terms of universal usage it belongs in first place.[22]

A 1962 survey of 671 U.S. analysts disclosed that 87% considered the annual report to be a prime source of

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[21]Financial Analysts Federation, p. 43.

[22]Charles T. Horngren, "Disclosure: 1957, "*The Accounting Review*, (October, 1957), p. 599.

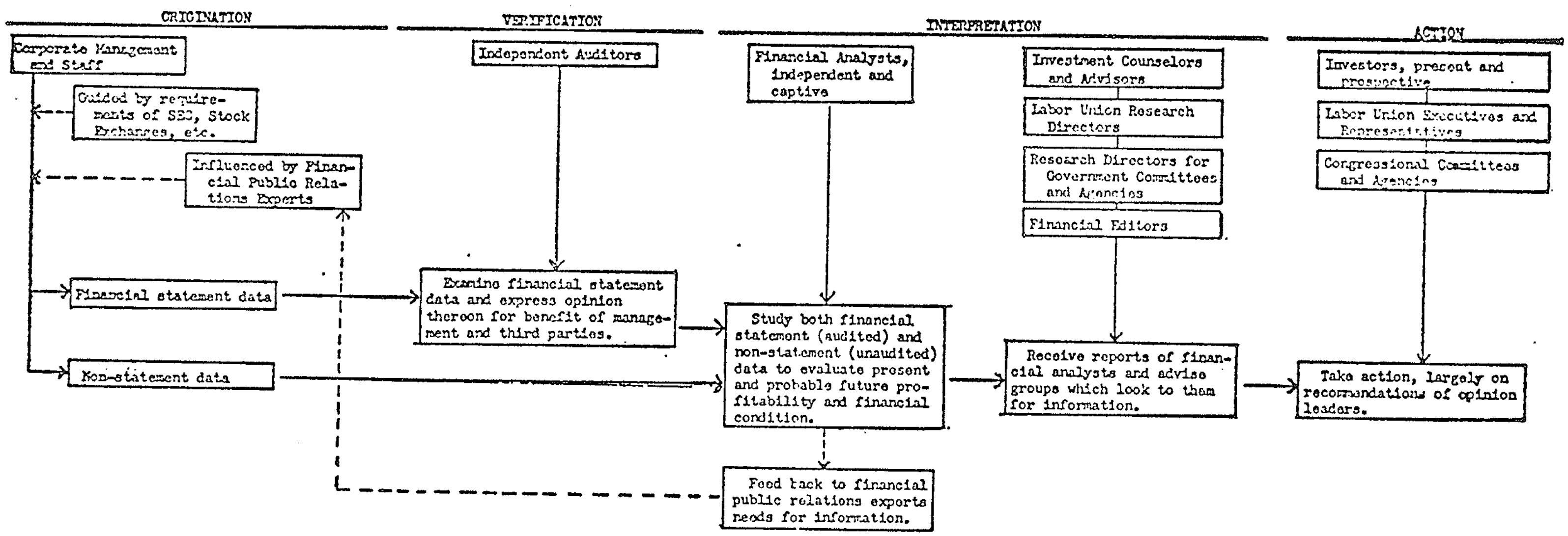

Figure 2

Flow of Financial Information in Present Investment Markets*

*Mautz and Sharaf, p. 190.

information in appraising companies.[23]

Analysts have been a positive force in attempts to improve disclosure in annual reports, and argue that their experience and knowledge deserves recognition in any consideration of changes in corporate reporting.[24] The substantial attention devoted by high-level corporate financial public relations men to relationships with professional analysts would appear sufficient evidence of the importance which management attaches to keeping analysts informed about the firm's activities.

The essence of security analysis is comparison of a security's current price to the discounted value of its projected future earnings. Financial disclosure assists the investor in making an informed judgement as to what those earnings will be. Differences in interests and abilities between the professional analyst and the non-professional create substantial problems for the suppliers of information. Data must serve two groups, the sophisticated and the unsophisticated.

Individual stockholders and their professional advisers have definite responsibilities as users of financial reports. Professional and non-professional alike

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[23]Hugh L. Rusch, *The Importance of Good Financial Public Relations*, (Princeton: Opinion Research Corporation, 1962), p. 23.

[24]Charles T. Horngren, "Increasing the Utility of Financial Statements," *The Journal of Accountancy*, (July, 1959), p. 39.

must use due care and diligence in interpreting the information which they receive. An investment decision made on the basis of a single parameter, such as the earnings per share figure (EPS), is not consistent with the exercise of due care and diligence and no one should be accountable to such an investor in regard of any damages incurred as a result.[25] "Wise investment decisions cannot be made, except by chance, by persons uninformed in accounting and business terminology and procedures. . . . investors should be willing to read carefully and be reasonably informed on financial matters".[26]

It has been estimated that upwards of one hundred million North Americans participate in the investment market. Fifteen to twenty per cent participate directly by ownership of shares in public corporations, while the majority are indirect participants through investment trusts, pension and insurance plans.[27] It is often suggested that while individual investors may be the primary users of financial statements, professional assistance is necessary to obtain intelligent interpretation of the

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[25]Henry B. Reiling and John C. Burton, "Financial Statements: Signposts as Well as Milestones," *Harvard Business Review*, (November-December, 1972), p. 46.

[26]Bevis, *op. cit.*, p. 182.

[27]Eldon S. Hendriksen, *Accounting Theory*, (Homewood, Illinois, Richard D. Irwin, Inc., 1970), p. 561.

reports.[28]

Hence, investors look to investment counsellors and securities dealers rather than to the corporations themselves, or their financial reports, for information. Investors rely on analysts to collect and summarize information as the analysts are recognized as possessing the requisite expertise. To an increasing extent, the financial analysts' profession constitutes a medium through which investment information is transmitted to users. This is not to suggest that analysts are the primary group for whom financial reports are prepared, but rather to emphasize the extent to which an individual investor desiring to make an informed decision requires, at a minimum, the same information as the professional analyst. If the needs of the most sophisticated of users can be met, other users shall likely be availed of at least as much information as they can effectively utilize.[29]

Summary

Corporate financial reports should be prepared in such a manner as to present fully, fairly, and clearly

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[28]Patrick Kemp, "Controversies on the Construction of Financial Statements," *The Accounting Review*, (January, 1963), p. 126.

[29]Bevis, *op. cit.*, p. 69; see also Robert K. Mautz, "Financial Reporting by Conglomerate Companies," *Financial Executive*, (February, 1968), p. 55; and, Robert K. Mautz and Hussein A. Sharaf, *The Philosophy of Auditing*, (Iowa City: American Accounting Association, 1961), p. 185.

the transactions of consequence, as well as the financial position of the firm. The format of their presentation should enable an intelligent user to make his own independent evaluation of the firm, its management, and its potential for the future.

No system exists presently whereby users of financial information may make their needs known in order that financial statement disclosure may be improved. Particularly in Canada, having no national organization such as the Securities and Exchange Commission, it has been left largely to management, with the assistance of the accounting profession, to determine what shall be disclosed in annual reports.

The Chartered Accountant, in his role as auditor of the financial statements, is charged with the duty of commenting on the propriety of the statements which management is passing on to the shareholders. The Chartered Accountant, however, is not empowered to state whether a different presentation would have yielded "better", more meaningful, and realistic statements. The duty of the auditor is limited to an opinion as to the consistency and general acceptability of the package of accounting principles put together by management, and whether it yields "fair" statements. At the level of the individual auditing firm, little can be done so long as the procedure proposed by management is within the range of generally accepted accounting principles.

Thus, the only existing possibilities for improved disclosure, other than voluntary change on the part of management, are the pronouncements of government, the CICA, and the individual securities commissions and exchanges, which have the effect of quasi-law. Since such changes generally occur only after numerous failings and shortcomings of present disclosure practice have been documented, it is contended that they have demonstrated an inadequate solution to the problem.

CHAPTER 3

RESEARCH DESIGN AND PROCEDURE

In order that the hypothesis of the study might be investigated in a quantitative manner, a procedure was developed to (1) determine the informational needs of the users of annual reports, and (2) survey the extent to which these needs were being met by current annual reports.

Determination of user needs required the selection of a group of spokesmen for the numerous individual investors and stockholders as well as the development of an instrument to specify and assess their needs. Measurement of the extent to which user needs are satisfied by current annual reports required: tabulation of the instrument results, identification of those items of information which the respondents considered to be useful, and comparison of these findings with a sample of corporate annual reports.

Research Design

Chartered Financial Analysts were chosen, as surrogates for the numerous individual investors, to receive a questionnaire concerning disclosure of selected items of information. The results of this survey were then compared with the annual reports of fifty of Canada's largest industrial corporations to determine the extent to which the user's desires for the specific items of information were being met in present practice.

Selection of CFA's

A highly skilled and qualified group was sought because it was felt that their opinions on accounting statements would provide a more valid appraisal of the utility of financial reports than would those of a representative group of investors in general. A sampling of individual investors would include many persons whose opinions would have little significance to the study because they lacked the necessary technical expertise and experience. Most individual investors, like institutional investors, utilize the results of professional security analysis in making investment decisions. They obtain the information from personal investment counsellors, securities dealers, and financial publications.[1] The choice of CFA's, rather than individual investors, rested largely on their competence as users of financial reports, and their knowledge of the accounting practices and procedures involved in the preparation of annual reports.

Financial analysts in North America may work toward a

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[1]Morton Backer, *Financial Reporting for Security Investment and Credit Decisions*, (New York: National Association of Accountants, 1970), p. 7.

professional qualification offered by their federation, based on a formal training program including a series of three examinations, the CFA designation--Chartered Financial Analyst. To obtain this designation a person must have demonstrated competence in the fields of accounting and financial statement analysis, as well as possess a working knowledge of the practical applications of securities analysis and investment management. Relatively few individual investors are sufficiently knowledgeable in such matters to offer significant information to a study such as this.

Questionnaire Format

In order that the study might permit cross-cultural comparisons with reporting practice in the United States, it was decided to use an instrument similar to that of Cattanach's 1972 American study[2] which had surveyed 500 CFA's and a sample of 100 annual reports from the Fortune "500" survey of the largest industrial firms in the United States.

Respondents were asked to consider 65 questions dealing both with information presently contained in corporate annual reports and that which has been seriously suggested for inclusion. Emphasis was placed not on what

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[2]Richard Lewis Cattanach, "An Inquiry Into the Informational Needs of Stockholders and Potential Investors" (unpublished Doctoral dissertation, Arizona State University, 1972).

information *is* contained in reports currently, but what *should be* disclosed.

The first section (A) dealt primarily with items which either are not currently presented in annual reports or are not attested to by the auditor. The respondent was asked to indicate, with respect to the individual items contained in the section, whether he agreed with the statement as presented, disagreed, or was indifferent.

Sections B and C, dealing with the income statement and the balance sheet, were arranged, question by question, in the order in which they are customarily presented in published reports. This format, while having the advantage of presenting a familiar sequence or progression of items to the respondent, was not intended to suggest anything sacrosanct about present practice; current format was used only because the concern of the study is with *what* should be disclosed, and not *how* to disclose it.[3] The fourth and final section (D) concerned the funds statement, its composition and utility.

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[3]Some interesting studies have been undertaken regarding the readability of annual reports. One survey of 49 corporations reported that all of the 49 required an education grade level of XIII and that the majority, 73.5% were, according to a standard classification system, ranked as "very difficult" and were classed as scientific writing, suitable only for college graduates; see, James Emanuel Smith, "A Critical Analysis of the Application of Communication Theory to Accounting Communications via Published Financial Statements" (unpublished Ph.D. dissertation, The University of Arizona, 1972). Also, in, "Readability: A Measure of the Performance of the Communication Function of Financial Reporting," *The Accounting Review*, (July, 1971), pp. 552-561.

Questionnaire Measurement Scale

The four sections of the questionnaire were structured so that the responses could be analyzed and inferences made using the theory of binomial distributions. While the binomial scale admits to criticism in that it does not permit quantitative analysis of differences in the degree to which a person agrees or disagrees with a given statement, inferences can be made regarding characteristics of the population from which the sample was taken, or the difference between two populations.

Questionnaire Validity and Reliability

If a questionnaire is to be of value it must measure responses in a manner that is both valid and reliable--reliable in that it must be consistent in the answers which it gives, and valid in that it should actually measure what it is intended to measure. Three questions were repeated in different areas of the questionnaire in an attempt to discover any inconsistencies in the responses. Any inconsistency would point to faults in question wording, serial or contextual effects, or other sources of error.[4] All three questions were deemed useful in both locations and thus no gross inconsistency was indicated.

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[4] A.N. Oppenheim, *Questionnaire Design and Attitude Measurement*, (New York: Basic Books, Inc., 1966), p. 71.

The AICPA, in 1971, established the Accounting Objectives Study Group (Trueblood Committee) under a broad charter, to examine old and new concepts concerning accounting principles, financial statements, reporting and disclosure practices, and newly conceived demands for data such as social responsibility performance and financial forecasts. As of the date of writing, the committee had not yet reported; when the findings of the committee are released they might present a means of further testing the validity of the questionnaire.

Questionnaire Comparison with Annual Reports

A random sample of 50 corporate annual reports was drawn from the list of corporations comprising the Financial Post "Top 100 Club" survey of the largest industrial corporations in Canada (August 5, 1972). In analysis of the annual reports, comparison was made to the items of information deemed useful by the CFA's. Thus, an indication was obtained of the degree to which corporate annual reports fulfill their informational role.

Research Procedure

Questionnaires were mailed to each of the 203 CFA's in Canada and returns were tabulated in order to determine which items were considered by the CFA's to be useful for their analyses. Once tabulated, the replies provided a basis for comparison of "ideal" disclosure with actual disclosure as determined by a sample of the annual reports of 50 firms from the Financial Post "Top 100 Club".

The Questionnaire

The decision having been made to utilize a questionnaire similar to that used by Cattanach in his 1972 American study[5], changes were kept to a minimum in order that cross-cultural comparisons might be at a maximum level of validity.

Changes to the questionnaire were confined to the deletion of items not pertinent to Canadian business such as reference to compensating cash balances, certain references to the Lifo method of accounting for inventories, and securities designed specifically for the payment of taxes. "Canadianization" of terminology was undertaken in instances where differences were considered to be potentially misleading; e.g., substitution of "potentially dilutive" for the term "common stock equivalent" in referring to senior share issues, rights, warrants, or options, the potential conversion of which would have the effect of reducing (diluting) the earnings per share figure.

A questionnaire was sent to each of the 203 CFA's in

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[5]Cattanach, *op. cit.*

Canada as listed in the 1972 membership directory of the Financial Analysts Federation.[6] Where normally consideration would have been given to selecting a sample of the CFA's, it was felt that as the population was limited, it would be preferable to survey each of the CFA's in Canada.

Questionnaire Analysis

The format of Section A was such that the respondent was asked whether or not a particular item of information was useful to his analysis. For each question, he was asked to check one of three columns: "agree", "disagree", or "no-opinion". For purpose of analysis, an entry of "no-opinion" was considered equivalent to "disagree" and thus the respondent can be considered as either (1) agreeing with a given statement, or (2) failing to agree with it. Accordingly, the theory of binomial distribution was applied which enabled calculation of the proportion of the respondents to each individual question desiring the information, as well as the standard error or deviation which may be used to indicate the degree to which the sample proportion might differ from the same proportion in the parent population.

Sections B, C, and D were so constructed that the respondent was asked to check one of four columns:

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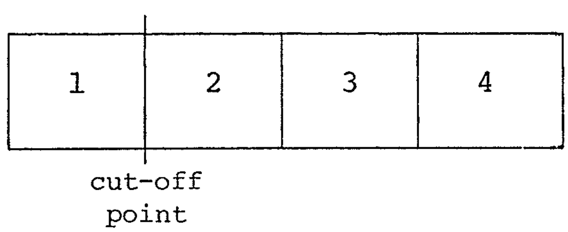
[6] The Financial Analysts Federation, *1972 Membership Directory*, (New York: Financial Analysts Federation, 1972).

1. Essential
2. Desirable
3. Somewhat Desirable
4. Unnecessary

Binomial distribution theory was again used to determine whether or not a substantial proportion of the population would consider the information useful. Substantial here means a proportion from which it may be statistically inferred that more than 50 per cent of the population, an arbitrarily assigned proportion, was in agreement.

Since responses considering an item useful could vary from "essential" to "somewhat desirable", proportions were computed cumulatively to determine the category in which a given item should be classified. First to be considered was the proportion indicating the item as "essential" (column 1).



Only those items which could be inferred to exceed the minimum acceptable population proportion of 50 per cent would be considered as essential. If the proportion could not be inferred to exceed 50 per cent, the item would then be considered for inclusion in the "desirable" category. The proportions were considered as before, except that they now included the total number of respondents who had checked either Column 1 or Column 2.

1	2	3	4

cut-off
point

The remainder of the useful items were considered in the "somewhat desirable" category, Column 3. The proportions for these items were computed using the sum of the respondents checking one of the first three columns.

1	2	3	4

cut-off
point

Items not exceeding the 50 per cent minimum acceptable population proportion in the "somewhat desirable" category were excluded from further analysis. Figure 3 illustrates the format of the presentation for the ranking of the items according to their desirability as reported by the respondent CFA's.

For any given question, three inferences are possible:

1. The population proportion is greater than 50 per cent.

2. The population proportion is exactly 50 per cent.

3. The population proportion is less than 50 per cent.

Category	Proportion of Respondents Checking		
	1	1+2	1+2+3
	Essential	Essential, & Desirable	Essential, Desirable, & Somewhat Desirable
B - Income Statement			
C - Balance Sheet			
D - Funds Statement			

Figure 3

Format of the Presentation of Information

Deemed Useful by CFA's

The purpose of the questionnaire being to determine what information is useful to CFA's, any item of information for which the population proportion could be inferred to be greater than the arbitrary cut-off of 50 per cent would be included in the analysis. Any proportion of 50 per cent or less would be so excluded. Thus, the null hypothesis being tested is that the proportion is equal to 0.50, $H_0(p_h = 0.50)$. When the null hypothesis cannot be rejected, the information would not be included in further analysis as insufficient support exists for such an inference. Conversely, when the alternative hypothesis is accepted $H_1(p_h > 0.50)$, the question is included in the analysis. The decision rules were established[7] as follows:

Hypothesis	Rule	Action
$H_0(p \leq 0.50)$	$p_s \leq 0.6269$	Exclude from analysis as not being significant
$H_1(p > 0.50)$	$p_s > 0.6269$	Include in analysis

Cross-cultural comparisons were performed utilizing equivalent statistical criteria.[8] The null hypothesis under test was that there is no difference in the true population proportions, $H_0(p_1 = p_2)$.

Annual Report Sampling and Analysis

From the files of the library of the University of

[7] Appendix C, pp. 132-140.

[8] *Ibid.*

Manitoba, a selection was made, using a random number table, of fifty annual reports from those of the corporations shown in the Financial Post "Top 100 Club" listing. Each report was then analyzed and the results tabulated for each question as to whether or not the information desired by the CFA's was disclosed by the subject corporation.

The format of the study did not permit any conclusions to be drawn as to the extent to which a particular report satisfied the CFA's desires--and hence had utility for the investing public. All that can be said is that "x" per cent of the desired information was disclosed. In absence of a weighting and ranking system to permit the assignment of relative values to particular items of disclosure, any attempt to conclude that "Company A" disclosed x% more items than did "Company B", would be ill-founded and misleading.

Figure 4 illustrates the format utilized for presentation of the comparison between the items which the CFA's deemed useful and the disclosure of those items by the sampled corporations.

Questionnaire Distribution

January 22, 1973, a mailing comprising a covering letter, a copy of the questionnaire, and a return envelope, was mailed to each of the 203 Chartered Financial Analysts

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
			U.S.	Canadian	Cdn.-U.S.

Figure 4

Illustration of the Tables Used to Display the Results of the Analyses of Questionnaires and Annual Reports.

resident in Canada. Appendix A displays the material sent to each analyst.

A total of forty-seven questionnaires (23.2%) were received by March 22, 1973, which was established as the deadline for inclusion in the study. Of the forty-seven replies, there were forty-two usable questionnaires (20.7%). Of the five non-usable responses two were undeliverable, one C.F.A. was deceased, and two were returned indicating that the recipient did not care to participate in the survey.

Summary

A questionnaire was prepared and distributed to the Chartered Financial Analysts in Canada seeking their opinions regarding the utility of items of disclosure in corporate annual reports. Stockholders and investers having been deemed the primary users of corporate annual reports, the CFA's were chosen as surrogates for the numerous individual stockholders and investors. Only those items of information which are presently disclosed, or have been seriously suggested for disclosure, were included in the questionnaire.

The returned questionnaires were tabulated as to the information desired by the CFA's. The findings were then compared with the results of a sample survey of corporate annual reports in order to determine to what extent the informational needs of the investor/shareholder are being met by present-day financial reports. The detailed analyses of the questionnaire and the annual reports are presented in Chapters 4 and 5.

CHAPTER 4

DETERMINATION OF INFORMATION DEEMED USEFUL BY THE CFA'S

Questionnaire returns were tabulated to determine which items of information had value for investor and shareholder analyses. In order that an item be considered useful, it must have been capable of being inferred to be desired by more than 50 per cent of the population. Thus, the sample proportion, using a confidence coefficient of 95 per cent, must exceed 0.6269 to justify an item's inclusion in the study. When the item could not be so deemed useful this was indicated by an asterisk (*) to the right of the proportion. When the hypothesis was accepted in either the Essential or the Desirable category, a dash (-) was placed in the remaining columns, signifying that the hypothesis had been accepted in the earlier category.

Cross-cultural comparisons were made with Cattanach's U.S. study[1] using formulas (C-6) and (C-7) from Appendix C. While some differences did occur, and are noted in the accompanying text, none were statistically significant at the 0.5 level. Accordingly, it was decided to not present the comparative U.S. figures for each questionnaire item.

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[1] Appendix C, pp. 132-140.

In order to conserve space, many of the questions were summarized in the tables. Reference is made to Appendix A for a complete copy of the questionnaire.

Section A--General

This section comprised questions regarding the scope and the format of the annual report. The respondent was asked to indicate whether he agreed or disagreed with each statement, or, if he had no belief regarding the utility of the item, to check the no-opinion column. Table 4-1 details the proportion of the CFA's desiring the individual items of information.

The CFA's were near unanimous in their opinion that detailed information regarding subsidiary firms, disclosure of the details of executory contracts, and unfilled orders was useful to their analyses.

Management often has considerable choice, amongst "generally accepted accounting principles", as to how the results of operations are to be calculated or presented. The CFA's favoured disclosure of the accounting principles adopted by management, and a minimization of the number of available alternatives. Disclosure of changes in accounting methods can bring out changes in management's financial and operating policies, while unexplained changes tend to destroy the significance of trends and other analytical tools based on historical sequences in reported data.

Table 4-1

General Information Considered Useful by Respondents

Question Number		Information	Proportion of Respondents Considering the Information Useful
A-1.	a.	Extension of the auditor's opinion to include the financial highlights	0.524 *
	b.	Extension of the auditor's opinion to include the historical summary	.548 *
A-2.		Extension of the auditor's opinion to include all the financial information in an annual report	.463 *
A-3.		Disclosure of the accounting principles used by a firm	.976
A-4.	a.	Name(s) of	1.000
	b.	Lines of business	1.000
	c.	Operating revenues	.952
	d.	Operating profits	.976
	e.	Accounting basis of the major classes of assets	1.000
	f.	Ownership percentage of the parent company	1.000
	g.	Officers and directors	.833
	h.	Method of allocating joint costs among the subsidiaries	.929
A-5.		There should be a single set of accounting principles with a minimum number of acceptable alternatives	.805
A-6.		Inclusion of budgetary data	.366 *
	a.	Estimated gross sales, total	.366 *
	b.	Estimated gross sales, by component group	.317 *
	c.	Estimated capital investment, total	.366 *
	d.	Estimated capital investment, by component group	.317 *
	e.	Estimated net income, total	.366 *
	f.	Estimated net income, by component group	.317 *
	g.	Estimated long-term financing to be undertaken during the coming year	.317 *
A-7.		Extension of the auditor's opinion to include budgetary data	.073 *
A-11.		Disclosure of the rights and obligations that arise due to executory contracts	1.000

Table 4-1 (continued)

Question Number	Information	Proportion of Respondents Considering the Information Useful
A-12.	Quantity of unfilled orders	0.952
A-13.	Funds statement	0.714

* Fail to accept hypothesis that $p > 0.50$ at .05 level of significance

Canadian practice has long favoured disclosure of the accounting principles followed by a firm, although there has been no Canadian pronouncement dealing with disclosure in this area to the depth of the U.S.' APB Opinion No. 22 *Disclosure of Accounting Policies*, issued in April, 1972. However, even it does not require disclosure of the quantitative implications of different principles.

Table 4-2 indicates a strong preference regarding the form of disclosure of minority shareholder interests and the income of unconsolidated subsidiaries. The response to question A-8, dealing with the form and extent of detail in the income statement, was not as definitive. Several respondents indicated their unfamiliarity with the terms "single-step" and "multiple-step", regarding the income statement, and the reply must be considered as inconclusive.

The response to Section A indicated that the CFA's do not simply want "more" information; they express definite preferences for certain items of information and not for others, as well as preferences for the manner of presentation of given items. Only a minority expressed a desire for the inclusion of budgetary information, apparently regarding this projective function as one to be best performed by the investor, rather than by management. Of the few who favoured the inclusion of budgetary data, even fewer still indicated that it should be attested to by the auditor. Unfortunately, no companion question existed in Cattanach's U.S. study to

Table 4-2

Preferred Method
of Disclosing
Selected Information

Question Number	Question	Proportion of Respondents Agreeing	Disagreeing	Having No Opinion
A-8.	The single step form of income statement is more useful than the multiple step income statement	0.184	0.211*	0.605
A-9.	When minority shareholder interests exist, their share of profits should be listed with other items of expense rather than listed as a separate cost after income taxes	0.071	0.881	0.048
A-10.	Income from unconsolidated subsidiaries should be shown with other items of income and expenses rather than as a separate item after income taxes	0.171	0.683	0.146

* Fail to accept hypothesis that $p > 0.50$ at .05 level of significance

provide comparison between Canadian and American opinion in this latter regard.

Questions A-1 and A-2, concerning extension of the auditor's function in other areas, however, had been favoured in the American study, though the differences were not statistically significant. The greatest dispersion was on question A-1 which was favoured by 64 per cent of the American CFA's sampled and 52 per cent of the Canadians.

Section B--Income Statement

In this and subsequent sections, the respondent was asked to indicate whether an item was (1) essential, (2) desirable, (3) somewhat desirable, or (4) unnecessary for their analytical purpose. In order that some quantitative analysis might be made of these subjective terms, definitive guidelines were provided for their use. For this study: (1) Essential was to be used for ". . . those items which are absolutely necessary for your purpose. . . . That your analysis is seriously hampered by their absence." (2) Desirable was to be used for ". . . those items which are not absolutely necessary but provide additional information which is useful (but not essential) for your analysis." (3) Somewhat desirable was to be used for ". . . those items which provide information which has only limited usefulness but does facilitate analysis. . . . " (4) The "unnecessary" column was to be used for those items which provide ". . .

little if any insight . . . [and] are not useful . . . ."

To be considered "essential", the information contained in a question must be capable of being statistically inferred to be considered useful by more than 50 per cent of the population of Chartered Financial Analysts. With a confidence coefficient of 0.95, allowing for sampling errors amongst the respondent CFA's, the minimum acceptable sample proportion was 0.6269.[2] At this level there was one chance in twenty, (5%), that an item considered useful by the sample of respondents would not be considered useful if a census of of the complete population was taken. If the population proportion could not be so inferred to exceed 50 per cent at the "essential" level, the item was next considered at the "desirable" level. To be included as "desirable" the question must not have been considered essential, but must be capable of being inferred as being from a population wherein the total of the "essential" and the "desirable" columns would exceed 50 per cent.

Similarly, the questions remaining were tested for inclusion in the "somewhat desirable" category. Those which failed to meet the criteria for inclusion in the third, "somewhat desirable" category, were not included in subsequent analysis, since an insufficient number of respondents thought them useful (i.e., it could not be statistically inferred that 50 per cent, or more, of the population of

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[2]Appendix C, pp. 132-140.

CFA's would consider the item useful).

The focus of attention of the majority of financial statement readers of today is the income statement. In earlier years it was considered to be merely a statement of transition or reconciliation between two consecutive balance sheets Today it is more than an itemized listing of revenues and the expenses incurred to earn those revenues. The income statement is a summation of all that has taken place within and concerning the firm during the current fiscal period.

Sales

The CFA's indicated (Table 4-3) that information concerning the operating revenue of the firm was desirable to them. For the larger multi-product or multi-national firm, their replies suggest that aggregate data is no longer sufficient for meaningful analysis. Individual segments of an enterprise commonly experience varying rates of return, degrees of risk, and opportunities for growth. Knowledge of such segmented data provides the means of improved analysis and appraisal of possible future earnings.

Cost of Goods Sold

For the industrial concern, the major items of expense are to be found in the cost of goods sold section of the income statement. Here are to be found the major

Table 4-3

Sales Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
B-1. a.	Disclosure of dollar sales by component group	0.524	0.952	-
b.	Disclosure of component group sales as a percentage of the company total	.366	.805	-
c.	Disclosure of component group contribution profits	.357	.881	-
d.	Disclosure of component group net operating profit as a percentage of the company total	.415	.878	-
e.	Disclosure of component group return on the assets employed	0.220	0.829	-

- Hypothesis that $p > 0.50$ at .05 level of significance accepted in earlier category

items of concern to both management and analyst--direct labour and material, often the only items of expense which are directly traceable to the product. Table 4-4 shows that the CFA's considered information relating to all items of the cost of goods sold to be desirable. The respondents were near unanimity in their consideration as desirable of the disclosure of depreciation and depletion separately by class of assets.

General Expenses

Table 4-5 shows that the CFA's attach significant importance to the reporting of research and development (R&D) costs as well as the costs of marketing. The one item of information considered by the respondents as only "somewhat desirable" concerned capitalization of the costs associated with the development of new versus existing products.

Other Information

For a firm to be evaluated as a continuing concern, comparable to others in its industry, and with itself over time, it is essential that extraordinary items of income and expense be separately identified. To the extent that this is not done in the statements themselves, the distinction is left to the analysts, who speak imprecisely about "the quality of earnings". Nonrecurring items, as well as

Table 4-4

Cost of Goods Sold
Information Considered Useful by Respondents

Question Number		Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
B-2.	a.	Beginning finished goods inventory	0.171	0.683	-
	b.	Materials, supplies, etc. purchased during the year	.146	.634	-
	c.	Wages, salaries, etc.	.244	.732	-
	d.	Depreciation	.439	.829	-
	e.	Other costs entering into the cost of goods sold	.158	.711	-
B-3.		Separate disclosure of depreciation and depletion	.500	.929	-
B-4.		Disclosure of depreciation and depletion methods by class of assets	0.452	0.905	-

- Hypothesis that $p > 0.50$ at .05 level of significance accepted in earlier category

Table 4-5

General Expense
Information Considered Useful by Respondents

Question Number		Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
B-6.		Separate disclosure of current research and development costs	0.378	0.946	-
	a.	Segregate the research and development costs associated with new product development	.175	.775	-
	b.	Determine the research and development costs associated with the development and improvement of existing products	.150	.650	-
	c.	Determine the research and development costs associated with pure research	.171	.683	-
	d.	Capitalize the costs associated with the development of new and existing products	.125	.450	0.635
B-7.		Disclosure of marketing costs	0.143	0.714	-

- Hypothesis that $p > 0.50$ at .05 level of significance accepted in earlier category

transactions which are atypical of normal activities, should be set forth separately, facilitating their exclusion from the projection of historical earning power.

Table 4-6 indicates the importance the CFA's attach to extraordinary items. They also considered desirable the presentation of an estimate of the effect of the differences between taxation accounting and financial accounting. Details of the amortization of pension plan past-service costs were also considered to be desirable.

The determination of the number of outstanding shares for a period can be of crucial importance given the emphasis which is placed, rightly or wrongly, on the single figure, earnings per share (EPS). Where the number of shares outstanding has remained constant throughout the period there is, of course, no problem. But when share capital transactions have been numerous, an equal number of possible methods of calculation exists. Disclosure in this area, as well as that of the "fully diluted" earnings per share figure, was considered by the CFA's to be essential.

The CFA's were conscious of alternate income tax presentations. Particularly for the effects of timing differences; 74% considered disclosure of income tax effects to be desirable.

Table 4-6

Other Income Statement
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
B-5.	Estimate of the effect in the current year of differences between the accounting method used for financial and tax purposes	0.548	0.881	-
B-8.	Segregation of federal income taxes from other income taxes	.143	.500	0.714
B-9.	Separate disclosure of extraordinary items	.929	-	-
B-10.	Method of determining outstanding shares of stock used in the determination of earnings per share	.810	-	-
B-11.	Methodology used for determining "fully diluted" earnings per share	.760	-	-
B-12.	Disclosure of the period of time over which pension plan past-service costs are charged	0.595	0.952	-

Table 4-6 (continued)

Question Number	Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
B-13. a.	Income taxes estimated to be payable	0.610	0.829	-
b.	Income tax effects of timing differences	.436	.744	-
c.	Income tax effects of operating losses	0.561	0.878	-

- Hypothesis that $p > 0.50$ at .05 level of significance accepted in earlier category

Section C--Balance Sheet

Current Assets

The current assets of a firm are an indicator of its liquidity and the ability of its management to utilize the firm's capital on a short term or interim basis.

The CFA's perceived no advantage to disclosing separately the items such as marketable securities which are alternately shown as the single total, "Cash" (Table 4-7). U.S. respondents considered such a breakdown as only somewhat desirable, but they did consider it useful, whereas the Canadian CFA's clearly rejected it as a positive contribution to their analysis.

Fixed Assets

The capital or fixed assets of a firm provide productive capacity for manufacture and distribution. Table 4-8 shows that the CFA's considered all items of disclosure in this category to be useful, including the separate disclosures of the major classes of fixed assets and their depreciation.

Other Assets

Table 4-9 indicates that the CFA's felt that separate reporting of intangible assets was desirable, as was the reporting of a current year amortization figure. Separate

Table 4-7

Current Asset
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
C-1.	Separate disclosure of cash items	0.048	0.190	0.429*
C-2.	Cost and market value of marketable securities	.595	.857	-
C-3.	Allowance for uncollectible accounts	.190	.762	-
C-4.	Separate disclosure of supplies, raw materials, work in process, and finished goods inventory	.143	.738	-
C-5.	Pricing basis of inventories	.690	-	-
C-6.	Total costs if inventories are priced using the lower of cost or market method	.190	.714	-
C-7.	Method of cost determination	0.548	0.976	-

Table 4-7 (continued)

Question Number	Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
C-8.	Disclosure of the value of the inventory as determined under Fifo when average cost is used (or vice versa)	0.150	0.600	0.825
C-9.	Explanation of the reasons for a refund of income taxes	0.286	0.762	-

* Fail to accept hypothesis that p > 0.50 at .05 level of significance
- Hypothesis accepted in earlier category

Table 4-8

Fixed Asset
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
C-10.	Separate disclosure of major classes of depreciable property	0.238	0.738	-
a.	Separate disclosure of the depreciation relating to the major classes of depreciable property	.162	.676	-
C-11.	Methodology and criteria used to evaluate investment proposals	.024	.366	0.732
C-12.	Estimate of current value if materially different from cost or cost less depreciation	0.143	0.643	-

- Hypothesis that $p > 0.50$ at .05 level of significance accepted in earlier category

Table 4-9

Other Asset
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Checking Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
C-13.	Separate disclosure of the type of prepaid and deferred charges	0.073	0.415	0.805
C-14.	Intangibles reported in a separate section of the balance sheet	0.500	0.833	-
C-15.	Report current year amortization of intangible assets	0.476	0.881	-

- Hypothesis that $p > 0.50$ at .05 level of significance accepted in earlier category

disclosure of deferrals and prepaid items, however, was considered to be only somewhat desirable.

Liabilities

Liabilities are the alternative to additional capital investment on the part of shareholders. Long-term debt is a substitute for additional equity when present shareholders do not wish to dilute their control of a corporation, or when leverage may be favourably employed (i.e., operations returning the firm a profit greater than the cost of the borrowed funds). Short-term debt is used traditionally for short-term purpose, e.g., to provide additional working capital for seasonal activity peaks.

Table 4-10 shows that the CFA's regarded all items as desirable, with the details of convertible debenture conversion privileges being considered essential. Information regarding future payments under capitalized leases was almost unanimously considered desirable; this is consistent with the CFA's reply to question A-11, where there was unanimous agreement that information regarding the obligations under executory contracts should be disclosed.

Shareholders' Equity

The shareholder is the owner of the firm, however minute his individual interest may be. While the holder of preferred shares is, in many respects, in a similar position

Table 4-10

Liability
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
C-16.	Cost of short- and long-term credit	0.238	0.690	-
C-17.	Major elements of security agreements	.310	.810	-
C-18.	Principal provisions of debt agreements	.286	.738	-
C-19.	Conversion provisions of convertible debentures	.738	-	-
C-20.	Future payments required by capitalized leases	.619	.976	-
C-21.	Major provisions of deferred compensation	.238	.786	-
C-22.	Ownership percentage of minority shareholders, by subsidiary	0.286	0.857	-

- Hypothesis that $p > 0.50$ at .05 level of significance accepted in earlier category

to that of a creditor, it is the common shareholder who is the true, residual owner.

Share Capital Accounts Detailed analysis of the capital accounts is an integral facet of the analysis of a firm. Particular emphasis is placed on changes which occurred during the current period. Table 4-11 indicates that all items in this area were considered by the respondents as either essential or desirable.

Stock option plans, wherein the recipient is granted the right to purchase a stated number of shares of the corporation, at a fixed price, within a given period of time, have been popular methods of rewarding employees. The CFA's deemed information concerning such plans to be desirable.

Retained Earnings The retained earnings account comprises, primarily, an accumulation of the net income of prior years to the extent that it has not been distributed in the form of dividends. The CFA's considered information relating to dividends per share, and direct charges (prior period adjustments) to the retained earnings account, as essential to their analyses. Disclosure of the details of transactions in treasury stock, while such transactions are not permitted in many Canadian jurisdictions, were considered desirable. CFA's ranked as essential the information dealing with restrictions concerning the distribution of retained earnings. Such restrictions are most commonly the result of the terms of a long-term debt issue, prohibiting the payment

Table 4-11

Shareholders' Equity
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
C-23.	Explanation of changes in the number of outstanding shares of stock	0.619	0.952	-
C-24.	Number of authorized shares of each type of stock	.905	-	-
C-25.	Number of issued shares of each type of stock	.619	.905	-
C-26.	Par or stated value of all stock	.524	.762	-
C-27.	Call provisions of preferred stock	.571	.881	-
C-28.	Explanation of changes in the contributed surplus (premium/discount on share capital) account	.436	0.795	-
C-29.	Cash dividends per share	.667	-	-
C-30.	Explanation of direct charges to the retained earnings account	0.810	-	-

Table 4-11 (continued)

Question Number	Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
C-31.	Restatement of prior year's information if a pooling of interests takes place	0.762	-	-
C-32.	Indication of the purchase price and number of shares of each type of stock held in the treasury	.390	0.854	-
C-33.	Relationship of the option price to market price in stock options issued during the year	.452	.857	-
C-34.	Changes in stock option plans during the year	.476	.905	-
C-35.	Number of shares of stock exercisable under a stock option plan at the end of the year	.571	0.929	-
C-36. a.	Indication of the source of restrictions on retained earnings	.667	-	-
b.	Indication of the duration of restrictions on retained earnings	.683	-	-
c.	Indication of the amount of the restrictions on retained earnings	0.683	-	-

- Hypothesis that $p > 0.50$ at .05 level of significance accepted in earlier category

of excess dividends or establishing a maximum value for the debt/equity ratio. Government, though, can also be a source of restrictions; many U.S. corporations were restricted in their 1972 dividend distributions by the Phase II controls then in effect.

Section D--Funds Statement

Questions dealing with the statement of funds were kept to a minimum as the majority of the items therein were earlier reported upon as they first appeared in either the income statement or the balance sheet.

The CFA's agreed that the funds statement does provide important financial information not readily discernible from the balance sheet and income statement (Table 4-12). Their consideration of the funds statement as essential is consistent with question A-13 wherein they considered that the lack of a funds statement seriously hampers their analyses. The CFA's clearly preferred "Funds" to be defined as working capital rather than as cash or net quick assets.

Summary

Analysis of the questionnaire returns indicates that the Chartered Financial Analysts believe that the items of information surveyed are generally useful in their analyses. Not that the CFA's seek information for information's sake; their responses indicate definite preferences as to the

Table 4-12

Funds Statement
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Checking: Essential	Essential, and Desirable	Essential, Desirable, and Somewhat Desirable
D-1.	Usefulness of information provided by funds statement	0.756	-	-
a.	"Funds" defined as working capital	.744	-	-
b.	"Funds" defined as net quick assets	.051	0.179	0.205 *
c.	"Funds" defined as cash	.128	.256	0.333 *
D-2.	Funds statement included in the auditor's opinion	.738	-	-
D-3.	Segregation between the replacement of plant and equipment and the expansion of plant and equipment	0.225	0.750	-

* Fail to accept hypothesis that $p > 0.50$ at .05 level of significance
\- Hypothesis accepted in earlier category

manner and format of presentation for specific items. They also identified certain items of information as making no significant contribution to their analyses.

In Section A, concerning the scope of the annual report; of a total of twenty-eight items, or sub-items, of information, fifteen (54%) were desired by a significant proportion of the respondents while thirteen (46%) were not so desired. Of the thirteen items that were not desired, twelve were concerned with two areas; extension of the auditor's opinion, to cover items that are not presently included, and the presentation of budgetary data.

The remaining sections dealt with a total of seventy-two items, of which fifteen (20%) were considered essential, fifty (70%) as desirable, five (7%) as somewhat desirable, and two (3%) were not considered useful. Clearly, the CFA's do not rank all items as being of equal importance, and have concern for the quality as well as the quantity of disclosure in annual reports.

CHAPTER 5

DISCLOSURE OF THE DESIRED INFORMATION IN ANNUAL REPORTS

The items of information deemed useful by the CFA's (Chapter 4) were compared to a sample of corporate annual reports to determine the proportion of firms disclosing the desired items of information. For each item the proportion of the respondents that considered it useful is stated, and, for Sections B. C, and D, whether the CFA's considered it essential (E), desirable (D), or only somewhat desirable (SD).

The figures for disclosure in the U.S. are, in all instances, from the 1972 study of R.L. Cattanach.[1] Canadian figures are based on the evaluation of a random sample of 50 annual reports for the fiscal year 1971, drawn from the Financial Post "Top 100 Club", as detailed in Chapter 3. The right-hand column (Cdn.-U.S.) contains the remainder obtained by subtraction of the U.S. proportion from the Canadian proportion. This figure is preceded by a minus sign in those instances where the U.S. proportion exceeded the Canadian proportion. Where no companion question existed in Cattanach's study this omission is indicated by

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[1]R.L. Cattanach, "An Inquiry Into the Informational Needs of Stockholders and Potential Investors," (unpublished Doctoral dissertation, Arizona State University, 1972).

period leaders (..) in the "U.S." and the "Canadian-U.S." columns opposite the particular question.

Tests for statistical significance of the dispersion between the sample proportions were conducted using formulas (C-6) and (C-7), Appendix C. Where the proportion of firms disclosing a particular item of information differed significantly between the Canadian and U.S. samples, a dagger (†) was placed to the right of the dispersion figure. In these instances the magnitude of the difference is sufficient that it would be reasonable to fail to accept the null hypothesis that there is no difference in the true proportions in the two populations (Canada and the U.S.).

Section A--General

Only three of the items contained in this section of the questionnaire were disclosed in a majority of the Canadian annual reports, as shown in Table 5-1. Funds statements, which are now compulsory in both Canada and the U.S., were contained in each of the fifty reports. The names of subsidiary companies were provided in 60 per cent of the reports. Disclosure relative to executory contracts was made in 94 per cent of the reports. Canadian disclosure, as compared to U.S., was significantly greater in two areas: (1) the percentage of ownership in a subsidiary company, and (2) the identification of the officers and directors of the subsidiary company. Of the remaining items, with the

Table 5-1

Disclosure of General Information
Considered Useful by Respondents

Question Number		Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
				U.S.	Canadian	Cdn.-U.S.
A-3.		Disclosure of the accounting principles used by a firm	0.976	0.010	0.020	0.010
A-4.	a.	Name(s) of subsidiaries	1.000	0.450	0.600	0.150
	b.	Lines of business	1.000	0.240	0.340	0.100
	c.	Operating revenues	0.952	0.060	0.120	0.060
	d.	Operating profits	0.976	0.060	0.060	0.000
	e.	Accounting basis of the major classes of assets	1.000	0.010	0.000	-0.010
	f.	Ownership percentage of the parent company	1.000	0.050	0.220	0.170 †
	g.	Officers and directors	0.833	0.000	0.120	0.120 †
	h.	Method of allocating joint costs among the subsidiaries	0.929	0.000	0.000	0.000
A-11.		Disclosure of the rights and obligations that arise due to executory contracts	1.000	1.000	0.940	-0.060
A-12.		Quantity of unfilled orders	0.952	0.060	0.020	-0.040
A-13.		Funds statement	0.714	0.970	1.000	0.030

† Fail to accept hypothesis that $p_1 = p_2$ at .05 level of significance

exception of the disclosure of the lines of business of subsidiary companies (34%), the desired information was only rarely provided in the reports.

Table 5-2 deals with the manner of presentation of specific items of information. While the CFA's clearly preferred the minority shareholders' share of income to be listed separately, this was done in little more than one-half of the reports surveyed. The CFA's felt less strongly regarding the separate listing of income from unconsolidated subsidiaries; the degree of report disclosure was also less.

Section B--Income Statement

Section B concerned itself with the income statement. For ease of presentation, the items were grouped under four headings: sales, cost of goods sold, general expenses, and other income statement information.

Sales

Table 5-3 details the sales information indicated by the CFA's as being desirable for their analyses. In no instance was the information provided by a majority of the firms surveyed. Canadian disclosure was, with one exception, less complete than that of the U.S. It is possible that some of the firms surveyed derive all or substantially all of their revenue from one product or line of products, and therefore could not segregate their income by component group.

Table 5-2

Disclosure of General Information in the Manner Which Respondents Thought the Information Should be Disclosed

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
			U.S.	Canadian	Cdn.-U.S.
A-9.	When minority shareholder interests exist, their share of profits should be listed with other items of expense rather than listed as a separate cost after income taxes.				
	Proportion desiring listing as expense	0.071	0.654	0.483	-0.171
	Proportion desiring a separate listing	0.881	0.346	0.517	0.171
A-10.	Income from unconsolidated subsidiaries should be listed with other items of income and expense rather than as a separate item after income taxes.				
	Proportion desiring listing with other items	0.171	0.458	0.571	0.113
	Proportion desiring a separate listing	0.683	0.542	0.429	-0.113

Table 5-3

Disclosure of Sales
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information: U.S.	Canadian	Cdn.-U.S.
B-1. a.	Disclosure of dollar sales by component group	0.952 (D)	0.400	0.240	-0.160
b.	Disclosure of component group sales as a percentage of the company total	.805 (D)	.330	.180	- .150
c.	Disclosure of component group contribution profits	.881 (D)	.150	.100	- .050
d.	Disclosure of component group net operating profit as a percentage of the company total	.878 (D)	.150	.060	- .090
e.	Disclosure of component group return on the assets employed	0.829 (D)	0.010	0.020	0.010

D - Disclosure of the information considered desirable

It was impossible to determine, on the basis of the reports alone, which firms might not be comprised of separate, divisible, groups; an assumption was made that a breakdown of sales by component group was possible for all firms. This assumption was not unrealistic given the comments of the directors which accompanied the financial statements themselves, and the fact that of the 50 Canadian corporate annual reports surveyed only three reported sales of less than $100 million.

Cost of Goods Sold

Information concerning the cost of goods sold that was considered desirable by the CFA's is shown in Table 5-4. While the proportion of CFA's favouring an item ranged from 63 per cent to 82 per cent, the percentage of firms reporting the items was constant at zero, Canadian as well as U.S. While some firms did attempt an allocation of the sales dollar, none provided a segregation of the cost of goods sold account.

General Expenses

The Canadian annual reports were significantly more complete in their disclosure of depreciation and depletion figures as indicated by Table 5-5. It is possible that for Question B-4 (Disclosure of depreciation and depletion methods by class of assets) Cattanach sought highly detailed

Table 5-4

Disclosure of Cost of Goods Sold
Information Considered Useful by Respondents

Question Number		Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
				U.S.	Canadian	Cdn.-U.S.
B-2.	a.	Beginning finished goods inventory	0.683 (D)	0.000	0.000	0.000
	b.	Materials, supplies, etc. purchased during the year	.634 (D)	.000	.000	.000
	c.	Wages, salaries, etc.	.732 (D)	.000	.000	.000
	d.	Depreciation	.829 (D)	.000	.000	.000
	e.	Other costs entering into the cost of goods sold	0.711 (D)	0.000	0.000	0.000

D - Disclosure of the information considered desirable

Table 5-5

Disclosure of General Expense
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
			U.S.	Canadian	Cdn.-U.S.
B-3.	Separate disclosure of depreciation and depletion	0.929 (D)	0.000	0.545	0.545 †
B-4.	Disclosure of depreciation and depletion methods by class of assets	.905 (D)	.000	.480	.480 †
B-6.	Separate disclosure of current research and development costs	.946 (D)	.190	.020	- .170 †
a.	Segregate the research and development costs associated with new product development	.775 (D)	.010	.020	.010
b.	Determine the research and development costs associated with the development and improvement of existing products	.650 (D)	.020	.020	.000
c.	Determine the research and development costs associated with pure research	.683 (D)	.010	.000	- .010
d.	Capitalize the costs associated with the development of new and existing products	.635 (SD)	..	.020	..
B-7.	Disclosure of marketing costs	0.714 (D)	0.000	0.080	0.080

D - Disclosure of the information considered desirable
SD - Disclosure of the information considered somewhat desirable
† - Fail to accept hypothesis that $p_1 = p_2$ at .05 level of significance
.. - Comparable U.S. figures not available

information concerning methodology and therefore found no firm which met his criteria. In appraisal of the Canadian reports, however, a modicum of detail was accepted as comprising disclosure. For Question B-3 (separate disclosure of depreciation and depletion), however, no such explanation suggests itself. To "separately disclose" is a readily identifiable attribute, apparently the American firms did not so disclose.

The assumption was made in analyzing this section that all of the firms surveyed engaged in research and development to some extent, and similarly that all incurred marketing costs in getting their products to the consumer. Disclosure in both these areas was minimal. Separate reporting of research and development costs was the item most desired by CFA's, 92 per cent indicating this information as desirable for their analyses. Only one of the fifty Canadian firms (2%) disclosed their research and development costs as compared to 19 per cent of the U.S. firms, a statistically significant difference.

Other Information

The Canadian firms varied widely in the degree of disclosure of other income statement information. Table 5-6 shows that in some instances Canadian disclosure was much more complete than was the American, while for other items the reverse was true. Canadian disclosure of the effect of

Table 5-6

Disclosure of Other Income Statement
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
			U.S.	Canadian	Cdn.-U.S.
B-5.	Estimate of the effect in the current year of differences between the accounting method used for financial and tax purposes	0.881 (D)	0.745	0.960	0.215 †
B-8.	Segregation of federal income taxes from other income taxes	.714 (SD)	.133	.000	- .133 †
B-9.	Separate disclosure of extraordinary items	.929 (E)	.695	.906	.211 †
B-10.	Method of determining outstanding shares of stock used in the determination of earnings per share	.810 (E)	.720	.300	- .420 †
B-11.	Method used for determining "fully diluted" earnings per share	.762 (E)	.647	.280	- .367 †
B-12.	Disclosure of the period of time over which pension plan past-service costs are charged	.952 (D)	.723	.888	.165 †
B-13. a.	Income taxes estimated to be payable	.829 (D)	.958	1.000	.042
b.	Income tax effects of timing difference	.744 (D)	.463	.900	.437 †
c.	Income tax effects of operating losses	0.878 (D)	0.579	1.000	0.421 †

E - Disclosure of the information considered essential
D - Disclosure of the information considered desirable
SD - Disclosure of the information considered somewhat desirable
† - Fail to accept hypothesis that $p_1 = p_2$ at .05 level of significance

differences between financial and tax accounting methods was significantly greater than for the U.S. firms, as also was the case for pension plan past-service costs. The differentiation between federal and local income taxes being less in Canada than it is in the United States, none of the Canadian firms included this breakdown in their report.

Canadian disclosure was most notably deficient in the area of the methodology of the calculation of earnings per share (EPS) figures. This information, considered essential by the CFA's, was disclosed in less than one-third of the reports surveyed. Amongst the U.S. firms, approximately two-thirds disclosed the methodology used, a statistically significant difference.

The CFA's considered disclosure of information concerning income taxes payable, timing differences, and the tax effects of operating losses to be desirable. Canadian firms were near universal in their presentation of this information.

Section C--Balance Sheet

Section C dealt with items of information contained in the balance sheet. The items were grouped into five areas: current assets, fixed assets, other assets, liabilities, and shareholders' equity.

Current Assets

Table 5-7 shows Canadian disclosure of information regarding current assets to be generally less complete than that of the U.S. firms. For three of the eight items enumerated, Canadian disclosure was less extensive. While the basis of inventory pricing (lower of cost or market, cost, market, etc.) was disclosed by 94 per cent of the Canadian firms; only 28 per cent disclosed the method of cost determination (i.e., the assumed flow pattern, Fifo, average, weighted average) as compared to 84 per cent of the U.S. firms.

Fixed Assets

Only two-thirds of the firms separately disclosed the major classes of depreciable property, according to Table 5-8. This was a statistically significant decrease from the U.S. disclosure (97%). No firm, Canadian or American, disclosed either the methodology used to evaluate investment proposals nor gave an estimate of current value for fixed assets.

Other Assets

Table 5-9 shows that the Canadian firms sampled disclosed information relating to intangible assets and their amortization more often than did those in the U.S. Canadian firms, however, were not as prone to disclose details of

Table 5-7

Disclosure of Current Asset
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
			U.S.	Canadian	Cdn.-U.S.
C-2.	Cost and market value of marketable securities	0.857 (D)	0.726	0.558	-0.168 †
C-3.	Allowance for uncollectible accounts	.762 (D)	.720	.120	- .600 †
C-4.	Separate disclosure of supplies, raw materials, work in process and finished goods inventory	.738 (D)	.570	.400	- .170
C-5.	Pricing basis of inventories	.690 (E)	.970	.940	- .030
C-6.	Total costs if inventories are priced using the lower of cost or market method	.714 (D)	.010	.000	- .010
C-7.	Method of cost determination	.976 (D)	.840	.280	- .560 †
C-8.	Disclosure of the value of the inventory as determined under Fifo when average cost is used (or vice versa)	.825 (SD)	.000	.020	.020
C-9.	Explanation of the reasons for a refund of income taxes	0.762 (D)	0.571	0.500	-0.071

E - Disclosure of the information considered essential
D - Disclosure of the information considered desirable
SD - Disclosure of the information considered somewhat desirable
† - Fail to accept hypothesis that $p_1 = p_2$ at .05 level of significance

Table 5-8

Disclosure of Fixed Asset
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
			U.S.	Canadian	Cdn.-U.S.
C-10.	Separate disclosure of major classes of depreciable property	0.738 (D)	0.970	0.660	-0.310 †
a.	Separate disclosure of the depreciation relating to the major classes of depreciable property	.676 (D)	.050	.320	.270
C-11.	Methodology and criteria used to evaluate investment proposals	.732 (SD)	.000	.000	.000
C-12.	Estimate of current value if materially different from cost,or cost less depreciation	0.643 (D)	0.000	0.000	0.000

D - Disclosure of the information considered desirable
SD - Disclosure of the information considered somewhat desirable
† - Fail to accept hypothesis that $p_1 = p_2$ at .05 level of significance

Table 5-9

Disclosure of Other Asset
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information U.S.	Canadian	Cdn.-U.S.
C-13.	Separate disclosure of the type of prepaid and deferred charges	0.805 (SD)	0.237	0.140	-0.097
C-14.	Report intangibles in a separate section of the balance sheet	0.833 (D)	0.052	0.220	0.168 †
C-15.	Report current year amortization of intangible assets	0.881 (D)	0.082	0.180	0.098 †

D - Disclosure of the information considered desirable
SD - Disclosure of the information considered somewhat desirable
† - Fail to accept hypothesis that $p_1 = p_2$ at .05 level of significance

prepaid expenses and deferred charges, an item considered by the CFA's as only somewhat desirable.

Liabilities

The Canadian firms were, for three of the seven liability items, more complete in their disclosure. Table 5-10 shows that 96 per cent of the firms sampled disclosed the cost of debt. Generally this applied only to long-term debt. The cost of short-term credit was only rarely disclosed by either the Canadian or the U.S. firms.

Appraisal of the completeness, or the degree of disclosure, of detail concerning finance contracts and compensation plans was made more difficult by the fact that firms may have disclosed part, rather than all, of the information. The assumption made was that for those firms to which a given item was clearly applicable (e.g., many had no outstanding debenture issues nor debt of any kind), disclosure of any part of the agreement was considered to represent disclosure of the whole. This assumption was necessitated by the fact that it was virtually impossible to have determined whether or not the provisions that were disclosed represented all of the major issues of the agreement. For instance, with regard to deferred compensation plans; most firms detailed the current contribution to the pension and profit sharing funds, as well as reconciling changes to the stock option plan(s). None of

Table 5-10

Disclosure of Liability
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
			U.S.	Canadian	Cdn.-U.S.
C-16.	Cost of short- and long-term credit	0.690 (D)	0.856	0.960	0.104 †
C-17.	Major elements of security agreements	.810 (D)	.410	.577	.167
C-18.	Principal provisions of debt agreements	.738 (D)	.708	.739	.031
C-19.	Conversion provisions of convertible debentures	.738 (E)	.873	1.000	.127 †
C-20.	Future payments required by capitalized leases	.976 (D)	.706	1.000	.294 †
C-21.	Major provisions of deferred compensation plans	.786 (D)	.887	.939	.052
C-22.	Ownership percentage of minority shareholders, by subsidiary	0.857 (D)	0.271	0.194	-0.077

E - Disclosure of the information considered essential
D - Disclosure of the information considered desirable
† - Fail to accept hypothesis that $p_1 = p_2$ at .05 level of significance

the firms, Canadian or U.S., detailed the major operating provisions of their employee benefit programs.

The one item of liability information considered essential by the CFA's, the conversion provisions of convertible debentures, was disclosed by all of the Canadian firms surveyed to whom the item was applicable. Future payments under capitalized leases were also fully disclosed. In addition there were nine firms (18%) that had not capitalized the lease obligation but did, elsewhere in the report, make mention of the future payments required.

Shareholders' Equity

Only in the reporting of the call provisions of preferred stock (78%) was the rate of disclosure of information concerning capital stock less than 100 per cent, per Table 5-11. While in several instances the details of changes to share capital could only be pieced together from explanations provided in different areas or footnotes of the report, it is noteworthy that in one out of every four of the U.S. statements such changes in the outstanding shares could not be reconciled by reference to information provided in the annual report.

Canadian firms were less informative concerning cash dividends per share; close to one-half left the arithmetic to the reader. Statistically significant was the increased disclosure of the number of shares currently

Table 5-11

Disclosure of Shareholders' Equity
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
			U.S.	Canadian	Cdn.-U.S.
C-23.	Explanation of changes in the number of outstanding shares of stock	0.952 (D)	0.750	1.000	0.250 †
C-24.	Number of authorized shares of each type of stock	.905 (E)	.990	1.000	.010
C-25.	Number of issued shares of each type of stock	.905 (D)	.980	1.000	.020
C-26.	Par or stated value of all stock	.762 (D)	1.000	1.000	.000
C-27.	Call provisions of preferred stock	.881 (D)	.857	.785	- .072
C-28.	Explanation of changes in the contributed surplus (premium/discount on share capital) account	.795 (D)	.956	.800	- .156
C-29.	Cash dividends per share	.667 (E)	.904	.560	- .344 †
C-30.	Explanation of direct charges to the retained earnings account	.810 (E)	.990	1.000	.010
C-31.	Restatement of prior year's information if a pooling of interests takes place	.762 (E)	..	0.000	..

Table 5-11 (continued)

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
			U.S.	Canadian	Cdn.-U.S.
C-32.	Indication of the purchase price and number of shares of each type of stock held in the treasury	0.854 (D)	0.000	0.000	0.000
C-33.	Relationship of the option price to market price in stock options	.857 (D)	.726	.630	- .096
C-34.	Changes during the year in stock option plans	.905 (D)	.987	.903	- .084
C-35.	Number of shares of stock exercisable under a stock option plan at the end of the fiscal year	.929 (D)	.588	.935	.347 †
C-36. a.	Indication of the source of restrictions on retained earnings	.667 (E)	.938	1.000	.062
b.	Indication of the duration of restrictions on retained earnings	.683 (E)	.092	.210	.118 †
c.	Indication of the amount of the restrictions on retained earnings	0.683 (E)	0.179	0.736	0.557 †

E - Disclosure of the information considered essential
D - Disclosure of the information considered desirable
† - Fail to accept hypothesis that $p_1 = p_2$ at .05 level of significance
·· - Comparable U.S. figures not available

exercisable under an option plan (93% versus 58%). The area of restrictions to retained earnings saw substantially greater Canadian disclosure. The least changed item, provision of information concerning the duration of restrictions, more than doubled (9% to 21%) while information concerning the amount of the restrictions was given four times as often.

Section D--Funds Statement

The funds statement was deemed essential by the CFA's and was included in the annual reports of all the firms surveyed (Table 5-12), in keeping with prescribed Canadian practice. None of the Canadian reports provided a segregation of funds for purpose of expansion, as opposed to replacement, of capital assets. Only one of the fifty firms defined "Funds" as cash; the other forty-nine presented a statement of the sources and applications of working capital.

Summary

Generally, there appears a positive correlation between the desirability of an item of information and its frequency of disclosure. Of the fifteen items ranked by the CFA's as essential, eleven (73%) were disclosed in more than fifty per cent of the reports surveyed. Of the forty-nine items deemed desirable, only twenty-two (45%)

Table 5-12

Disclosure of Funds Statement
Information Considered Useful by Respondents

Question Number	Information	Proportion of Respondents Considering the Information Useful	Proportion of Firms Disclosing the Information		
			U.S.	Canadian	Cdn.-U.S.
D-1.	Usefulness of information provided by funds statement	0.756 (E)	0.970	1.000	0.030
a.	"Funds" defined as working capital	.744 (E)	..	.980	..
D-2.	Funds statement covered by the auditor's opinion	.738 (E)	0.990	1.000	0.010
D-3.	Segregation between the funds for replacement of plant and equipment and the expansion of plant and equipment	.750 (D)	0.030	0.000	-0.030

E - Disclosure of the information considered essential
D - Disclosure of the information considered desirable
.. - Comparable U.S. figures not available

were disclosed in more than fifty per cent of the reports. None of the five items deemed only somewhat desirable was disclosed by more than 14 per cent of the firms.

Disclosure of balance sheet information was generally superior to that of income statement items. The total proportions, by desirability rating, of the items disclosed in a majority of the annual reports surveyed were:

	Income Statement	Balance Sheet
Essential (E)	33%	78%
Desirable (D)	27%	62%

There were twenty-seven instances in which the difference between the proportion of Canadian and American firms disclosing an item of information was statistically significant (i.e., it was reasonable to fail to accept the hypothesis that there is no real difference in the two populations, $p_1 = p_2$). In eighteen of the twenty-seven instances, Canadian disclosure was greater than that of the U.S. firms surveyed.

The difference between the two samples (Canada-U.S.) was greatest in the following areas:

Information	Percentage of Firms Disclosing the Information	
	U.S.	Canada
Separate disclosure of depreciation and depletion	0	54
Disclosure of depreciation and depletion method by class of assets	0	48
Allowance for uncollectable accounts	72	12
Method of inventory cost determination	84	28
Indication of the amount of the restrictions on retained earnings	17	73

The findings suggest that disclosure by the Canadian firms surveyed was more complete than that of the American firms. Where the difference in disclosure of an item of information was statistically significant, Canadian firms twice as often (18/27 versus 9/27) exhibited the greater degree of disclosure.

The correlation between desirability and disclosure may be a function of the desire of management to satisfy the desires of users, or the CFA's may tend to regard the information which they normally receive as being essential, while that which is only rarely provided is considered to be of lesser importance. There can be but little doubt that the respondents have been conditioned by the existing financial environment. Yet, in many areas the analysts clearly express a desire for an item of information, state that it is useful to their analyses, yet not a single firm provides the information in its annual report. Clearly, in these areas there exists opportunity for improvement to the disclosure in corporate annual reports.

CHAPTER 6

SUMMARY, CONCLUSION, AND RECOMMENDATIONS FOR FURTHER STUDY

Comparison of items of financial disclosure deemed useful by Chartered Financial Analysts with a sample of corporate annual reports suggests that annual report disclosure is inadequate insofar as the information needs of CFA's and, hence, shareholders and investors are concerned.

Summary

Corporate financial reports are often criticized for failing to provide users with information that they can rely on as a consistent measure of corporate performance and progress. The question was posed: To what extent is the information requisite to evaluation of corporate economic performance disclosed in corporate annual reports? To answer this question procedures were designed to: (1) survey the expressed informational needs of a select group of users of corporate annual reports, and (2) determine the extent to which the users' requirements were met by published annual reports.

Research Design and Procedure

Corporate annual reports represent the principal external financial communication of the firm. They are generally thought to be prepared to satisfy primarily the needs of stockholders and investors. A procedure first to identify these needs and second to measure how well these needs are satisfied by current annual reports was developed.

Due to the size of the stockholder group and the problem of identification of individual members within the group, direct assessment of stockholders' needs was deemed impractical. Similarly, determination of all of the items of information that stockholders believed to be useful was infeasible. Stockholders and investors are not represented by any single organization that could serve as their proxy to make their needs known. Professional securities analysts, however, comprise a group whose interests and needs are closely aligned with those of the individual investor. Thus, this group may be regarded as spokesmen or surrogates for stockholders and other groups of interested investors.

Viewing professional analysts as proxies for individual investors is possible because of the inherent complexity of financial statement analysis, which suggests that professional assistance is prerequisite to intelligent interpretation of financial reports. Most individual and institutional investors utilize the results of professional security analysis in making investment decisions because they personally lack the requisite technical expertise and experience. This is not to suggest that professional analysts are the primary group for whom financial statements are prepared; rather it is to recognize that for an individual investor to make an informed investment decision, he requires the same type of information as does the professional analyst. Hence, if the needs of the most sophisticated of users can be met, other investors shall most likely be provided with at least as much information as they can effectively utilize.

The selection of Chartered Financial Analysts as surrogates for the individual investors rested largely on their competence as users of financial reports, and their knowledge of the accounting practices involved in the preparation of annual reports. To obtain the CFA designation a person must complete a formal training program, which includes a series of three examinations, and have demonstrated competence in the fields of accounting and financial statement analysis. Thus the CFA occupies a unique position--knowledgeable of the problems of the information supplier as well as of the problems of the user.

To determine the items of information that CFA's consider useful to their analyses, a questionnaire was prepared, based on one used in a 1971 American study (Cattanach). The questionnaire encompassed the major items of information presently disclosed in published financial statements as well as items that have been seriously suggested, in the current literature, for disclosure. A copy of the questionnaire was mailed to each of the 203 CFA's resident in Canada.

The first section of the questionnaire considered items that are either not currently required to be disclosed in annual reports, or, if disclosed, are not presently included in the auditor's opinion. The intent was to determine: (1) whether the information should be disclosed, (2) if presently disclosed, whether disclosure should be expanded, or (3) whether the scope of the attest function should be extended. The second, third and fourth sections concerned the income statement, the balance sheet, and the funds statement, respectively. In these sections the respondent was asked whether he regarded disclosure of the particular items of information to be essential, desirable, somewhat desirable, or unnecessary. Since these terms may convey different meaning to different individuals, definitional guidelines were provided in the questionnaire. The emphasis in all sections of the questionnaire was *not* on what *is* disclosed, or *how* the information should be disclosed, but rather on what *should be* disclosed.

Analysis

Tabulation of the returned questionnaires indicated that the CFA's desired virtually all of the items of disclosure presented to them for their consideration. The only items not considered useful for their analytical purpose concerned: extension of the auditor's opinion to include such items as the financial highlights, presentation of budgetary data, and the definition of "Funds" as other than working capital. Cross-cultural comparisons were made with Cattanach's U.S. study. While some differences did appear between the desires of the Canadian and the U.S. CFA's none were statistically significant at the 0.05 level.

To determine the extent to which the desires of the CFA's were being met by current practice, a sample of fifty corporations was drawn from the Financial Post "Top 100 Club" and their 1971 annual reports were analyzed. The objective of the analysis was not to determine how well each of the statements fulfilled the needs of the user, but rather to determine the percentage of the firms disclosing the items of information deemed useful by the CFA's. No attempt was made to assess the adequacy of disclosure of each of the annual reports. All that could be said was that a report disclosed "x" per cent of the desired items of information. While such a statement might be of interest it would be misleading in that it would fail to recognize that not all items possess an equal degree of utility.

The annual reports surveyed failed to provide much of the information required by the statement users. The findings of the study suggest that disclosure by the Canadian firms surveyed was less deficient than that of the U.S. firms. Of twenty-seven instances in which the difference between the two samples was statistically significant, Canadian disclosure was the more complete in eighteen instances, twice as often as for the U.S. firms (18/27 versus 9/27).

Only rarely was the proportion of firms disclosing an item of information greater than the proportion of the CFA's who had considered the item useful. Disclosure of income statement information was materially less extensive than was disclosure of balance sheet items. This was particularly true of the sales and cost of goods sold sections where a total of seventeen items were ranked by the CFA's as desirable. Only three of the seventeen were disclosed by more than 20 per cent of the firms, while six of the items were not disclosed by any firm surveyed.

In general, the findings support the conclusion that the informational needs of shareholders and investors as indicated by their representatives--Chartered Financial Analysts--are not being met by current annual reports.

Conclusion

The findings of the study would appear to support the conclusion that corporate annual reports fail to provide the user with sufficient information for evaluation of corporate economic performance. Of the items of information that were deemed useful by the CFA's one in three was disclosed by less than 50 per cent of the firms surveyed.

General Information

The items of information considered useful by the CFA's that were disclosed in less than 50 per cent of the annual reports surveyed, accompanied by their disclosure percentage, were:

1. The accounting principles adopted by a firm, 2 per cent.

2. Subsidiaries' lines of business, 34 per cent.

3. Subsidiaries' operating revenues, 12 per cent.

4. Subsidiaries' operating profit, 6 per cent.

5. The accounting basis of the major classes of assets of subsidiaries was disclosed by none of the firms surveyed.

6. Ownership percentage of subsidiary held by the parent company, 22 per cent.

7. Identification of officers and directors of subsidiaries, 12 per cent.

8. The method of allocating joint costs among the subsidiaries was disclosed by none of the firms surveyed.

9. Quantity of unfilled orders, 2 per cent.

10. Separate listing of income from unconsolidated subsidiaries, rather than inclusion with other items of income and expense, 43 per cent.

Income Statement

The items of information that were disclosed in less than 50 per cent of the annual reports surveyed, classified according to their ranking by the CFA's as essential, desirable, somewhat desirable, are:

Essential

1. The method of determining the number of outstanding shares of stock used in the determination of earnings per share, 30 per cent.

2. The method used for determining "fully diluted" earnings per share, 28 per cent.

Desirable

1. Dollar sales by component group, 24 per cent.

2. Component group sales as a percentage of the company total, 18 per cent.

3. Component group contribution profits, 10 per cent.

4. Component group net operating profit as a percentage of the company total, 6 per cent.

5. Component group return on assets employed,

2 per cent.

6. Depreciation and depletion methods by class of assets, 48 per cent.

7. Segregation of current research costs, 2 per cent.

8. Segregation of research and development costs associated with new product development, as distinct from existing products, 2 per cent.

9. Research and development costs associated with pure research was disclosed by none of the firms surveyed.

10. Marketing costs, 8 per cent.

11. Information detailing the cost of goods sold figure was disclosed by none of the firms surveyed.

Somewhat Desirable

1. Capitalization of costs associated with the development of new and existing products, 2 per cent.

2. Segregation of federal income taxes from other income taxes was disclosed by none of the firms surveyed.

Balance Sheet

The items of information in the area of the balance sheet that were disclosed in less than 50 per cent of the reports surveyed, classified according to their ranking by the CFA's, were:

Essential

1. The duration of restrictions on retained earnings, 21 per cent.

Desirable

1. Allowance for uncollectible accounts, 12 per cent.

2. Separate disclosure of supplies, raw materials, work in process, and finished goods inventories, 40 per cent.

3. Total cost, when inventories are priced using the lower of cost or market method, was disclosed by none of the firms surveyed.

4. Method of inventory cost determination, 28 per cent.

5. Segregation of depreciation amongst the major classes of depreciable property, 32 per cent.

6. Estimation of current value of an asset if materially different from cost, or cost less depreciation, was made by no firm surveyed.

7. Reporting of intangibles in a separate section of the balance sheet, 22 per cent.

8. The dollar amount of current year amortization of intangible assets, 18 per cent.

9. Ownership percentage of minority shareholders, by subsidiary, 19 per cent.

Somewhat Desirable

1. Inventory value as determined under Fifo when average cost used (or vice versa), 2 per cent.

2. The methodology and criteria used to evaluate investment proposals was disclosed by none of the firms

surveyed.

3. Separate disclosure of the type of prepaid and deferred charges, 14 per cent.

Funds Statement

Desirable

Segregation between the funds for replacement versus the expansion of plant and equipment was made by none of the firms surveyed.

These demonstrated instances of the inadequacy of corporate annual report disclosure form the basis for the conclusion of the study that annual reports often fail to satisfy the informational needs of Chartered Financial Analysts, and therefore, shareholders and investors. The foregoing items represent only the most obvious inadequacies; disclosure of other items might also be considered to be inadequate, particularly if the criteria of adequacy (50 per cent or greater disclosure) were changed. A larger percentage would obviously result in the disclosure of many additional items of information being regarded as inadequate.

Recommendations for Further Study

The findings of the study suggest the usefulness of ascertaining the opinions of the users of annual reports as to the nature, extent, and importance of problems in financial reporting. The CICA's recently-formed Accounting

Research Committee, for example, might give consideration to this type of information in its efforts to resolve the problems faced by the accounting profession.

The study was conducted under a number of constraints, the first of which was distribution of the questionnaire only to CFA's; the needs of other users of annual reports were consequently not considered in the study. Determination of the informational needs of these other users, and comparison of their needs with those of stockholders and investors, could provide an insight into how well annual reports fulfill the needs of all major groups of users, rather than for only one select group.

The study considered only the needs of CFA's as users of financial reports in determining whether or not annual report disclosure was adequate. No attempt was made to obtain the views of those groups directly influencing financial statement disclosure--the CICA, stock exchanges, government, and management--to determine whether the desired information was readily available at reasonable cost, or if disclosure might possibly violate a firm's competitive position.

The study might also be expanded to cover one or more sections of the questionnaire in greater detail. For example: Why was budgetary data considered useful by less than 40 per cent of the respondent CFA's when it is generally agreed that a major objective of financial analysis is to obtain an insight into a firm's future prospects? Also, do items deemed essential by the CFA's actually possess greater utility than information regarded as desirable, or somewhat desirable; or is the difference to be accounted for by the fact that the respondents consider information which they are accustomed to receiving as essential, while a substantial proportion of the "desirable" and "somewhat desirable" information is only rarely disclosed? Development of an interval or ratio scale would permit a ranking of the items of information according to their desirability and a quantitative assessment of the relative utility of any given item of disclosure. Such a scale would also permit assessment of the extent to which individual firms disclosed the desired information.

The study was concerned not with *how* information should be disclosed but, rather, *what* information is required by stockholders and investors. The existing financial statement formats were assumed to be an acceptable manner of presentation for financial information: it is possible that the existing formats may, in fact, be inadequate. Research into the methodology of presentation of financial information would appear to offer a logical extension to this study.

Without careful determination of the users' needs, the efforts of those charged with the improvement of financial reporting practice could be seriously misdirected.

Periodic research efforts to monitor the perceptions of the financial community with regard to financial reporting, in all its aspects, would appear to hold promise for the future. At a minimum, such activity would make management, as well as the accounting profession, more responsive to the needs of the users by establishing valuable channels of communication.

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APPENDIX A

January 22, 1973

HOW OFTEN HAVE YOU QUESTIONED THE QUANTITY AND QUALITY OF FINANCIAL INFORMATION PROVIDED IN CORPORATE ANNUAL REPORTS?

Such quality and quantity is the topic of this research, which is being undertaken in partial fulfillment of the requirements for the degree of Master of Business Administration, The University of Manitoba.

Your opinions as a Chartered Financial Analyst, regarding the utility of selected items of information will provide a means of evaluating the adequacy of disclosure in annual reports. The results of this reasearch, hopefully, can lead to improvement in the quality and the quantity of financial reporting in Canada.

Your response will be utilized only in the preparation of statistical summaries; individual replies will not be referred to in any way, and will be destroyed following transcription. The number on the questionnaire is only to provide a means of identifying non-respondents.

The questionnaire is necessarily long, as the topic area is quite broad; however based on a pilot study, you may reasonably expect to complete it in less than thirty minutes.

Your early completion and return of the questionnaire will facilitate the timely completion of my project. Any additional comments which you might care to provide are encouraged and will be appreciated. If you would like a summary of the study, please check the box at the end of the questionnaire.

Thanking you in advance for your co-operation and assistance, I remain,

Yours sincerely,

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SURVEY OF THE ADEQUACY OF ANNUAL REPORT DISCLOSURE

INTRODUCTION

This questionnaire is comprised of four sections:

- A - contains statements regarding the scope and format of the annual report.
- B - seeks your opinions regarding the desirability and methods of disclosing income statement data.
- C - inquires about information usually found in the balance sheet.
- D - concerns itself with the funds statement.

The questions included pertain to the data presently disclosed in annual reports or that has seriously been suggested for future disclosure. The dollar amounts of the items under consideration are to be regarded as significant or material. You are asked to determine whether or not they are useful for your analytical purposes.

For this study, please confine your opinions to the information which is, or should be, presented in corporate annual reports. While it is recognized that other sources do provide valuable information, the scope of this study is limited to disclosure in annual reports only. Perhaps if disclosure in annual reports could be improved, less reliance would have to be placed on other informational sources.

SECTION A - GENERAL

In this section, you are asked to please check the agree, disagree or no opinion column, depending upon your opinion as to the usefulness of the item covered by the statement.

	agree	disagree	no opinion	
A-1. Financial information presented in the following sections of the annual report should be covered by the auditor's opinion.				1
a. Financial highlights				a
b. Historical summary				b
A-2. Extending the auditor's opinion to cover all the financial information presented in the annual report would be useful.				2
A-3. Where a range of possibilities exists, the accounting principles used by a company should be disclosed.				3
A-4. Disclosure of the following information concerning subsidiaries is useful for analytical purposes.				4
a. Names of subsidiaries				a
b. Line(s) of business				b
c. Operating revenues				c
d. Operating profits				d
e. Accounting basis of the major classes of assets				e
f. Ownership percentage of the parent company				f
g. Officers and directors				g
h. Method of allocating joint costs among the subsidiaries				h
A-5 A single set of accounting principles with a minimum number of acceptable alternative applications should be used.				5

	agree	disagree	no opinion	
A-6. Information concerning a company's budget (earnings forecast) for the coming year should be included in the financial statements.				6
If you disagree or had no opinion, please proceed to question A-8. If you agreed with this statement, please answer parts (a) through (g) that follow, and question A-7. Budgetary information should include estimates of the following items: a. gross sales--total				a
b. gross sales--by component group, which in this study, would be all subsidiaries or divisions which account for 15% or more of a company's revenue.				b
c. capital investment--total				c
d. capital investment--by component group				d
e. net income--total				e
f. net income--by component group				f
g. long-term financing to be undertaken during the coming year				g
A-7. Budgetary information should be covered by the auditor's opinion.				7
A-8. The single step form of income statement is more useful than the multiple step income statement.				8
A-9. When minority shareholder interests exist, their share of profits should be listed with other items of expense rather than listed as a separate cost after income taxes.				9
A-10. Income from unconsolidated subsidiaries should be shown with other items of income and expense rather than as a separate item after income taxes.				10
A-11. The rights and obligations that arise due to executory contracts (leases, purchase commitments, employment contracts, etc.) should be disclosed.				11
A-12 Reporting the quantity of unfilled orders provides useful information for analysis.				12
A-13 If no funds statement is presented, the analysis of the company is seriously hampered.				13

SECTION B - INCOME STATEMENT

In the remaining sections, you are asked to please check one of the four columns for each question.

Column 1: should be used for those items which are absolutely necessary for your purposes. In other words, for those items which are of such importance that your analysis is seriously hampered by their absence.

Column 2: is to be used for those items which are not absolutely necessary but provide additional information which is useful (but not

- 3 -

essential) for your analysis.

Column 3: should be used for those items which provide information which has only limited usefulness, but does facilitate the analysis of the firm.

Column 4: should be check for those items which you think provide little if any, insight into the firm and therefore are not useful to you.

1	2	3	4
essential	desirable	somewhat desirable	unnecessary

B-1. When applicable, should disclosure by component group, which in this study, would be all subsidiaries or divisions which account for 15% or more of a company's revenue, be made as to the: 1

a. dollar sales? a

b. sales as a percentage of the company total? b

c. contribution profits before allocation of common costs? c

d. net operating profit as a percentage of the company total? d

e. return on assets employed? e

B-2 When presenting the cost of goods sold section of the income statement should reference be made to: 2

a. the beginning finished goods inventory? a

b. materials, supplies, etc. purchased during the year? b

c. wages, salaries, etc.? c

d. depreciation? d

e. Any other costs entering into the total cost of goods sold? e

B-3. If both depreciation and depletion exist, should they be disclosed separately? 3

B-4. Should the depreciation and depletion methods be disclosed by classes of assets? 4

B-5. In the event that a firm uses a different accounting method for financial and tax purposes, should an estimate be made of the effect of the difference in the current year? 5

B-6. Current research and development expenditures can have an important impact on the future of a firm. should these costs be reported separately? 6

If you checked column 4, please continue on to question B-7. If you checked column 1,2 or 3 please answer the following questions (a) through (d).

Should an attempt be made to:

a. segregate the costs associated with new product development? a

	1 essential	2 desirable	3 somewhat desirable	4 unnecessary	
b. determine the costs associated with the development and improvement of existing products?					b
c. determine the costs associated with pure research?					c
d. capitalize the costs associated with the development of new and existing products?					d
B-7. Marketing costs likewise can have an important effect on the future of a firm. Should they be reported separately?					7
B-8. If federal income taxes were segregated from other income taxes when reported in the annual statement, would such a segregation provide useful information?					8
B-9. Should extraordinary items be segregated from the results of ordinary operations and shown separately in the income statement, with disclosure made of the nature and the amounts?					9
B-10. When presenting earnings per share, should disclosure be made as to the means of determining the outstanding shares?					10
B-11. If potentially dilutive stocks or securities are outstanding, should the financial statements present the methodology used in determining "fully diluted" earnings per share?					11
B-12. When past service costs associated with a pension plan have not been completely written off, should the statements disclose the period of the time over which these costs are to be charged?					12
B-13. Do you think that the following items relating to the components of income tax expense should be disclosed?					13
a. Taxes estimated to be payable.					a
b. Tax effects of timing differences.					b
c. Tax effects of operating losses.					c.
SECTION C - BALANCE SHEET					
C-1. Cash on hand, cash in the bank, and other near cash items (marketable securities, certificates of deposit, etc.) are often shown as a single total. Should they be disclosed separately?					1
C-2. Do you think that disclosure as to both the cost and the market value of marketable securities should be made?					2

	1 essential	2 desirable	3 somewhat desirable	4 unnecessary	
C-3. The allowance for uncollectible accounts is usually not shown in the financial statements. Should this amount be disclosed separately?					3
C-4. Inventories usually consist of supplies, raw materials, work in process, and finished goods. Should these items be disclosed separately?					4
C-5. Should the pricing basis for inventories (lower of cost or market, market, cost, etc.) be disclosed?					5
C-6. If inventories are priced using the lower of cost or market method, should total costs be disclosed?					6
C-7. Is information pertaining to the method of cost determination (Lifo, Fifo, average etc.) useful?					7
C-8. If average cost is used, should the value of the inventory as determined under Fifo be shown (or vice versa)?					8
C-9. When a claim for a refund of income tax exists, should the reasons for its occurrence be explained?					9
C-10. Should the major classes of depreciable property be reported separately?					10
If you check column 4, please continue on to question C-11. If you checked column 1, 2, or 3, please answer the following question. a. Should the depreciation related to these classes also be reported separately?					a
C-11. Should the methodology and criteria used to evaluate investment proposals be disclosed?					11
C-12. If the value of the fixed assets deviates materially from cost, or cost less depreciation, should the statements contain an estimate of the current value of the items?					12
C-13. Should the type of prepaid expenses and deferred charges be separately disclosed?					13
C-14. If intangible assets exist, should they be reported as a separate section of the balance sheet?					14
C-15. Should the amortization of intangible assets for the current year be reported?					15

		1 essential	2 desirable	3 somewhat desirable	4 unnecessary	
C-16.	Is information relating to the cost of short and long-term credit useful?					16
C-17.	If debt is secured, should the major elements of the security agreement be revealed?					17
C-18.	Should the principal provisions of the various debt agreements be revealed?					18
C-19.	If convertible debentures exist, should the conversion provisions be disclosed?					19
C-20.	When long-term leases are capitalized, is information relative to the future payments required by these leases useful?					20
C-21.	When applicable, should the major provisions of deferred compensation, employee benefit plans, and pension plans be disclosed?					21
C-22.	If minority shareholders exist, should their ownership percentage be identified by subsidiary?					22
C-23.	When changes occur in the number of shares of stock outstanding should the changes be explained?					23
C-24.	Should the number of issued shares of each type of stock be disclosed?					24
C-25.	Should the number of authorized shares of each type of stock be disclosed?					25
C-26.	Should the par or stated value of the various types of stock be shown?					26
C-27.	If preferred stock is outstanding should the call provisions (if any) be disclosed?					27
C-28.	If changes occur in the premium/discount on share capital account, should these changes be explained in the financial statements?					28
C-29.	Should the cash dividends per share be disclosed in the financial statements?					29
C-30.	When financial events occur which permit direct additions to or deductions from retained earnings, should these occurrences be adequately and clearly explained?					30
C-31.	If a pooling of interests takes place, should all prior year's information shown in the financial statements be restated to incorporate the pooled companies?					31

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Question	1 essential	2 desirable	3 somewhat desirable	4 unnecessary	
C-32. If a company holds both common and preferred stock in its treasury, should the purchase price and number of shares of each be disclosed?					32
C-33. When stock options are granted during the year to company officers and employees, should the relationship of the option price to market price be disclosed?					33
C-34. When stock option plans exist, should changes in the plan during the year be indicated?					34
C-35. Should the number of shares of stock granted under a stock plan and exercisable at the end of the fiscal year be disclosed?					35
C-36. When restrictions on retained earnings exist, should reference be made to:					36
a. the source of the restrictions?					a
b. the duration of the restrictions?					b
c. the amount of the restrictions?					c
SECTION D - FUNDS STATEMENT					
D-1. Does a funds statement provide useful information?					1
If you checked column 4 please continue on to question D-3. If you checked column 1, 2 or 3, please answer the following questions (a) through (c) and question D-2. Should "Funds" be defined as:					
a. working capital?					a
b. net quick assets?					b
c. cash?					c
D-2. If a funds statement is presented in the financial statements, should it be covered by the auditor's opinion?					2
D-3. Should a segregation be made between the disposition of funds for replacement of plant and equipment and the expansion of plant and equipment?					3

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE. WOULD YOU PLEASE RETURN IT TO ME IN THE ENCLOSED ENVELOPE.

Sincerely,

W.G. EAMER

Please check here if you desire a summary of the study ____

APPENDIX B

LIST OF CORPORATIONS

Abitibi Paper Company Ltd.

Alcan Aluminium Limited

The Algoma Steel Corporation, Limited

Anglo-Canadian Telephone Co.

B P Canada Ltd

Bell Canada

British Columbia Forest Products Ltd.

Canada Cement Lafarge Ltd.

Canada Packers Ltd.

Canadian General Electric Co.

Canadian Industries Limited

Canadian Utilities Ltd.

Consolidated Bathurst Limited

Continental Can Co. of Canada

Distillers Corporation-Seagrams Limited

Dominion Bridge Company, Limited

Dominion Foundries & Steel Ltd.

Domtar Ltd.

Du Pont of Canada Limited

Emco Ltd.

Falconbridge Nickel Mines Ltd.

Federal Grain Ltd.

Ford Motor Co. of Canada

Genstar Ltd.

The Goodyear Tire & Rubber Company of Canada Limited

Gulf Oil Canada Limited

Hiram Walker-Gooderham & Worts Limited

Hudson's Bay Oil & Gas Co.

The International Nickel Company of Canada, Limited

Interprovincial Pipe Line Co.

MacMillan Bloedel Ltd.

Maple Leaf Mills Ltd.

Massey-Ferguson Ltd.

Molson Industries Limited

Moore Corporation Limited

Pacific Petroleums Ltd.

The Price Company Limited

Rio Algom Mines Limited

Robert Morse Corporation Limited

Robin Hood Multifoods Limited

Rothmans of Pall Mall Canada Limited

Shell Canada Ltd.

Silverwood Industries Ltd.

Southam Press Ltd.

The Steel Company of Canada, Limited

Thomson Newspapers Ltd.

TransCanada Pipe Lines Limited

Union Gas Co. of Canada

Westcoast Transmission Co.

Westinghouse Canada Ltd.

APPENDIX C

Statistical Methodology

Questionnaire Analysis

Selection of a confidence interval for the sample proportion required an estimate to be made of the true proportion in the population constituting all CFA's. Since an estimate which was too low could yield results which would not provide the desired level of accuracy, it was decided to determine the maximum deviation possible in the study. In questionnaire section A, the respondent was asked to indicate whether he agreed or disagreed with the item presented. A reply indicating "no-opinion" was classified with those disagreeing, as in either event the respondent was not in agreement with the given statement. The maximum possible standard deviation would occur in instances where exactly one-half of the respondents agreed with a statement while the other half either disagreed or had no opinion. The standard deviation of the population can be calculated using the formula:

$$\sigma = \sqrt{pq} \quad [1] \qquad \text{(C-1)}$$

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[1] William A. Spurr and Charles P. Bonini, *Statistical Analysis for Business Decisions*, (Homewood, Illinois: Richard D. Irwin, Inc., 1967), p. 305.

where p represents the proportion of respondents agreeing with the statement, 50 per cent, and q the proportion disagreeing, 50 per cent, or (1-p). Substituting these proportions into equation (C-1), the maximum possible value of the population standard deviation is:

$$\begin{aligned} \sigma &= \sqrt{0.5 \times 0.5} \\ &= \sqrt{0.25} \\ &= 0.5 \end{aligned}$$

The standard deviation of the sample, or the standard error, which measures (inversely) the precision of the sample estimate, i.e., how closely the sample proportion is likely to approach the true population proportion, can be calculated using the formula:

$$\sigma_{p_s} = \sqrt{p_h q_h / n} \quad [2] \qquad \text{(C-2)}$$

where p_h represents the hypothetical proportion expressing agreement, q_h is $1-p_h$, and n represents the size of the sample. Thus, given the size of the sample [3] and the minimum acceptable proportion, the standard error was computed using formula (C-2):

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[2] *Ibid.*, p. 260.

[3] *Ibid.*, p. 308.

$$\sigma_{p_s} = \sqrt{(0.5 \times 0.5)/42}$$
$$= 0.07715$$

The concern of the study was with the alternate hypothesis that the true proportion was greater than 0.50; therefore a one-tailed test was appropriate. The multiples of the standard error (the z value) can be computed using the formula:

$$z = (p_s - p_h)/\sigma_{p_s} \quad (C\text{-}3)$$ [4]

Using a confidence coefficient of 95 per cent, the z value is 1.645[5], thus:

$$1.645 = (p_s - 0.50)/0.07715$$

and

$$p_s = 0.6269$$

Hence the decision rules were established:

Hypothesis	Rule	Action
$H_0(p \leq 0.50)$	$p_s \leq 0.6269$	Exclude from analysis as not being significant
$H_1(p > 0.50)$	$p_s > 0.6269$	Include in analysis

Utilizing these rules, the probability of a Type I error, i.e., the probability of including information which should

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[4] *Ibid.*

[5] *Ibid.*, Appendix D.

be excluded, is 0.05. There is a 5 per cent chance that the null hypothesis (H_0) would be rejected in error and that information which should have been excluded from analysis would be included.

The decision rules are predicated on the assumption that the minimum acceptable population proportion is 0.50, below which level insufficient support exists for the statement and its inclusion in the analysis could not be logically justified. Excluding all questions where the sample proportion in agreement was less than 0.6269 recognizes the fact that given a sample of size forty-two and a confidence coefficient of 95 per cent any lesser proportion could, statistically, have been drawn from a population having a proportion less than 50 per cent and would therefore, by definition, be excluded from the study.

For example, assume that of forty-two respondents to a particular question, 55 per cent signified agreement. Using one-tailed test with a 95 per cent critical probability, it may be calculated that a proportion of 0.550 could have been drawn from a population proportion as low as 0.423. Hence the null hypothesis would not be rejected and the item would not be included in the study.

The chance is only approximately 1 in 20 that a sample of size forty-two exhibiting a proportion greater than 0.6269 would be drawn from a population having a proportion of less than 0.50. Table C-1 shows how the

TABLE C-1

Sample Size and Minimum Sample Proportion

Using a 95 Per Cent Confidence Coefficient

Sample Size	Maximum Required Sample Proportion
25	0.6645
40	0.6300
42	0.6269
45	0.6226
50	0.6163
60	0.6062

decision rule is dependent upon sample size. Based upon the calculations of formulas (C-2) and (C-3), the required sample proportion decreases as the size of the sample is increased. This reliability measure does not include the effect of bias due to nonsampling errors in design, incomplete coverage or bias of respondents.[6] Nor may it be inferred, other than as above stated, that the opinions of the respondents necessary coincide with those of financial analysts at large.

Cross-Cultural Study

Cross-cultural comparisons were performed utilizing equivalent statistical criteria. The standard error of the difference between two independent sample proportions may be calculated using the formula:

$$\sigma_{p_{s_1} - p_{s_2}} = \sqrt{\sigma^2_{p_{s_1}} + \sigma^2_{p_{s_2}}}\,^{7} \qquad \text{(C-4)}$$

however, it is more convenient to work with the square of formula (C-4), the sampling variance of the difference:

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[6] *Ibid.*, p. 268.

[7] *Ibid.*, p. 308.

$$\sigma^2_{p_{s_1} - p_{s_2}} = \sigma^2_{p_{s_1}} + \sigma^2_{p_{s_2}} \quad [8] \tag{C-5}$$

As $\sigma^2_{p_s} = pq/n$ in each case, formula (C-5) may be rewritten as:

$$\sigma^2_{p_{s_1} - p_{s_2}} = \frac{\bar{p}\bar{q}}{n_1} + \frac{\bar{p}\bar{q}}{n_2} \tag{C-6}$$

where 1 and 2 refer respectively to each of the two samples.

The null hypothesis under test is that there is no difference in the true population proportions, $H_0 (p_1 = p_2)$. As the values of p_1 and p_2 are unknown, the best estimate of their value is the weighted mean of the sample proportions, using the sample sizes as weights. Entering these values in formula (C-6) and extracting the square root provides the standard error of the difference.

Modifying formula (C-3) provides:

$$z = \frac{p_{s_1} - p_{s_2}}{\sigma_{p_{s_1} - p_{s_2}}} \quad [9] \tag{C-7}$$

which yields a test value for z which may then be compared with the critical value for z, of 1.96 (using a two-tailed test and a 95 per cent confidence coefficient). The two-

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[8] *Ibid.*, p. 309.

[9] *Ibid.*, p. 310.

tailed test is appropriate here because this area of the study is concerned with differences in the absolute sense (positive or negative) rather than in only one direction, as previously.

Assume, for example, that the ratio of respondents favouring a given question was: Canadian, 30/40 and American 50/60. The weighted mean proportion is, therefore, p = 30/40 + 50/60 = 80/100 = 0.8. The sample variance may then be calculated using formula (C-6):

$$\sigma^2_{p_{s_1} - p_{s_2}} = \frac{\bar{p}\bar{q}}{n_1} + \frac{\bar{p}\bar{q}}{n_2}$$

$$= \frac{0.8 \times 0.2}{40} + \frac{0.8 \times 0.2}{60}$$

$$= 0.00667$$

Next, extracting the square root yields the standard error of the difference:

$$\sigma_{p_{s_1} - p_{s_2}} = \sqrt{0.00667}$$

$$= 0.08167$$

and entering these values in formula (C-7):

$$z = \frac{0.83\overline{3} - 0.75}{0.08167}$$

$$= 1.02$$

indicates that the observed difference deviates from the null hypothesis by 1.02 standard errors. A deviation of this size is expected to occur by chance alone in 31 per cent of all possible samples. In other words, the probability is approximately 31 per cent that this large a spread between the two sample proportions could occur by chance alone, were the null hypothesis, $H_0(p_1 = p_2)$, true. As this result is not significant using a 95 per cent confidence coefficient, it is reasonable to fail to reject the null hypothesis, and to attribute the difference between the two samples to mere chance.

Sample of Annual Reports

The required size of the sample of corporate annual reports was calculated (with the confidence coefficient remaining at 95 per cent and again assuming the maximum possible sample deviation or error of 0.5) using the following formula:

$$n = S_{\bar{X}}^2/(h^2/z^2) + (S_{\bar{X}}^2/N) \quad [10] \qquad \text{(C-8)}$$

$$= (0.5)^2/[(0.10)^2/(1.96)^2 + (0.5)^2/100]$$

$$= 49$$

Where n is the sample size, $S_{\bar{X}}$ is the standard deviation of the sample, h is the desired width of the confidence interval, z is the confidence interval coefficient, and N is the size of the population.

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[10]John Neter and William Wasserman, *Fundamental Statistics for Business and Economics*, (New York: Allyn and Bacon, Inc., 1966), p. 310.