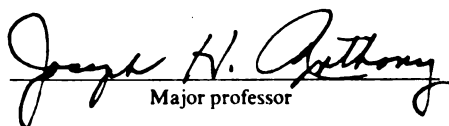THESIS

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THE THEORY OF POLITICAL COSTS
AND THE CABLE TELEVISION INDUSTRY

By

Kimberly A. Galligan

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

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ABSTRACT

THE THEORY OF POLITICAL COSTS
AND THE CABLE TELEVISION INDUSTRY

By

Kimberly A. Galligan

The purpose of this study is to examine the role of accounting information in the political process surrounding regulation of the cable television industry. The theory of political costs is tested by determining if any accounting choice, often referred to as earnings management and measured in this study by discretionary accruals, was carried out by managers of firms in the cable television industry to avoid or to mitigate Congressional scrutiny and potential reregulation.

The study uses an expectations modeling approach with the model predicting nondiscretionary accruals based on industry and general economic characteristics. Discretionary accruals are measured for the Congressional scrutiny time period and are the basis of the main tests in the paper. The study also makes within sample comparisons based on between-firm differences in manager incentives to engage in earnings management. The time period preceding the passage of the 1992 Act is investigated with a sample of twenty-three publicly-traded firms.

Data in the study are interpreted as generally consistent with the political costs hypothesis. Discretionary accruals are income-decreasing in the Congressional scrutiny time periods, although this result is sensitive to model specification. The magnitude of income-decreasing discretionary accruals is greater for firms for which the cable television operations are considered more important, and the magnitude also tends to be greater for firms that are expected to be more harmed by the proposed regulations. A multivariate test with discretionary accruals as the dependent variable aids in ruling out the alternate explanation that there is a correlated, omitted variable and provides further confidence in test results.

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CHAPTER 1 - INTRODUCTION

The purpose of this study is to examine the role of accounting information in the political process surrounding regulation of the cable television industry. The theory of political costs states that to the extent a firm is subject to potential wealth transfers in the political process, its management is hypothesized to adopt accounting procedures or make accounting choices that reduce the transfer (Watts and Zimmerman, 1986). The question of interest is whether any such accounting choice, often referred to as earnings management and measured in this study by discretionary accruals, was carried out by managers of firms in the cable television industry to avoid or to mitigate Congressional scrutiny and potential reregulation. The time period of expected scrutiny is identified, and comparisons of levels of accruals are made between the scrutiny period and prior periods. The political costs hypothesis is that discretionary accruals are more income-decreasing in the scrutiny time periods.

The remainder of this chapter is organized as follows: Section 1.1 identifies the general timing of Congressional activity related to the cable television industry; Section 1.2 discusses the motivation for the research; Section 1.3 is a summary of the research design. Section 1.4 contains a synopsis of the results, and Section 1.5 summarizes the organization of the dissertation.

1.1 Timing of Congressional Activity

The cable television industry was essentially deregulated in 1984 with respect to rates charged for basic service. The Cable Communications Policy Act of 1984 provided that systems facing effective competition in a municipality were no longer subject to basic service rate regulation by that municipality. Ninety-seven percent of systems met the definition of being subject to effective competition (Cable Television Consumer Protection and Competition Act of 1992, Sec. 2).

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The Federal Communications Commission (FCC) has jurisdiction over premium service rates but has never chosen to regulate those rates.

The industry subsequently came under scrutiny as consumer complaints of excessive rate increases were made. Poor service was also a consumer issue, and many other issues were brought to the attention of members of Congress by various constituencies. The first Congressional vote regarding reregulation of basic service rates occurred in 1990; the House passed H.R. 5267 (Congressional Record, September 10, 1990), but Senate consideration of a similar bill was blocked (Congressional Record, October 19, 1990). Bills were introduced in subsequent sessions of Congress, and on October 5, 1992, the Cable Television Consumer Protection and Competition Act of 1992 (1992 Act) passed by overriding a presidential veto. This event was the first large-scale reregulation of an entire industry since 1981 (Mills, 1992) and the only time in four years and forty-six votes that Congress was able to override a President Bush veto (Congressional Quarterly Almanac, 1992).

1.2 Motivation and Contribution

The knowledge to be gained from this investigation relates to three issues. The primary motivation is to provide further and more conclusive evidence with respect to the theory of political costs. Empirical evidence to date that is consistent with the theory is weak. The second factor arises because the telecommunications industry is receiving a great deal of attention from financial markets and government. Information on the behavior of managers of these firms with respect to accounting issues can be beneficial to involved parties. Finally, the research provides empirical information to complement existing academic regulatory research. Detail on these three issues is provided in Sections 1.2.1 through 1.2.3.

1.2.1 The Theory of Political Costs

The political costs hypothesis is one of the three primary contracting theories identified by Watts and Zimmerman (1986). The

other two hypotheses are related to compensation contracts and debt contracts. Political costs theory has been the least satisfactorily investigated of the three hypotheses primarily because previous research has largely relied on firm size as a proxy variable. The size hypothesis is based on the assumption that large firms are more politically sensitive than small firms, and therefore, face differential incentives in the choice of accounting procedures (Watts and Zimmerman, 1986). Empirical results using the size proxy have been mixed, and theoretical criticisms have been made.

Although firm size has explanatory power across studies of accounting method choice (Christie, 1990), some results are sensitive to industry, time period, and measurement issues. For example, Moyer (1990) investigates accounting choice in commercial banks, and results are not consistent with the political costs hypothesis. She suggests that size may be a political benefit for banks because regulators are more concerned with potential failures, and failures are probably less likely for larger banks. For the banking industry, then, political concerns of managers have not been shown to be related to firm size.

Zimmerman (1983) examines the relation between firm size and effective tax rates and states that observing the largest firms having the highest rates is consistent with the political costs hypothesis. The strongest relations consistent with firm size as a proxy for political costs are exhibited for two subsets of firms, oil and gas companies and manufacturing firms. Subsequent investigations of the firm size and tax relation have been made. Omer, Molloy, and Ziebart (1993) make general conclusions consistent with Zimmerman and supporting the use of firm size as a proxy, but Porcano (1986) and Kern and Morris (1992) do not. Kern and Morris (1992) suggest that differing conclusions are due to the fact that tax legislation can have a substantial impact on effective tax rate structure.

The use of the firm size proxy is also considered problematic from a theoretical perspective. Ball and Foster (1982) use the political

cost-firm size proxy relation as an example when discussing concerns with respect to construct validity, and Watts and Zimmerman (1986) describe firm size as a noisy proxy for political costs. Holthausen and Leftwich (1983) state that given sketchy theories of both the political process and the characteristics of firms that attract attention in the political arena, it is difficult to interpret results obtained with the size proxy. In a section discussing disenchantment with positive accounting research, Bernard (1989) states that it is difficult to make reliable links between firm size tests and theory because firm size is a proxy for any number of factors that are totally outside the theory. Although Bernard (1989) does not provide specific examples of these other factors, Collins, Rozeff, and Dhaliwal (1981) describe firm size as a "comprehensive variable" (p. 52) that proxies for leverage, public debt, and factors omitted from the return generating model. These theoretical links with firm size often are ignored in the positive accounting research setting.

Finally, Wong (1988) makes a useful suggestion in approaching political costs by observing that "previous studies that test the political cost hypothesis do not make explicit links to events in the political arena" (p. 37). This is consistent with Ball and Foster (1982) pointing out that it is inferences about the political domain that are sought, not about firm size per se.

Additional statements made by researchers support an investigation that captures the political environment. For example, Watts and Zimmerman (1990) state that "the most important way to improve positive research in accounting choice is to make tighter links between the theory and the empirical tests" (p. 131). Others point out that inquiry regarding political costs needs to focus on the political environment (e.g. Ball and Foster (1982); Holthausen and Leftwich (1983)). The importance of considering the environment is also implied by Holthausen and Leftwich (1983) who remark that "casual observation suggests that

the political visibility of industries changes through time, and size alone does not explain the changes" (p. 108).

Examination of the cable television industry provides a setting in which it appears fairly clear that the industry's visibility in the political arena was high compared to other time periods and other industries in the same time period. Congressional scrutiny of an entire industry due in part to accounting-related performance is unusual; thus, the cable reregulation setting provides an opportunity to investigate the political costs theory directly. In addition, the opportunity to examine an entire industry with strong, aligned incentives is rare. A strong link between theory and empirical tests exists because no proxy is used for political sensitivity.

1.2.2 Accounting Information and the Telecommunications Industry

The study should be of interest to parties involved in the debate over the future of the telecommunications industry. This is true because of existing and potential new rules that apply to cable television firms as well as to the entire set of telecommunications firms.

With respect to the cable television industry regulation, it is of interest to know the extent of flexibility firms have in reporting accounting numbers. The rules promulgated by the FCC allow for annual price adjustments based in part on actual increases in external costs. External costs are defined to include programming costs, taxes on cable television services, franchise fees, and costs related to meeting local franchise requirements (FCC Report and Order Section 3(g), May 5, 1993). The Report and Order also explains that a cost-of-service showing can be made by an operator to justify rates above capped levels (Section 3(h)).

If it is demonstrated in this study that managers of firms appear to influence financial reporting using discretionary accruals, regulators are likely to be concerned that similar discretion can be exercised over other within-firm accounting data. For example, cost allocations to external cost categories may be overstated in order to

increase prices to a greater extent. FCC personnel recognize the potential to affect accounting data; it is reported that they will closely and carefully monitor depreciation practices in individual firm cost-of-service proceedings (Stern and McAvoy, 1994).

The entire set of telecommunications firms is visible in the economy and to the federal government. A Congressional Research Service Issue Brief (Huth and Gould, 1994) describes the development of a national information infrastructure as a key part of the Clinton-Gore Administration's high technology/economic development policy. The Brief explains that a task force exists with responsibilities that include articulating regulatory policies and lists seven bills related to telecommunications. None of these bills proposes to eliminate government monitoring, so regulation of these important businesses will continue in some form.

Various constituencies and interested parties express concern regarding accounting-related issues in telecommunications regulation. Johnson (1994) identifies cross-subsidization as an important matter with which the FCC must contend and one for which accounting rules are the most important safeguard. Cross-subsidization describes a situation in which costs of competitive ventures can be shifted to regulated service rate-payers. In telecommunications, regulated local telephone companies are considered to have the potential to subsidize entry into competitive video services at the expense of telephone service customers. The focus of a joint letter to the FCC from the National Cable Television Association and three other groups (October 5, 1994) is concern that adequate cost allocation rules be adopted to prevent cross-subsidization.

The investigation of financial reporting practices by cable television industry firms will provide evidence regarding managers' apparent ability and willingness to use reported accounting data in ways intended to benefit their firms. If data are consistent with the political costs theory during Congressional scrutiny, it is suggested

that it is possible that such accounting practices will be carried out in other settings. Federal and state legislators and regulatory agency personnel benefit from being aware of factors that affect accounting numbers used in decision making. Thus, information from this study is relevant to those interested in the continuing evolution of the information and communications industries.

1.2.3 <u>Relation to Regulatory Research</u>

Another motivation for this study is the price-cap form of regulation. The price-cap form of regulation used by the FCC to regulate the industry is fairly new, and therefore, has been examined to a lesser degree than rate-of-return regulation. As part of a symposium of papers addressing price-cap regulation, Acton and Vogelsand (1989) state that theoretical work on price-caps has made substantial progress, but more empirical tests are needed, and institutional settings deserve attention. In addition, knowledge gained from this study can be compared to previous research regarding incentives created by rate-of-return regulation and manager behavior with respect to accounting numbers. For instance, Jarrell (1979) finds that state regulation creates incentives for electric utility firm managers to inflate reported asset values, and therefore, obtain higher prices compared to utility managers that do not face such incentives. This study complements both the suggestion of Acton and Vogelsand (1989) and existing empirical research on regulated firms by considering managerial incentives at a different point in time, before regulations are instituted rather than after.

1.3 Research Design

The study uses an expectations modeling approach to measure the earnings management variable, discretionary accruals. The expectations regression model prediction for nondiscretionary accruals is based on industry-related characteristics as well as general firm characteristics identified by Jones (1991). Discretionary accruals are measured for the

Congressional scrutiny time periods and are the basis of the main tests in the study.

The study also makes within sample comparisons. This takes advantage of between-firm differences in cable television operations and provides evidence on whether predicted discretionary accruals are consistent with political costs theory. This approach is intended to rule out omitted variable explanations as well as to provide more powerful tests than tests on the full sample.

1.4 Synopsis of Results

Data in the study are interpreted as generally consistent with the political costs hypothesis. Discretionary accruals are income-decreasing in the Congressional scrutiny time periods, although this result is sensitive to model specifications. The magnitude of income-decreasing discretionary accruals is greater for the subset of firms for which the cable television operations are considered more important. This result is robust across alternate model and test specifications. The magnitude also tends to be greater for the subset of firms that are expect to be harmed more by proposed regulations. The strength of this result is sensitive to model and test specifications. The results of the additional tests, which are more powerful tests than those that include the full sample, allow for more confidence that results are not due to a correlated, omitted variable.

1.5 Dissertation Organization

This chapter has presented the research question and the motivation for the research. The remainder of the dissertation is organized into four chapters. Chapter 2 presents a review of political costs theory as well as related empirical research. Chapter 3 states the hypotheses and describes the research design. The results are discussed in Chapter 4, and the summary and conclusions are presented in Chapter 5.

CHAPTER 2 - REVIEW OF THEORY AND RELATED RESEARCH

Watts and Zimmerman (1978) helped generate the positive accounting literature that offers explanations of accounting practices based on factors that influence management. These factors are often broadly referred to as the set of firm contracts, both explicit and implicit. Watts and Zimmerman (1978) identify political costs as a potential factor or implicit contract that influences lobbying on accounting standards. Although that paper is an empirical examination of a specific issue, the authors and many other accounting researchers have continued to examine and develop positive accounting theory and the theory of political costs.

Section 2.1 of this chapter reviews the general political costs theory and the role of accounting with respect to the theory and the prediction of earnings management. The section also describes why the cable television industry reregulation environment is a good setting in which to examine the theory. Related empirical research is discussed in Section 2.2, and the cable television industry setting and sample are distinguished from these studies on important aspects. A chapter summary is provided in Section 2.3.

2.1 Political Costs Theory

Economic theories of regulation are related to political costs theory. This economic background as well as the development of the theory of political costs are discussed in Section 2.1.1. Section 2.1.2 presents the theoretical role of accounting and states related assumptions that are made in this study. Section 2.1.3 provides documentation of the role of accounting in cable television industry regulation.

2.1.1 Theories of Regulation and the Political Process

The foundation of accounting-related investigations of the political process is the positive economic theory of regulation, which

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recognizes that the political sector has the power to transfer wealth between various parties (Stigler, 1971; Peltzman, 1976). Stigler's pioneering work (1971, p.3) makes this point very directly by describing the power of the state as "a potential resource or threat to every industry in the society." Perquisites are distributed by elected officials who are "the pinnacle of the political system" with "no substitute for the ability to hold public office" (Stigler, 1971, p. 13). The purpose of the investigation of the cable television industry reregulation is to assess managerial response to the activities of these elected officials.

An underlying assumption in this study is that managers of cable television firms consider potential regulation a threat, and therefore, desire to avoid regulation of their firms. It is important to be explicit in this assumption because Stigler (1971) states that regulation may be actively sought by an industry or may be thrust upon it. The validity of the assumption is supported for two reasons. First, the industry sought and achieved deregulation in 1984. It is unlikely that cable television industry proponents would have sought deregulation and within four to five years sought to reverse that status. Managers and other industry proponents also voiced strong opposition to subsequent reregulation efforts in Congressional testimony, in firm-provided publications, and through their lobbying organizations. The second reason is that the regulations clearly were intended to reduce firm revenues. The 1984 deregulation had been with respect to basic service rates, and the focus of potential new regulations was on those same rates. Regulations so directly related to harming firm performance are unlikely to be regulations that industry proponents seek. Section 2.1.2 discusses the demand for earnings management; that demand is consistent with the assumption here that regulations are harmful and that industry managers desire to avoid the regulations.

Explicit assumptions related to theories of the political process are that there are positive information costs and positive organization costs (Peltzman, 1976). In comparing and contrasting political and market settings, Watts and Zimmerman (1986) state that accounting research to date has assumed that these transaction costs in the political process are substantially higher than in the market process. A result of this is that monitoring of elected officials to act in the best interests of voters will occur only in settings in which potential benefits to voters exceed their transaction costs.

The reregulation setting provides a good test of political costs theory because the potential benefits that appear to have been the most important to consumers, in the form of reduced prices, were direct and could be measured easily. Consumers presumably factor in all benefits and costs in forming positions. There are expected indirect costs to new regulations including less programming innovation and increased regulatory costs that are borne by consumers through taxes paid. However, achieving reduced prices appears to have been of primary concern. This assertion is based on lawmaker claims of being "deluged with sacks of mail from constituents up in arms over rising cable prices" (The Wall Street Journal, March 19, 1990). In addition, numerous consumer advocacy groups testified in favor of basic service rate regulations; these groups include the Consumer Federation of America, the U.S. Conference of Mayors, and the National League of Cities (U.S. Senate, April 12, 1989).

In addition to the perception of benefits that were quantifiable and direct, consumer transaction costs were relatively low. There were low costs to be informed because subscribers received information regarding rates on a monthly basis when they were billed by their local franchise operators. Penetration rates, the number of households subscribing to service divided by the total households for which service is available, reached sixty percent nationwide by 1990 (Cable TV Financial Databook, June 1991), so the effect of industry rate changes

is widespread. Consumers were able to focus attention on the industry and maintain that attention; therefore, firm managers are assumed to have perceived that there was a high likelihood that the cable television industry would be reregulated. This provides motivation for earnings management to avoid or reduce the effects of reregulation.

2.1.2 The Theoretical Role of Accounting

The theoretical role of accounting in the cable television industry is considered from two perspectives. First, accounting information is assumed to be a factor in the industry's political visibility. The second perspective is that, given the political visibility, managers are assumed to engage in earnings management. The explicit assumptions made in this study are as follows:

1. Cable television industry accounting information affects the political visibility of industry firms.

2. The contract set and reporting set are fixed.

3. There is a demand for earnings management.

4. Information asymmetry exists with respect to reported earnings.

5. Benefits of earnings management outweigh associated costs.

Assumptions (2) through (4) address directly Schipper's (1989) conditions giving rise to earnings management. The basis for making the assumptions is provided in the remainder of this subsection.

The assumption that managers have an incentive to manage earnings to avoid regulation derives from Holthausen and Leftwich (1983) who state that a firm's political visibility is affected by its reported accounting numbers; i.e., the numbers indirectly affect the extent to which the firm is either criticized or supported by such parties as consumers and politicians. For example, large reported earnings can be used as "evidence" of a monopoly. The legislative history of the 1992 Cable Act documented below shows that firms were criticized based on accounting numbers. A strength of this study is that potential political costs appear to be high in a well-defined time period.

The assumption of fixed contracting and reporting sets permits the focus on earnings management as a response to environmental conditions (Schipper, 1989). General types of contracts that are assumed to be fixed in this study are manager compensation contracts and firm debt contracts. Potential political costs are, therefore, considered to be an exogenous factor creating the incentive for earnings management by cable television industry managers.

Schipper (1989) distinguishes between internal and external demands. Internal demands, or incentives, are oriented toward manager self-interest. The author provides the example of manager bonus contracts. Internal incentives are present in the cable television industry because firm managers are assumed to prefer a nonregulated environment to a regulated environment. A price-cap environment provides fewer opportunities to maximize firm value because revenue choices are restricted. To the extent manager performance is related to firm performance, these potential restrictions are assumed to be perceived by managers as harmful. The characterization in Section 2.1.1 of potential regulation as a threat is consistent with this internal demand assumption.

External demands for earnings management require that the firm be considered to have distinct groups of stakeholders, one of which benefits from the effects of earnings management at the expense of the other (Schipper, 1989). This demand condition appears to be relevant for a given point in time with the value of the firm fixed. With this perspective the assumption in this study is that external demand is created by shareholders who desire to gain at the expense of subscribers or consumers in general. Shareholders are also interested in maximizing firm value. In this case the demand by shareholders is similar to the internal demand by managers; greater opportunities and choices in the future are assumed to be consistent with greater likelihood for increasing firm value.

Schipper (1989) describes information asymmetry as key for the existence of earnings management. The assumption in this study is that information asymmetry exists between managers and financial statement users regarding discretionary accruals. The asymmetry arises because it is difficult for financial statement users to adjust for income effects of discretionary accruals because information required to make such adjustments may not be available (Schipper, 1989).

Consistent with information asymmetry is the assertion that parties to the political process are unlikely to make exactly offsetting adjustments to numbers that are presented to them (Holthausen and Leftwich, 1983). The legislative history of the 1992 Cable Act supports this assertion. Both proponents and opponents of rate regulation use a General Accounting Office (GAO) study (General Accounting Office, 1990) but cite different data from the study in support of their positions. The differing interpretations of the study show that any earnings management of accounting numbers is not likely to be adjusted in a complete and systematic way because these interested parties do not examine industry-related information in the same way.

The final assumption necessary to predict industry managers engage in earnings management is that the benefits of doing so outweigh the costs. The benefits are considered to be high for cable television industry managers because firm performance was expected to be harmed if rates were restricted and because there would be ongoing costs to complying with new regulations. The strength of industry proponent arguments against regulation that are documented in Section 2.1.3 are consistent with this assumption.

Despite the high benefits, a possible reason for results not consistent with predicted earnings management is that the benefits of earnings management are difficult to quantify. Schipper (1989) explains that managers are assumed to have an "accounting target" (p. 99) implicitly or explicitly provided in a contract. Earnings are managed in response to contract terms. The lack of specific accounting targets

and measurable benefits in many political cost theory tests makes these tests less powerful than contract settings with explicit, quantifiable parameters. A second possible reason for results not consistent with political costs theory is that firm managers are reluctant to bear perceived costs of reporting reduced net income (Scholes, Wilson, and Wolfson, 1992). Managers have other opportunities to influence legislative actions and may choose an approach that does not affect reported accounting numbers.

2.1.3 <u>Documentation of the Use of Accounting Information</u>

This section documents that accounting information was actually used in the cable television industry reregulation process. This documentation is consistent with the assertion that accounting numbers affect political visibility (Holthausen and Leftwich, 1983). In addition, it is intended to provide evidence consistent with the assumption that managers have incentives to affect reported income.

The process of official Congressional examination occurs first in hearings before various House and Senate subcommittees. These hearings include testimony from interested parties and question and answer exchanges between witnesses and members of Congress. Supplementary materials include submitted statements, articles from publications, correspondence, government and private studies, and witnesses' written replies to subcommittee members' questions. The committee then prepares a report on the legislation for the full House or Senate. The process continues with full House or Senate debate followed by voting. A written record of these proceedings is publicly-available at U.S. Government Depository Libraries and has been reviewed.

There is ample evidence throughout stages of scrutiny of the cable television industry that parties to the political process use accounting and related financial information. In some instances there are actual data and calculations cited, and in other instances terminology is used that implies the importance of financial accounting information. The following items received attention in the process and are present in the

documented legislative history: the price of cable services, characterization of the industry as a monopoly with monopoly power earning monopoly profits, costs, and investments.

The price of cable service is clearly related to revenue, and extensive information about prices, price increases, and comparisons to inflation indices exists. Members of Congress often cite prices from their own districts (U.S. House, March 1, 1990). A General Accounting Office study (1990) is cited by both regulation proponents who point to increased basic service prices and opponents of regulation who point to decreased premium service rates (U.S. Senate, July 10, 1990). Rate increases are described as unjustified economically (U.S. House, September 6, 1990).

Proponents of legislation characterize the industry as an unregulated monopoly extracting monopoly profits (U.S. House, March 1, 1990). Statements include that operators are able to generate cash flows that result in supernormal profits (U.S. Senate, June 28, 1991), have made billions of dollars at the expense of consumers (U.S. House, March 1, 1990), earn excess profits and have earnings that are excessive in relation to costs (U.S House, April 4, 1990). Opponents of legislation refer to minuscule bottom line earnings and red ink on financial statements (U.S. Senate, June 14, 1989).

References to cost are made with respect to programming, franchise fees, operating costs, investments in plant and equipment, and new technology (Congressional Record, January 27, 1992). The bill itself refers to the terms *capital*, *operating*, *joint*, *common*, and *direct costs* (Public Law 102-385, Sec. 3). Other financial information cited includes return on capital (U.S. Senate, June 14, 1989), and a report is presented that includes yearly data on income, cash flow, assets, and return on assets (Congressional Record, January 31, 1992). These references establish the fact that accounting and related financial information is relevant to the scrutiny process surrounding the cable television industry.

2.2 Related Empirical Research

Some research on the political costs hypothesis avoids the firm size proxy and instead considers the environment in which sample firms operate. Wong (1988) examines financial statement disclosure of tax credits. Jones (1991) examines firms applying to the International Trade Commission (ITC) for import relief. Although Jones (1991) predicts negative discretionary accruals, no specific reference to the political costs hypothesis is made. Cahan (1992) is interested in firms subject to antitrust investigations and predicts negative discretionary accruals based on political costs theory. These studies are discussed in greater detail in the remainder of this section, and comments are included that support the investigation of cable television industry setting.

One of the features of this study that distinguishes it from Wong (1988) is that discretionary accruals cause an income statement effect; there is no income statement effect in Wong's (1988) study. That study is discussed in Section 2.2.1. Issues in the other two studies are addressed as well. Section 2.2.2 focuses on the issue of potential correlated firm performance in Jones (1991). Section 2.2.3 discusses the questionable strength of earnings management incentives in prediction periods in Cahan (1992), and potential firm size confounds in Cahan (1992) are discussed in Section 2.2.4.

2.2.1 <u>Income Statement Effect</u>

Wong (1988) examines intraperiod financial statement disclosure by New Zealand firms and provides documentation that these export tax credits were a politically-sensitive subject. Accounting rules provide that export tax credits either increase sales revenue or decrease income tax expense. Based on the political costs hypothesis, firms with low reported tax rates are predicted to be more likely to use the method by which sales revenue is increased. Such treatment avoids reducing a firm's reported tax rate, and presumably, mitigates politically-based criticism of a firm. The results are consistent with the hypothesis.

Wong (1988) demonstrates that consideration of the environment provides a powerful test. The study supports the cable television industry investigation because explicit scrutiny of the industry is present for the time period being investigated. The use of discretionary accruals is different from the measure of manager behavior in Wong (1988), an intraperiod disclosure issue with no effect on earnings. Using the discretionary accruals measure provides evidence on whether firm managers are willing to reduce net income to mitigate the effects of political attention.

2.2.2 Potential Correlated Firm Performance

In Jones's (1991) study managers are hypothesized to increase negative accruals to make it more likely that import relief will be granted. The results indicate significantly negative accruals in the year of application, which is also usually the year of the ITC decision. The relief-seeking firms' performances are generally poor; earnings changes, cash flow changes, and revenue changes in the relief-seeking year are statistically negative. In addition, no reversal of negative accruals is documented for the year following the import-relief decision. Thus, firm performance and the predicted direction of discretionary accruals are correlated. If expectations models and tests used do not fully control for this correlation, biased measures may result (Schipper, 1989). Dechow, Sloan, and Sweeney (1995) provide evidence that this bias is exhibited when sample firms are selected on the basis of measures of financial performance; all five earnings management models tested result in excessive type I errors when applied to a specially-selected sample.

This problem is reinforced in a study by DeAngelo, DeAngelo, and Skinner (1994) that examines accounting choices in troubled firms. The authors recognize that many studies are likely to contain a subset of financially troubled firms and cite Jones (1991) as an example. They find that firms in financial trouble have large and persistent negative accruals compared to other firm years. Such accruals are described as

generally characteristic of firms in financial trouble. A major implication of their results is that it is especially difficult to separate discretionary and nondiscretionary accruals in earnings management studies whose sample includes poorly-performing firms; biased measures are likely to exist.

Interestingly, industries represented in Cahan's (1992) sample overlap those of Jones's (1991) study. For example, four unidentified automobile firms applied for ITC relief with the investigation completed in 1980. The antitrust firms include three automobile firms for the period 1976 to 1981. Each study predicts relatively greater negative accruals but for different reasons. This overlap is contrary to expectations regarding the performance of firms subject to antitrust investigations. Cahan (1992) does not report descriptive information to assess firm performance, but the overlap of firms suggests that discretionary accruals in the study may be lower due to poor performance. This is even more likely if there is any performance-related positive trend in accruals in the time periods that trigger the Justice Department investigations, the expectations model periods.

Examination of the cable television industry should avoid these issue and provide a good test of the political costs hypothesis because firm performance does not appear to have been weak during and preceding legislative scrutiny. Firm performance is assessed using the following financial information: revenue, cash flow from operations, and net income. Test results presented in Chapter 4 suggest that problems associated with conclusions based on previous studies that include sample firms with poor performance are mitigated. The discussion of these results is in Sections 4.4 and 4.5.

2.2.3 Length of Time Periods of Predicted Behavior

Cahan (1992) investigates the motivations and behaviors of managers of firms that are being investigated for violations of antitrust laws. To reduce the possibility of an unfavorable ruling and associated costs, managers are assumed to have incentives to use

accounting procedures during investigation time periods that reduce net income. Discretionary accruals of 48 investigated firms over a fifteen year period, 1969 to 1983, are tested.

A regression model of predicted accruals consistent with Jones (1991) is used; an indicator variable for firm-year investigation or non-investigation periods is added to a second model. The results indicate that discretionary accruals are more income-reducing in the investigation periods. However, the investigation periods average nearly five years; the range of the period is one to thirteen years. Many other factors could influence management decision making over those periods, and firm characteristics are also likely to have changed. It is unlikely that the antitrust influence was constant for a given firm for each year that the investigation remained open. Political costs are likely to have differed across firms and across investigation years.

In contrast to the anti-trust investigations, in the cable television industry setting it is fairly clear that potential political costs are high in the periods of predicted earnings management. Firm data are pooled in the analysis because of the similarity of the form of political pressure on each firm. The fact that the incentives were salient provides the opportunity to make strong inferences regarding the political process. However, there are also firm characteristics that suggest relatively stronger or weaker incentives to manage earnings. These differences among firms are examined in two hypotheses that consider the degree of firm diversification and the level of basic service prices.

2.2.4 Potential Confound of Firm Size

The Cahan (1992) study contains an analysis of alternative explanations for the results. A control group is identified to test for potential correlated, omitted variables. A size and industry match is not possible because the original sample firms are larger than potential matches, and the antitrust investigations often include other industry members (e.g. eight oil refining companies were under investigation from

1973 to 1981). The control group does not show the sample group pattern of income-decreasing accruals with the interpretation that no omitted variable problem is identified. The author states that the fact that the larger, investigated firms have accruals that are more negative is consistent with the use of firm size as a proxy for political costs. However, the relation to size also suggests that the study has the theoretical problem of interpreting results based on firm size.

In this study the relation between accruals and firm size is assessed, and no apparent confounding interpretation associated with firm size is present in this study. This conclusion is based on results reported in Chapter 4 and is discussed in Sections 4.4 and 4.5.

2.3 Chapter Summary

This chapter has established the cable television industry investigation as a strong theoretical test of the theory of political costs. The role of accounting has also been examined. In addition, the study has been distinguished from previous empirical studies based on several factors. Potential bias in the discretionary accruals measure is minimized because the measure and firm performance do not appear to be correlated. Further, the cable television industry firms display cross-sectional variation in firm size, and there is no relation between firm size and hypothesized effects based on the firm size proxy for political exposure.

The study is also supported by Cahan's (1992) suggestion that areas for further research include other political actions. Congressional legislative actions are specifically cited. Cahan (1992) also states that research aimed at developing proxies for a firm's exposure to future political actions, while difficult, is warranted. This is consistent with Peltzman's (1976) connection between regulation and productivity and growth. The cable television industry price regulation rules changed in 1984, and the industry found itself subject to scrutiny within five years. Information on exposure to political

actions can be gained in this study with the possibility of increasing the understanding of other political process time periods as well as firm characteristics associated with political actions.

CHAPTER 3 - HYPOTHESES AND RESEARCH DESIGN

This chapter presents the hypotheses in Section 3.1. The sample and financial accounting characteristics of cable television firms are described in Section 3.2. The hypotheses refer to the following variables that are required to be measured: discretionary accruals, importance of the cable television operations to the firm, which is based on firm diversification, and importance of the proposed regulations to the firm, which is based on basic service rates charged. The methodology of measuring earnings management using discretionary accruals first requires that total accruals be defined, and this is done in Section 3.3. The discretionary accruals measure is presented in Section 3.4 as is the related expectations model. The measures for the importance variables are presented in Sections 3.5 and 3.6. Section 3.7 presents firm performance and firm size measures and discusses tests to assess alternate explanations based on these factors. Test specifications are identified in Section 3.8, and additional tests are described in Section 3.9.

3.1 Hypotheses

Section 3.1.1 presents the hypotheses based on the development of the theory of political costs. The study examines managerial incentives within the cable television industry based on time periods of Congressional scrutiny. These are the time periods of expected earnings management and are defined in Section 3.1.2.

3.1.1 Statement of Hypotheses

It has been shown that the cable television industry provides a theoretically strong setting in which to examine political costs. Further, documentation has been made of the fact that accounting information was used during the legislative debates concerning reregulation. Therefore, managers are assumed to have incentives to

manage earnings to avoid or reduce political costs. Thus, the following
hypothesis is made:

> H_1.   Discretionary accruals for cable television industry firms
> are more negative in Congressional scrutiny time periods
> than in non-scrutiny time periods.

Some of the sample firms are diversified into lines of business
other than cable television operations. Because of this it is assumed
that there are between-firm differences in incentives to manage
earnings. Thus, the following hypothesis is made:

> H_2.   The magnitude of negative discretionary accruals in the
> Congressional scrutiny time periods is positively related to
> the importance of cable television operations to the firm.

It is also assumed that the effect of potential basic rate
regulation was not constant across the cable television operations of
the firms. Similar to Hypothesis 2, these differences are assumed to
cause between-firm differences in incentives to manage earnings. Thus,
the following hypothesis is made:

> H_3.   The magnitude of negative discretionary accruals in the
> Congressional scrutiny time periods is positively related to
> the importance of potential regulation to the firm.

The two importance measures are different in that the first is
based on firm diversification and the second is based on basic service
rates charged by the cable television operations. There is no a priori
association between the measures. For example, a firm charging higher
basic service prices than other firms will be classified as a firm for
which proposed regulations are very important because higher prices were
expected to be required to be reduced. If the high-price firm is highly
diversified into other lines of business, the importance of the cable
television operations is measured as relatively low. However, if the
same high-price firm is strictly a cable television operator, the
importance of the cable television operations is measured as relatively
high. Thus, the classifications are independent.

Hypothesis 2 and Hypothesis 3 are intended to complement
Hypothesis 1. If data are not consistent with the first hypothesis, a
potential explanation for the lack of a statistical relation is that the

more diversified firms do not exhibit the predicted negative accruals, or the magnitude of discretionary accruals is not as great as is the case for less diversified firms. Similarly, it is possible that sample firms that are expected to be harmed relatively less than other sample firms do not exhibit the same level of discretionary accruals. These two additional tests, then, are potentially more powerful than the first because between-firm differences in incentives are reflected.

If data are consistent with Hypothesis 1, the additional hypotheses provide evidence regarding potential correlated, omitted variables. Statistically significant results for the first test are possible due to such a variable; for example, one could question whether some economic factor affects all cable television firms. The additional hypotheses distinguish the sample firms from each other and provide statistical information to aid in ruling out a potential omitted variable explanation.

3.1.2 Time Period Identification

The time period of predicted earnings management is identified based on review of the legislative history, the publisher's letter in the annual Cable TV Financial Databook (Databook), annual report commentary on potential reregulation, and The Wall Street Journal coverage of the legislative scrutiny process. Congressional hearings began as early as March, 1988, but the majority of hearings took place during 1989. The publisher letter dated May, 1989, mentions political issues, and the May, 1990, letter contains information about proposed rate regulation. Annual reports for firms with calendar year-ends appear to discuss the issues in the greatest detail beginning with 1989 reports.

The Wall Street Journal reports on all three 1988 hearings, and after the final hearing of the year concludes that the hearings probably will not lead to new laws (May 12, 1988). In 1989 the paper reports that there is increasing pressure on the industry to take action to avoid regulation (May 23, 1989). An August, 1989, article discusses a

General Accounting Office study (GAO, 1989) and describes it as likely to spur action to reregulate the industry (August 3, 1989). Late-year coverage concludes that there is support indicating resolve to pass some sort of legislation (November 16, 1989); however, the chance of legislation passing in 1990 is assessed at fifty to sixty percent (December 22, 1989).

The identification of the expected timing of earnings management is not precise because the scrutiny and actual passage of the 1992 Act span a number of years. Because of this, two sets of year-ends are predicted to be those with the initial and strongest incentive for managers to manage earnings in an income-decreasing manner. These years are referred to as Year 1 and Year 2. December 31, 1989, year-ends are designated as Year 1, and December 31, 1990, year ends are designated as Year 2. Fiscal year-ends must be assigned to test years as well. This is done based on the nearness of the fiscal year-end to December 31. There are no June or July fiscal year-ends; thus, Year 1 includes the range of year-ends from August 31, 1989, to May 31, 1990, and Year 2 includes the range of years ends from August 31, 1990, to May 31, 1991.

An estimation period is required for modeling expected accruals. This period contains the five years preceding Year 1; these years are referred to as Years 0, -1, -2 and -3, and -4. The estimation period selected is relatively short in order to avoid the possibility of structural change during the period. The possibility of structural change in the cable television setting exists because the 1984 Cable Act changed industry profit functions by removing a pricing constraint. The potential for structural change also arises because the industry has evolved from start-up periods characterized by initial system construction to the point that cable television service is now available to more than ninety percent of U.S. homes (Databook, June 1993).

A meaningful reversal period is difficult to identify; the setting does not have a precise event date or a clear end to the incentive to manage earnings. Nonetheless, changes in discretionary accruals will be

examined for the period following the prediction periods, designated
Year 3, in order to provide some comparative data on industry financial
and accounting characteristics.

3.2 Sample and Cable Television Industry Accounting

Section 3.2.1 discusses the identification of sample firms.
Financial accounting characteristics of cable television firms are
discussed in Section 3.2.2, and Section 3.2.3 presents descriptive
information regarding the sample.

3.2.1 Sample Identification

Paul Kagan Associates, Inc., of Carmel, California (Kagan), is a
recognized industry leader in providing media and financial investment
analysis. The firm has published the annual Cable TV Financial Databook
since 1981. This publication has been used to identify sample firms.
It also aids in assessing the overall industry environment and in
identifying economic circumstances that influence industry performance
in a given year. For the time periods identified as the prediction
periods, the sample contains twenty-four firms for Year 1 and twenty-
three firms for Year 2.

The estimation period includes each of these firms for all years
in which the firm existed. Two additional firms are included in the
estimation period that are not in the prediction period. The selection
criteria for additional firms were that a firm exist in at least four of
the five estimation years and that the firms have U.S. operations. The
U.S. operations qualification is necessitated by the fact that a Canada-
based firm disposed of all U.S. operations during 1990. The post-
disposition years are not appropriate for inclusion in the study because
the firm no longer would be subject to U.S.-imposed regulations. The
Appendix provides a list of the firms, firm fiscal year-end, years for
which data are included in the study, and total assets for Year 1.

Based on 1990 data the sample firms provide basic cable service to
more than half of the 50.52 million U.S. subscribers and earn nearly

half of the $18.214 billion total cable television revenues. Kagan ranks system operators by number of basic subscribers; eight of the top ten and thirteen of the top eighteen firms are publicly-traded and included in the sample. Eleven of the sample firms are not diversified into any other lines of business. Four firms are publicly-traded partnerships.

Three included firms are members of a controlled group with another member of the group also in the sample. For example, the Appendix list of firms shows Jones Investors' L.P., Jones Intercable, Inc., and Jones Spacelink. These three firms issue separate annual reports but have common control among the firms. In these cases the other member of the controlled group also has cable television operations. Statistical analysis includes firms assuming reported accounting numbers are independent.

Data have been gathered directly from financial statements and SEC Form 10-K to conduct the analysis. All items are available except that gross intangible assets and accumulated amortization are missing for three firms for some of the estimation period years. Net intangible asset data are available, so the net amounts are grossed-up for each firm-year requiring estimation. The grossed-up amounts are calculated based on the sample average yearly relation between gross intangible assets and accumulated amortization for each specific firm-year requiring estimation. Data required to test Hypothesis 3 are collected from the Databook.

3.2.2 Financial Accounting Characteristics

A new cable television system requires a large upfront investment because much of the plant must be constructed before any revenues can be generated. It is a capital-intensive business with capital expenditures that consist of headend equipment, which is the local system electronic control center, distribution plant, subscriber equipment, and more usual items such as office and building facilities. After initial system construction a cable television operator continues to make fixed asset

investments to upgrade plant and equipment. These upgrades, such as increasing channel capacity and incorporating technological advances like fiber optics, cause the average cable system to be rebuilt every six or seven years (National Cable Television Association (NCTA) Primer, 1990).

Accounting rules specifically applicable to the industry are provided in Statement of Financial Accounting Standards No. 51 (SFAS 51), "Financial Reporting by Cable Television Companies," which provides rules for accounting for expenditures during original plant construction. The Statement defines the prematurity period, the time period during initial system construction when the system is partially under construction and partially in service. The Statement guidelines are intended to define the manner in which certain costs incurred during the prematurity period are capitalized; rules for accounting for construction period interest and depreciation of assets during the prematurity period are also established. Most systems in the United States are finished with the stage of construction covered by SFAS 51, so there are no accounting standards currently operating that affect cable television firms in a unique manner.

The bulk of a system's revenues have traditionally come from monthly charges for basic service. Revenues are also earned from pay television services and local advertising. Installation fees are often charged, but may be free to the customer during promotional time periods. Billing is normally done one month in advance; therefore, at the end of an accounting period an account receivable can exist for uncollected bills or unearned revenue can exist due to cash collected from customers for service not yet provided. Pay-per-view events and additions of premium channels between billing dates can also cause a firm to record accounts receivable.

The industry incurs many operating expenses similar to those of other businesses but has unique expenses as well. Costs of programming average nearly thirty-six percent of total operating costs (Johnson,

1990). Among the other expenses are the franchise fees paid to local governments during ongoing operation of the system. These fees are essentially a gross receipts tax and normally equal to five percent of basic service revenue. Additional expenses include copyright fees for importation of distant signals, pole and conduit rentals for attaching cable, which are paid to telephone and utility companies, and the cost of microwave transmission to import distant signals. Ongoing expenses associated with programming including license fees and pay-television royalties.

Cable television systems have various current assets and current liabilities. Because the industry provides a service, traditional inventory does not exist. However, cable, amplifiers, and other materials used in rebuilding and repairing distribution systems are normally considered to be in the nature of inventory or supplies and classified as current assets. Current liabilities often include amounts payable for programming, especially premium programming that is charged on a per-subscriber basis. Programming that is paid for in advance leads to prepaid expenses being recorded as a current asset. Accounts receivable (payable) from (to) affiliates are reported by some firms. These can arise due to arrangements that provide for management of operations by one firm for another. It can also be the case that these amounts are reported as a result of financing arrangements between affiliated firms. In the latter circumstance these receivables are not part of operating activities. This point is important for the accruals calculations made in Section 3.3.

Cable television systems are required by the 1984 Cable Act to obtain a franchise from the appropriate franchising authority, typically the municipal government. Most franchises are granted for a specific duration, typically fifteen years, and upon completion of the term, the franchise must be renewed (NCTA _Primer_, 1990). The franchise agreement normally specifies facilities, equipment, and service requirements. The

upfront cost is capitalized as an intangible asset and is amortized over the duration of the franchise.

Other intangible assets arise due to purchases of existing systems. Purchase price allocation is done to reflect the value of the franchise and the value of the subscriber list with both of these then recorded as intangible assets. These amounts are a substantial amount of total intangible assets for firms that report items separately. Some firms report noncompete agreements on the balance sheet. The usual residual amount, goodwill, is an intangible asset for almost all firms.

Two aspects of cable television financial accounting information that are important for this study are depreciation and amortization expense. Depreciation is a large amount due to the capital-intensive nature of the business, and amortization expense is a larger portion of total expenses than in many industries because numerous changes in ownership of underlying assets have caused large amounts of intangible assets to be recorded. This study also incorporates subscriber data because many current asset and current liability amounts are related to the number of subscribers.

3.2.3 Sample Descriptive Information

Tables 1 and 2 provide descriptive data on the sample. Table 1 data show the firms were growing during the period of the study. The average number of subscribers more than doubles from Year -4 to Year 3, and averages for nearly all financial statement items increase from year to year. An exception is average net income. Decreasing trends for net income are due at least in part to increasing negative accruals, which are discussed in Section 3.3. The cable television industry firms have substantial recorded intangible assets; because of this industry characteristic, the specifications of the expectations models in Section 3.4 reflect intangible asset data.

TABLE 1
SAMPLE DESCRIPTIVE DATA

in millions	Year 3 n=22	Year 2 n=23	Year 1 n=24	Year 0 n=25	Year -1 n=26	Year -2 n=24	Year -3 n=22	Year -4 n=20
REVENUE								
mean	885.7	883.6	774.8	671.8	577.2	466.9	450.6	447.5
std. dev.	1,101.2	1,067.1	973.6	846.5	756.1	690.3	693.0	682.1
median	436.4	480.7	381.5	358.4	281.8	181.4	168.3	231.9
OPERATING INCOME								
mean	139.5	131.6	128.8	113.3	100.0	81.5	77.5	76.1
std. dev.	185.8	163.0	170.6	153.8	138.0	117.1	109.8	102.0
median	55.8	63.3	44.4	58.7	42.2	33.6	46.7	41.7
NET INCOME								
mean	-9.2	-22.6	8.1	20.0	19.2	31.2	28.0	37.1
std. dev.	91.1	124.9	127.1	111.4	81.5	88.7	61.1	59.9
median	-.1	-8.1	-3.9	2.3	5.0	4.5	8.8	16.6
OPERATING CASH FLOWS								
mean	139.4	126.8	117.8	95.0	105.2	75.1	Cash Flow Statement not required	Cash Flow Statement not required
std. dev.	168.4	142.0	139.0	112.9	113.6	81.3		
median	65.0	61.4	65.3	45.3	57.9	51.9		

TABLE 1 (cont'd)

in millions	Year 3 n=22	Year 2 n=23	Year 1 n=24	Year 0 n=25	Year -1 n=26	Year -2 n=24	Year -3 n=22	Year -4 n=20
TOTAL ASSETS								
mean	1,791.6	1,836.4	1,706.9	1,394.0	1,090.1	873.9	652.0	590.8
std. dev.	2,779.2	2,622.3	2,419.6	1,832.4	1,411.3	979.7	688.6	640.6
median	844.1	982.0	877.2	897.6	692.7	570.1	380.0	380.7
PROPERTY, PLANT, AND EQUIPMENT								
mean	975.0	974.6	836.2	674.9	578.3	501.9	438.2	424.6
std. dev.	1,358.5	130.2	1,142.3	831.4	653.2	542.2	479.6	446.1
median	616.4	582.6	507.0	489.5	371.9	331.4	275.0	285.7
INTANGIBLE ASSETS								
mean	873.9	828.0	750.6	563.9	440.6	310.3	172.3	135.6
std. dev.	1,370.1	1,200.7	1,076.3	846.7	688.7	399.9	212.1	171.2
median	384.6	416.7	323.4	271.0	252.4	230.9	85.8	83.4
SUBSCRIBERS								
mean	1.22	1.21	1.09	.93	.80	.75	.60	.56
std. dev.	2.02	1.9	1.73	1.4	1.17	1.03	.75	.70
median	.44	.44	.41	.40	.42	.41	.30	.30

TABLE 2
SCALED SAMPLE DESCRIPTIVE DATA

Scaled by Total Assets	Year 3 n=22	Year 2 n=23	Year 1 n=24	Year 0 n=25	Year -1 n=26	Year -2 n=24	Year -3 n=22	Year -4 n=20
REVENUE								
mean	.53	.50	.46	.46	.46	.43	.56	.62
std. dev.	.25	.26	.31	.30	.32	.32	.33	.36
median	.43	.36	.31	.33	.39	.39	.47	.44
OPERATING INCOME								
mean	.07	.07	.08	.08	.08	.09	.11	.12
std. dev.	.07	.08	.16	.15	.09	.07	.09	.08
median	.07	.05	.15	.06	.08	.07	.09	.10
NET INCOME								
mean	-.01	-.02	-.01	-.0004	.02	.01	.03	.06
std. dev.	.07	.08	.08	.08	.06	.07	.08	.08
median	.004	-.02	-.02	.001	.02	.01	.03	.04
OPERATING CASH FLOWS								
mean	.10	.09	.08	.08	.09	.09	Cash Flow Statement not required	Cash Flow Statement not required
std. dev.	.05	.06	.08	.07	.08	.07		
median	.09	.09	.06	.06	.09	.07		
PROPERTY, PLANT, AND EQUIPMENT								
mean	.72	.66	.60	.62	.62	.57	.67	.77
std. dev.	.29	.26	.25	.29	.28	.32	.29	.24
median	.66	.60	.53	.53	.53	.53	.37	.67
INTANGIBLE ASSETS								
mean	.50	.47	.44	.36	.35	.29	.20	.18
std. dev.	.25	.22	.20	.21	.20	.19	.13	.11
median	.48	.45	.40	.35	.36	.31	.20	.17

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Scaled measures are used for testing purposes and are presented in
Table 2. Average scaled revenue decreases slightly from the earliest
years, stabilizes, and then increases in later years. This is
consistent with system construction and an increasing denominator in the
early years. Increasing penetration rates in the industry during the
1980s would cause revenues to increase at a faster rate than total
assets. Scaled operating income and operating cash flows are stable
across the years. Patterns of scaled net income are basically
consistent with the unscaled amounts, but the scaled average is negative
in more years than is the unscaled amount.

Data are also presented in Table 2 regarding scaled measures of
gross property, plant, and equipment and gross intangible assets. These
are of interest as each is in the expectations model specified in
Section 3.4. Intangible assets as a percent of total revenue increase
during the 1980s. This is consistent with purchases of systems in
place. Declining percentages for property, plant, and equipment are
consistent with greater increases in the intangibles, and thus,
increases in total assets.

3.3 Measure of Accruals

Section 3.3.1 addresses the measure of accruals without
considering deferred tax information. Section 3.3.2 discusses issues
regarding deferred tax information and specifies a second measure of
accruals reflecting deferred taxes. The two measures have separate
expectations models that are presented in Section 3.4. Discussion in
the paper distinguishes these as Model 1 and Model 2. Presentation of
descriptive data regarding accruals and scaled accruals is in Section
3.3.3.

3.3.1 Measuring Accruals without Deferred Taxes

Total accruals is measured for Model 1 as follows:

$$(EQ\ 1)\quad Accruals_t = -Deprec_t - Amort_t + (CA_t - CA_{t-1}) - (CL_t - CL_{t-1})$$

where: deprec = depreciation expense,
     amort = amortization expense,
     CA = current assets excluding cash and short-term
     investments and excluding items with no related income
     statement effect, and
     CL = current liabilities excluding debt in current
     liabilities and excluding items with no related income
     statement effect.

Current assets and current liabilities are adjusted for items that are disclosed on the balance sheet as current but that have no income statement effects. For example, some firms disclose accounts receivable from affiliates. If the statement of cash flows classifies these transactions as a financing activity, accruals and net income are not affected by changes in the account balance. Accruals is mismeasured if there is no adjustment for such items. Other accounts that have been excluded from the accruals measure based on this criteria include construction in progress and assets to be sold. The ability to examine disclosed information directly is an advantage of collecting data directly from financial statements rather than retrieving information from a computerized databank.

Differences exist among accrual measures that have been employed previously. For example, even the most recent studies differ in whether total current liabilities are adjusted for the current portion of long-term debt (e.g. Gaver, Gaver, and Austin, 1995) or for total debt in current liabilities (e.g. Holthausen, Larcker, and Sloan, 1995). Both of these amounts can be obtained with the Compustat database those researchers use. This study excludes total debt in current liabilities because such specification omits notes payable from current liabilities, and thus, from the accruals measure. This is appropriate because sample firm cash flow statements classified changes in the notes payable as financing activities, which have no income statement effect. Tax-related measurement issues also arise and are discussed in the next subsection.

3.3.2 Measuring Accruals with Deferred Taxes

The treatment of taxes in the accruals measure has not been consistent in previous research. This section first discusses some of that previous research with respect to the treatment of deferred taxes. In addition, tax issues during the time period of this study arise because of changing statutory tax rates and because of the adoption of revised financial accounting standards for taxes. These changes are also discussed in this section, and an alternate specification of accruals that includes deferred taxes is identified.

There have been a variety of approaches to the treatment of deferred taxes in prior research. Healy (1985) includes deferred tax expense only if bonus plan calculations are on an after-tax basis. Jones (1991) reduces current liabilities for income taxes payable for one set of tests because ITC analyses are done on a before-tax basis. The approach in both of the studies is to consider the explicit role of taxes with respect to the research questions investigated. Dechow, Sloan, and Sweeney (1995) do not include deferred taxes. This is likely due to the fact that their study examines the discretionary accruals methodology rather than a specific research question in which the role of taxes can be identified.

Somewhat different from these three studies is Cahan's (1992) measure that includes deferred tax expense despite the fact that there is not an explicit role for taxes in the anti-trust investigations. A problem of including deferred taxes is that the nature of the data is somewhat different from the other components of accruals. Cahan (1992) addresses this matter in a footnote and describes the deferred tax expense as "not actually a 'free move' but a function of other accruals" (p. 82). His conclusion regarding the matter is that, nevertheless, deferred tax should be included as part of the accruals because the effect on net income is jointly determined.

Unlike Healy (1985) and Jones (1991), the cable television industry setting does not have prescribed subsets of financial

information that matter. There is no obvious reason that earnings
management in the cable television industry is less likely to occur
using deferred taxes than it is using other income statement
information. A second measure of accruals is identified that includes
deferred taxes and support for this measure is then discussed. The
Model 2 measure is as follows:

$$(EQ\ 2)\quad Accruals_t = -Deprec_t - Amort_t - Deftax_t * \frac{.34}{mtr_t} + (CA_t - CA_{t-1}) - (CL_t - CL_{t-1})$$

where: deprec, amort, CA, and CL are defined in Equation (1),
          deftax = deferred tax expense (benefit), and
          mtr = marginal statutory tax rate in year t.

An important event affecting a firm's deferred taxes is that the
time period of this study includes the Tax Reform Act of 1986 (TRA 86),
which reduces the maximum statutory corporate tax rate from forty-six to
thirty-four percent effective July 1, 1987. The effective date means
the following for a firm with a calendar year-end: a blended rate of
forty percent applies for the year ending December 31, 1987; thirty-four
percent applies for the year ending December 31, 1988, and forward. The
transition blended rates differ depending on precise fiscal year-ends.

Statement of Financial Accounting Standards No. (SFAS) 96,
"Accounting for Income Taxes," must also be considered as it was issued
during the time period of the study. The original effective date of the
standard is fiscal year-ends beginning after December 31, 1988, and
early adoption could also be elected. Subsequently, the effective date
was delayed with SFAS 109, "Accounting for Income Taxes," superseding
SFAS 96. The effective date of SFAS 109 is fiscal year-ends beginning
after December 15, 1992. The change in statutory tax rates combined
with firms' varying selection of adoption dates potentially has a large
effect on net income, liabilities, and accruals in the year of adoption.
These tax issues matter with respect to accruals data because modeling
assumptions regarding nondiscretionary accruals are violated if these
issues are ignored.

For purposes of this study, the adoption of SFAS 96 is assumed not to affect accruals. Only four firms elected early adoption of the statement; the cumulative effects are disclosed separately on the income statement and in all four cases increase net income. The cumulative effects are not included in the accruals measure. None of the four firms provides enough information to determine a current year effect of the early adoption.

The effect of tax rate changes is reflected in the Equation (2) specification of accruals. An adjustment is made to remove the effect of the tax rate changes on deferred taxes by calculating each year's deferred tax expense (benefit) with the post-TRA 86 maximum marginal rate of thirty-four percent. The calculation affects years prior to Year 0 only because those are the years in which the statutory tax rate is above thirty-four percent. The adjustment should reduce rate-related noise in the accruals. It is also intended to avoid incorrect interpretations that deferred tax amounts caused solely by exogenous tax rates are amounts subject to managerial influence over accruals.

An important characteristic of deferred taxes that has not been addressed in previous research is that amount, particularly the sign, is largely determined by financial accounting income or loss. Pre-tax net income generally gives rise to deferred tax expense, and pre-tax losses generally give rise to deferred tax benefit. A measure of expected accruals with respect to Model 2 total accruals is expected to be noisy because the cable television industry firms do not have consistent patterns of income or loss over time. Therefore, a second expectations model is specified in Section 3.4 that corresponds to the Equation (2) accruals measure.

3.3.3 Descriptive Information on Accruals

Tables 3 and 4 provide descriptive information on accruals and scaled accruals. Table 3 data include information regarding total accruals measures and two components of the total accruals, depreciation expense and amortization expense. The Equation (1) specification that

includes no deferred tax data is the Model 1 measure. A measure with no
rate adjustment to deferred taxes is included to facilitate comparisons
to the Equation (2), Model 2, measure that adjusts for marginal
statutory tax rates. The adjustments are necessary only in Year -3 to
Year -1, so those are the years in which the accruals measures differ
form each other.

All three measures are negative and increasing over the time
period of the study. The negative amounts are expected because, as the
table shows, the firms have relatively large and increasing depreciation
and amortization expense. The increasing trend of total accruals is
consistent with descriptive data in Table 1 indicate sample firms are
growing.

Both measures that include deferred taxes are somewhat more
negative than the total accruals measure with no taxes. This indicates
that on average firms have greater amounts of deferred tax expense as
opposed to benefit. Adjusting for the statutory tax rate differences
results in total accruals that are slightly less negative than the
measure that simply includes deferred taxes. This is expected because
the effect of the higher tax rates in Years -3 to 0 is removed. Testing
that is done in this study uses only the adjusted measure.

Table 4 presents the accruals measures scaled by total assets.
The scaled amounts show generally increasing negative trends. This is
also the case for the two primary components of total accruals,
depreciation expense and amortization expense. Univariate statistics in
Chapter 4 provide information on the changes in accruals between years.

TABLE 3
ACCRUALS DESCRIPTIVE DATA

in millions	Year 3 n=22	Year 2 n=23	Year 1 n=24	Year 0 n=25	Year -1 n=26	Year -2 n=24	Year -3 n=22
MODEL 1 ACCRUALS							
mean	-116.2	-124.9	-115.3	-75.6	-76.3	-46.5	-37.2
std. dev.	170.7	145.1	141.0	86.5	82.3	43.1	49.5
median	-76.0	-76.0	-64.2	-45.9	-70.1	-4.1	-18.8
ACCRUALS WITH DEFERRED TAXES							
mean	-119.3	-125.8	-113.8	-82.2	-82.7	-58.2	-46.0
std. dev.	181.7	148.0	132.1	94.4	90.4	57.1	58.7
median	-72.1	-76.1	-65.0	-48.2	-64.1	-45.2	-26.4
MODEL 2							
mean	same as measure with accruals	same as measure with accruals	same as measure with accruals	same as measure with accruals	-81.7	-55.2	-43.7
std. dev.					89.0	53.3	56.0
median					-65.0	-43.9	-24.2
DEPRECIATION EXPENSE							
mean	79.5	79.2	64.3	52.5	45.4	34.2	33.4
std. dev.	114.2	106.9	85.8	63.5	50.5	35.2	38.0
median	49.6	48.7	44.9	35.7	33.5	21.0	20.4
AMORTIZATION EXPENSE							
mean	38.4	39.9	34.1	26.6	16.4	8.5	5.1
std. dev.	43.0	43.5	36.2	29.0	17.7	7.7	5.5
median	20.9	25.6	23.0	13.6	9.6	7.4	3.3

TABLE 4
SCALED ACCRUALS DESCRIPTIVE DATA

Scaled by Total Assets	Year 3 n=22	Year 2 n=23	Year 1 n=24	Year 0 n=25	Year -1 n=26	Year -2 n=24	Year -3 n=22
MODEL 1 ACCRUALS							
mean	-.09498	-.09429	-.08722	-.0775	-.07792	-.0677	-.06533
std. dev.	.06	.04	.04	.04	.04	.04	.06
median	-.089	-.094	-.009	-.009	-.078	-.066	-.073
MODEL 2 ACCRUALS							
mean	-.09528	-.095	-.08752	-.07997	-.08379	-.07896	-.0828
std. dev.	.06	.04	.04	.04	.04	.05	.05
median	-.084	-.085	-.079	-.067	-.083	-.073	-.084
DEPRECIATION EXPENSE							
mean	.064	.057	.050	.050	.048	.040	.053
std. dev.	.04	.03	.03	.03	.03	.03	.02
median	.054	.050	.044	.040	.039	.033	.053
AMORTIZATION EXPENSE							
mean	.035	.033	.030	.027	.019	.012	.011
std. dev.	.03	.03	.03	.03	.02	.01	.01
median	.024	.026	.019	.014	.012	.009	.006

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3.4 Expectations Model for Discretionary Accruals

Total accruals consist of nondiscretionary and discretionary components, which can be represented as follows:

$$(EQ\ 3)\quad TA = NA + DA$$

The discretionary accruals measure is used in previous research to test earnings management hypotheses. Studies predict positive or negative discretionary accruals depending on salient incentives facing the manager. Models are based on total accruals (Healy, 1985; Jones 1991) or changes in accruals (DeAngelo, 1986). Comparisons are made between the measures for either (1) periods of predicted versus periods of no predicted management (DeAngelo, 1986) or (2) modeled expected accruals for the predicted year of management versus actual accruals (Jones, 1991). One-period ahead measures (DeAngelo, 1986) as well as long time-series parameter estimation (Jones, 1991) have been done.

Dechow, Sloan, and Sweeney (1995) provide a comprehensive review and evaluate the following alternative models for detecting earnings management: Healy (1985), DeAngelo (1986), Jones (1991), a modified Jones model, and an industry model based on Dechow and Sloan (1991). The authors conclude that all models produce reasonably well-specified tests. In addition they state that more sophisticated models do not reduce the incidence of type I errors relative to simpler models, but more sophisticated models do provide more powerful tests compared to simpler models.

The approach in this paper is to use an expectation model for testing the hypotheses. This is consistent with the development in the literature; for example, Cahan (1992) and Gaver, Gaver, and Austin (1995) use only expectation models. Holthausen, Larcker, and Sloan (1995) present total accruals in addition to expectations model results; however, the study extends Healy's (1985) paper, so inclusion of total accruals may have been done primarily to facilitate comparisons to the earlier paper. Information on total accruals in Table 2, scaled

accruals in Table 3, and changes in accruals in Chapter 4 is presented primarily for descriptive purposes.

An expectations model for total accruals is intended to control for changes in economic circumstances that firms face. The specific data and financial information to be included in this study take into account model characteristics from prior research as well as cable television industry characteristics. The approach of modeling expected accruals based on other data using an estimation period consists of the following steps: (1) parameter estimates are calculated using the estimation period data; (2) the parameter estimates are applied to prediction period data to measure expected accruals; (3) the difference between actual and expected accruals is the measure of discretionary accruals.

The steps for the cable television industry Model 1 are represented as follows:

$$(EQ\ 4)\ Reported\ Accruals_{i,t} = \alpha_{i,t} + \beta_1 PPE_{i,t} + \beta_2 IA_{i,t} + \beta_3 SUBS_{i,t} + \epsilon_{i,t}$$

$$(EQ\ 5)\ Expected\ accruals_{i,t} = A_{i,t} + B_1 PPE_{i,t} + B_2 IA_{i,t} + B_3 SUBS_{i,t}$$

$$(EQ\ 6)\ DA_{i,t} = Reported\ accruals_{i,t} - Expected\ accruals_{i,t}$$

where: Accruals is defined in (EQ 1),
PPE= gross property, plant, and equipment,
IA= gross intangible assets,
SUBS= number of basic cable television service subscribers,
A, B1, B2, B3 are the parameter estimates from (EQ 4),
DA= discretionary accruals, i= firm, and t= time period.

The expectations model includes financial information identified by Jones (1991) that captures expected relations between financial data and accruals; specifically, property, plant, and equipment is included in the model. This measure is expected to be related to nondiscretionary accruals based on the assumption that a large portion of the total depreciation expense in a given period is nondiscretionary in that period (DeAngelo, 1986; Jones, 1991).

In addition, the expectations model includes gross intangible assets because of the likely affect on the amortization expense component of nondiscretionary accruals. Although no previous research has included gross intangible assets in the expectations model, descriptive data in Table 1 show that cable television industry firms have substantial amounts of recorded intangibles.

The purpose of including the gross intangible assets is to capture the nondiscretionary component of total accruals. In addition, its inclusion in the expectations model is consistent with a recent study regarding manager choice related to intangible assets and amortization expense. Hall (1993) examines the determinants of goodwill amortization periods. Political costs theory using the firm size proxy tests the hypothesis that large firms choose shorter amortization periods for goodwill. The independent variable is the number of years in the amortization period and is specified as the maximum if a range of years is reported by the firms. The analysis is done for 149 firms in 1985, and the results are consistent with the hypothesis. Note that the independent variable specification does not measure directly an income statement effect of the choice. This study's use of discretionary accruals will provide more direct evidence regarding such effects.

The final parameter is the number of basic service subscribers. This item is assumed to be determined exogenously and is used to reflect and control for growth and the effect of changes in firm circumstances that are assumed to affect nondiscretionary accruals. For example, the number of subscribers should affect accounts receivable from customers at year-end. The fact that subscriber data are important in the industry is shown by the fact that information on sales of systems have historically been reported based on value per subscriber (Databook).

Preliminary testing showed that the percent of revenue derived from cable television operations is a good predictor of accruals in some expectations specifications. The additional tests described in Section

3.9 include an alternate model that substitutes the percent measure for the subscriber measure.

Revenue data have been used in previous research (Jones, 1991), but such specification measures discretionary accruals with error if earnings are managed by exercising discretion over those revenues (Dechow, Sloan, and Sweeney, 1995). This is a problem because the test power is reduced if the extracted nondiscretionary measure includes what is, in fact, a discretionary component of total accruals. It is also the case that no theoretical prediction can be made for the sign of a revenue variable (Jones, 1991). This is a second reason not to include a revenue variable in the model specification.

Equation (2) in Section 3.3.1 provides a second specification of total accruals, Model 2, that includes the income statement effect of deferred taxes. The discussion of this measure of total accruals states that there is expected to be a relation between pre-tax net income or loss and deferred taxes such that pre-tax income (loss) is expected to be associated with deferred tax expense (benefit). Expectations Model 2 corresponds to the Equation (2) accruals measure. Model 2 adds a dummy variable to Equations (4) and (5). The dummy variable, PRETAX, is set equal to one if pre-tax income is negative and the firm is a taxed entity; otherwise, the dummy is set to zero. It is expected that there will be a positive relation between the dummy variable and the Equation (2) accruals measure because firms with pre-tax losses are more likely to have deferred tax benefits, a positive accrual. Equation (4) is modified for the Model 2 expectations specification as follows:

$$(EQ\ 7) \quad Accruals_{i,t} = \alpha_{i,t} + \beta_1 PPE_{i,t} + \beta_2 IA_{i,t} + \beta_3 SUBS_{i,t} + PRETAX_{i,t} + \epsilon_{i,t}$$

3.5 Measure of Importance of Cable Television Operations

The measure of the importance of the cable television operations to the firm is based on the fact that some sample firms are diversified

into lines of business other than cable television operations. In order to classify a firm as operator-only or diversified, information from the segment data financial statement footnote is used. A firm that identifies only one segment is classified as an operator-only firm. The cable television operations are assumed to be more important for the operators-only group because proposed regulations are expected to affect a greater portion of the total firm operations; further, diversified firms are presumed to have more opportunities to divert firm resources to other lines of business that are not subject to potential regulatory restrictions.

Examining the subset of sample firms with the strongest incentives to manage earnings is intended to provide a more powerful test of Hypothesis 1 than a test that includes all sample firms. Statistical tests that distinguish between the firms provide information in order to assess Hypothesis 2. Testing is done by calculating discretionary accruals for the operators-only group with the hypothesis that the discretionary accruals are less than zero. In addition, comparisons of discretionary accruals between the two subsets of firms are also made with the hypothesis that the operators-only discretionary accruals are less than the diversified group discretionary accruals. The two ways of testing Hypothesis 2 are done because whether one or the other is more relevant depends on the Hypothesis 1 test results. For example, if data are consistent with Hypothesis 1, the comparison test provides information to determine if the magnitude of discretionary accruals for the operators-only group is even more negative than for the entire sample. A correlation is also calculated between discretionary accruals and the revenue percent measure with the Hypothesis 2 prediction that it will be negative.

The final means of assessing Hypothesis 2 is a multivariate approach in which discretionary accruals are regressed on a dummy variable that distinguishes between operators-only and diversified firms and three other independent variables. One of these is a measure

related to Hypothesis 3; this variable is discussed in Section 3.6. Section 3.7 discusses control variables for firm performance and size that are also included in the multivariate test. The multivariate test is done primarily to rule out alternate explanations for discretionary accruals.

3.6 Measure of Importance of Proposed Regulations

The regulations proposed during the time period of Congressional scrutiny include limitations on rates charged for basic cable television service. This is consistent with the pre-1984 Cable Act era; in that regulatory time period only basic service rates were subject to regulation. Therefore, the importance to the firm of the proposed regulations is assumed to be a function of the basic service rates the firm charges.

Regulations proposed to limit these rates by reference to benchmarks. The benchmarks are established using existing rates in designated markets. Firms with the highest existing rates would be expected to have the largest rate decreases in order to comply with the benchmarks. Therefore, firms charging the highest basic service prices are assumed to be firms for which the proposed regulations are the most harmful with the assumption that these firms have the greatest incentives to manage earnings. Similar to Hypothesis 2, distinguishing between sample firms based on earnings management incentives provides a more powerful test of Hypothesis 1 than tests done on the full sample.

Annual average monthly basic service rates are published in the Databook. December 31 prices are used because that is the only price information presented in the Databook. The Databook lists only one price that corresponds to the firms that have common control. The price listed was used for the other member as well. For example, Comcast and Comcast, L.P., have the same price in the data set. This approach is done for four firms.

Hypothesis 3 is tested using discretionary accruals and with a correlation. The sample is divided into two groups according to average monthly basic service rates as of the beginning of Years 1 through 3. Prices as of the same date are used even though December 31 is not the year-end for all sample firms, so the dates are actually the beginning-of-year prices for only December 31 year-end firms. Discretionary accruals are calculated for the high-price group with the hypothesis that the discretionary accruals are less than zero. Comparisons of discretionary accruals between the two groups are also made with the prediction that the high-price group of firms have more negative accruals than low-price group of firms. The second approach measures the correlation between discretionary accruals and basic service prices with the prediction that the correlation is negative.

As discussed in Section 3.5, a multivariate approach is also used to assess Hypotheses 2 and 3 while controlling for firm performance and firm size.

3.7 Potential Confounds of Firm Performance and Firm Size

Tests are done in order to assess potential alternate explanations that discretionary accruals are due to firm performance or firm size. Section 2.2.2 discusses the issue of potential confounds in previous studies due to correlated firm performance, and Section 1.2.1 discusses problems with the firm size proxy that has been used in previous political costs research. Examining relations between these two items and accruals and discretionary accruals measures aids in assessing whether an omitted variable problem exists in this study.

Firm performance is tested as an alternate explanation because large, negative accruals have been shown to be related to poor performance (DeAngelo, DeAngelo, and Skinner, 1994). If cable television industry firms are performing poorly, the discretionary accruals measure is potentially biased in the predicted direction of earnings management. A positive relation between accruals and firm

performance indicates that the alternate explanation of declining firm performance causing negative discretionary accruals cannot be ruled out. A negative relation between accruals and firm performance suggests that the discretionary accruals calculated in this study are potentially biased in the positive direction; this biases against rejection of the null hypothesis of no earnings management. The following four firm performance measures are examined: change in revenues, change in cash flow from operations, change in net income, and a binary classification variable that separates the sample based on whether a firm incurs a net loss or has net income.

Size is tested in order to assess the possibility that study results are consistent with some unhypothesized aspect of firm size causing the accruals. For example, a negative relation between accruals and size suggests that the firm size proxy for political costs, rather than the regulatory scrutiny, is an alternate explanation for negative discretionary accruals. Two size measures are used, total assets and total revenues.

Descriptive information is provided by calculating correlations between firm performance measures and changes in accruals and between firm size measures and changes in accruals. Two sets of time periods are examined. The first set contains Years 1 and 2, and the second set is for all years in the study. Analysis of the first set is done in order to focus on the prediction periods, and analysis of the second set is intended to provide general information on cable television industry associations between changes in accruals and aspects of firm performance and firm size.

Correlations are also computed between measures of the two factors and discretionary accruals. This provides the most direct evidence on whether these items affect conclusions made based on hypothesis testing. Statistical analysis of the effect of the two factors on discretionary accruals in Years 1 and 2 are done in a multivariate regression analysis as well. This approach provides for

meaningful inferences regarding the two hypotheses because regression analysis controls for the effects of each of the independent variables simultaneously. Alternate explanations for discretionary accruals are more readily ruled out with this approach.

3.8 Test Specifications

Year 1 and Year 2 identify the two prediction periods; the Years 0, -1, -2, and -3 are the estimation period, and Year 3 data are analyzed in order to assess post-prediction period accounting information. No predictions are made regarding discretionary accruals in Year 3. This section is separated into five subsections. The first three correspond to the three hypotheses listed in Section 3.1. Section 3.8.4 identifies tests that are intended to assess whether correlated firm performance or firm size appear to be confounding results in this study. Section 3.8.5 identifies the multivariate regression that tests Hypotheses 2 and 3 while controlling for firm performance and firm size.

3.8.1 Hypothesis 1

Estimation using the expectations model to calculate discretionary accruals is carried out based on Equations 4 through 6. The regression equation specification to establish the estimation period parameters for Model 1 is as follows:

$$\frac{Accruals_{i,t}}{Assets_{i,t}} = \alpha \frac{1}{Assets_{i,t}} + \beta_1 \frac{PPE_{i,t}}{Assets_{i,t}} + \beta_2 \frac{IA_{i,t}}{Assets_{i,t}}$$

$$+ \beta_3 \frac{SUBS_{i,t}}{Assets_{i,t}} + \epsilon_{i,t} \quad t = -3,...,0$$

where: Accruals, PPE, IA, and SUBS, are defined in Equation (4), Assets= total assets, i=firm, and t=year.

Scaling all measures by total assets is consistent with Jones (1991) and is intended to reduce statistical problems arising from heteroskedasticity.

The estimation period parameters are applied to actual data in calculations of expected accruals for Year 1, Year 2, and Year 3; the difference between the expectation and the actual scaled accruals amount is the measure of discretionary accruals. Note that the discretionary accruals is, therefore, also a scaled amount. Hypothesis 1 for this specification is tested as follows:

$$(Model\ 1)\ DA_{i,t}\ <\ 0\quad t = 1, 2$$

where: DA=discretionary accruals, i=firm, t=year.

Sensitivity analysis will examine whether there is any difference in conclusions based on this test if the estimation periods include all periods preceding Year 2 and Year 3 for purposes of calculating expectation parameters for those two years. This is addressed in Section 3.9.2.

An alternate specification of total accruals that includes deferred taxes is represented by Equation (2). Corresponding expectation model characteristics are discussed in Section 3.4 and reflected in Equation (7). Thus, the precise specification for establishing Model 2 estimation period parameters is as follows:

$$\frac{Accruals_{i,t}}{Assets_{i,t}} = \alpha\ \frac{1}{Assets_{i,t}} + \beta_1 \frac{PPE_{i,t}}{Assets_{i,t}} + \beta_2 \frac{IA_{i,t}}{Assets_{i,t}}$$

$$+ \beta_3 \frac{SUBS_{i,t}}{Assets_{i,t}} + PRETAX_{i,t} + \epsilon_{i,t}\quad t = -3,...,0$$

where: PPE, IA, and SUBS are defined in Equation (4),
             Accruals is equal to Equation (4) accruals minus(plus)
             deferred tax expense(benefit),
             PRETAX=1 if pre-tax income is positive; otherwise PRETAX=0,
             Assets=total assets, i=firm, and t=year.

Expected accruals is compared to actual scaled accruals with the related test specification as follows:

$$(\textit{Model } 2)\ DA_{i,t}\ <\ 0\quad t = 1,\ 2$$

where: DA=discretionary accruals, i=firm, t=year.

3.8.2 Hypothesis 2

Data are classified into two groups for purposes of testing Hypothesis 2. The two groups are based on whether a firm operates in more than one business segment. The number of operator-only firms for Year 1 is eleven and is ten for both Year 2 and Year 3. Hypothesis 2 is tested by calculating discretionary accruals for the operators-only group; the test specifications correspond to tests of Hypothesis 1. Hypothesis 2 is also tested by comparing discretionary accruals between the two groups as follows:

$$DA_{i,t}\ <\ DA_{j,t}\quad i,\ j\text{=firm},\ t\text{=1, 2}$$

where: DA=discretionary accruals,
            i= operator firm, j= diversified firm, and t=year.

The final test specified in order to test Hypothesis 2 is a correlation. This test is as follows:

$$\rho_{DA,REV}\ <\ 0$$

where: DA=discretionary accrual,
            and REV=percent of revenue derived from cable operations.

3.8.3 Hypothesis 3

Data are classified into two groups for purposes of the first test of Hypothesis 3. The groups are based on the basic cable television service prices charged by firms. The high-price group is established based on whether a firm charges above the median price. One firm-year has not price data available in the Databook, so these tests have forty-six firm-years instead of forty-seven. Hypothesis 3 is tested by calculating discretionary accruals for the high-price group; the test specifications correspond to tests of Hypothesis 1. Hypothesis 3 is also tested by comparing discretionary accruals between the high-price and low-price groups as follows:

$$DA_{i,t} \ < \ DA_{j,t} \quad i, j = firm, \ t = 1, 2$$

where: DA=discretionary accruals,
             i=high-price firm, j=low-price firm, and t=year.

The second means of testing Hypothesis 3 is based on a correlation between the discretionary accruals measure and the basic service prices. The test specification is as follows:

$$\rho_{DA,P} \ < \ 0$$

where: DA=discretionary accrual and P=basic service price.

3.8.4 Tests to Assess Correlated Performance and Size

Correlations are computed between change in accrual measures and the four firm performance measures as well as the two size measures. The correlation information is intended to be descriptive as it does not directly test whether the measure of importance in this study, discretionary accruals, is affected by these items. Correlations are also computed using discretionary accruals. The discretionary accruals correlations are still descriptive in nature because the simple correlations do not necessarily indicate that partial correlations that control for the effects of other potential explanatory variables will be of similar sign or significance level. For this reason, the multivariate tests will include a measure of each potential confound regardless of the results of the simple correlations.

3.8.5 Multivariate Tests

A multivariate regression is calculated in order to assess the hypothesized relations between discretionary accruals and firm diversification, related to Hypothesis 2, as well basic service prices, related to Hypothesis 3. The regression equation also includes control variables and is specified as follows:

$$DA_{i,t} = REVPERCT_{i,t} + BASICPR_{i,t-1} + CHREV_{i,t} + LNASSETS_{i,t} + \epsilon_{i,t}$$

where: DA= discretionary accrual,
             REVPERCT= percent of firm revenues derived from cable
             operations,

BASICPR= mean basic cable television service price,
CHREV= change in revenue scaled by total assets,
LNASSETS= natural log of total assets,
i= firm, and t= year.

A negative coefficient on REVPERCT is consistent with Hypothesis 2, and a negative coefficient on BASICPR is consistent with Hypothesis 3. The change in revenue is considered a general indicator of performance, and the natural log of total assets is commonly used as a measure of size. No predictions are made regarding the sign of the coefficients on CHREV and LNASSETS. Although net income performance measures are used in correlation tests, these measures pose a problem in the regression analysis. Decreased net income is caused at least in part by negative accruals, so a regression model is misspecified if net income measures are used as independent variables when, in fact, the dependent variable, discretionary accruals, causes net income effects.

3.9 Additional Tests

Various specification tests and sensitivity analyses are done. The purpose of these tests is to assess the robustness of test results. Included in this additional testing is an alternate specification of the accruals expectations model; this model is specified in Section 3.9.1. Section 3.9.2 addresses the effect of the specified years included in the estimation period. Section 3.9.3 addresses the possible influence of tax motivated behaviors of firm managers during the estimation period. Section 3.9.4 presents the sensitivity of test results to the inclusion of various sample firms.

3.9.1 Alternate Expectations Model

Alternate specifications of expectations Model 1 and Model 2 are tested and referred to as Model 3 and Model 4, respectively.

Model 3 is specified as follows:

$$\frac{Accruals_{i,t}}{Assets_{i,t}} = \alpha \frac{1}{Assets_{i,t}} + \beta_1 \frac{PPE_{i,t}}{Assets_{i,t}} + \beta_2 \frac{IA_{i,t}}{Assets_{i,t}}$$

$$+ \beta_3 \frac{REVPERCT_{i,t}}{Assets_{i,t}} + \epsilon_{i,t} \quad t = -3, \ldots, 0$$

where: Accruals, PPE, and IA are defined in Equation (4),
           REVPERCT=percent of revenue derived from cable operations,
           Assets=total assets, i=firm, and t=year.

Model 4 is the same as Model 3 except that the accruals measure includes deferred taxes and the independent dummy variable, PRETAX, is included.

The only difference in the two alternate models is that subscriber data are replaced with the percent of revenue derived from cable television operations. Preliminary analysis for this study showed that firms with substantial cable television operations tend to have greater negative accruals. This is likely to be the case due to the capital-intensive nature of the operations as well as the fact that turnover of properties has led to substantial amounts of recorded intangible assets. If this relation was ignored in certain test specifications, these tests were biased toward detecting earnings management in the predicted direction.

The subscriber and revenue percent measures are both statistically significant if included separately in a regression model; however, if both the subscriber data and revenue percent data are included in one model, only the revenue percent coefficient is statistically significant. The two measures are statistically correlated (correlation = .57; statistically significant at probability =.0001). Neither parameter increases the explanatory power of the expectations model, assessed by adjusted R^2, by very much compared to a model with only property, plant, and equipment and intangible assets. The subscriber measure is in the main model because it was originally specified and

because the revenue percent measure is an ad hoc parameter identified in pilot testing.

An additional reason for examining the revenue percent measure in this way is to provide information regarding the use of the measure for purposes of testing Hypothesis 2. The revenue percent measure is used as a proxy for the importance of the cable television operations. It is possible that the measure simply captures normal characteristics of the cable television operations. Including the measure in the expectations model controls for nondiscretionary accruals that are due to normal activities of the cable television operations.

3.9.2 Estimation Period Years

The estimation period for test specifications of Models 1 and 2 included data from Years -3 through 0 that are then used for all three years that discretionary accruals are calculated, Years 1 through 3. Sensitivity to this specification is assessed by using an alternate set of years in the estimation periods. Year 2 expected accruals will be tested including Year 1 in the estimation period, and Year 3 expected accruals will be tested including Year 1 and Year 2 data in the estimation period. Year 1 estimation parameters and corresponding discretionary accruals do not change. Discretionary accruals are recalculated for the four models; additional tests are done if Hypothesis 1 test results are different from the original results.

The alternate estimation periods are examined because there are trade-offs between the two approaches. Using a single set of expectation parameters separates the pre- and post-Congressional scrutiny time periods; this is consistent with the assumption that the only difference between the time periods that affects accruals is the scrutiny. A contrary assumption is that firm and economic characteristics in all periods affect accruals in the next period to some extent. If this assumption is valid the second test specification is more valid than the first. The second specification is not as powerful at detecting earnings management if it does occur in both Year

1 and Year 2. This is because the Year 2 expectation will be more
negative based on including Year 1 actual accruals that are more income-
decreasing than would have been the case with no earnings management.

3.9.3 Estimation Period Tax Motivations

Models 2 and 4 include tax data. The discussion of tax issues in
Section 3.3.2 includes information regarding changes in statutory tax
rates during the estimation period years. Managers of firms that face
declining future tax rates have incentives to shift net income to the
future periods (Scholes, Wilson, and Wolfson, 1992).

The estimation period marginal statutory tax rates decline from
Year -2 through Year 0. Therefore, incentives exist to shift net income
from Year -2 to Year -1, the year of transition blended rates, and from
Year -1 to Year 0. The Year 0 and Year 1 rates are the same, so no
income-shifting incentive is assumed to exist for those years. For
purposes of this study, it is possible that tax motivations cause
income-increasing discretionary accruals in Year -1 and Year 0. If this
is the case, the Year 1 discretionary accruals are potentially biased
downward, the same direction as the Hypothesis 1 earnings management
prediction.

The cable television industry sample includes firms for which tax
incentives appear to differ across firms. The sample is divided into
two groups based on income-shifting motivations. The four partnerships
are assumed not to have income-shifting motivations because no entity-
level tax is incurred. Two firms report no income statement tax
information, and these two firms are also considered not to have income-
shifting motivations. Financial statement tax footnotes are reviewed
for the remaining corporations. Firms that report net operating loss
carryovers and investment tax credit carryovers are considered not to
have income-shifting motivations. The rest of the firms are classified
as the firms with income-shifting motivations.

The four regression expectations models are recalculated with a
firm-year dummy. The dummy is equal to one for tax-motivated firms in

Year -1 and Year 0. Based on the classification criteria seven firms and fourteen firm-years are considered to have tax-related income-shifting motivations. If tax incentives affect the level of accruals, the dummy variable will be positive. Alternate test specifications compare mean scaled accruals and mean scaled changes in accruals between tax-motivated firm-years and non-tax-motivated firm-years. Tests assess whether the tax-motivated firm-year accruals measures are less negative.

3.9.4 Sensitivity to Inclusion of Specific Sample Firms

Sample firms are considered to be a homogeneous group, and tests are done on the full sample based on this assumption. Tests to assess whether results are affected by certain types of firms are done in order to provide confidence in the full-sample results. These tests include assessing whether data of sample firms that are partnerships affect the results in a manner systematically different from data of corporations. The sensitivity of the results to the inclusion of firms with common control is also assessed. In addition, tests are recalculated on the subset of firms with December 31 year-ends.

The effect of the four partnerships is assessed by recalculating the four expectations models with a dummy variable for the partnerships. This test provides evidence on whether the partnership accruals differ systematically from the corporation accruals on an ongoing basis. A second test is to compare mean discretionary accruals for the partnerships with the corporations. Finally, a test of robustness of test results to partnership data is to use Model 1 without partnership data. Expectations parameters are calculated, and discretionary accruals are tested.

There are three groups of firms subject to common control. Comcast and Scripps Howard are represented by two firms, and Jones is represented by three firms. It is possible that the data of firms subject to common control are not independent. Therefore, the Model 1 expectations regression is recalculated using only the largest firm from these groups. Discretionary accruals are also recalculated. There is

some overlap with the partnership tests as two of the four excluded firms are partnerships.

The final test that distinguishes between sample firms recalculates tests using December 31 year-end firms only. There are eighteen firms with December 31 year-ends. This is done because the identification of periods of predicted earnings management focuses on December 31. In addition, the price data used for Hypothesis 3 testing are December 31 prices. Model 1 is recalculated using only the eighteen firms, and discretionary accruals are tested.

This chapter presents univariate statistical analysis in Section 4.1. The next two sections contain the accruals expectations models, calculations of discretionary accruals, and tests of hypotheses. Section 4.2 presents results based on the accruals measure without taxes, Model 1, and Section 4.3 presents results based on the measure of accruals that includes deferred taxes, Model 2. Section 4.4 provides descriptive information regarding changes in accruals and the potential confounding variables, firm performance and firm size. In addition, the multivariate analysis of discretionary accruals is presented. Section 4.5 presents overall conclusions including a table summarizing test results. The chapter finishes with results related to additional tests in Section 4.6.

4.1 Univariate Analysis

Univariate analysis is done to provide descriptive information. Table 5 presents data for scaled changes in revenue, cash flows from operations, and net income. These items are the same as the items investigated in Section 4.2 regarding potential firm performance confounds. Univariate analysis for changes in accruals between years is presented in Table 6. Both the Model 1 and Model 2 accruals measures are included.

Table 5 data show that scaled revenue changes are positive and statistically significant every year. This is consistent with characterization of the cable television firms as members of a growth industry. Changes in cash flow from operations tend to be positive but statistically significant in only two years. Net income trends are different from the other two items. Scaled changes in net income decline during the time period of the study; however the negative changes tend not to be statistically significant. The Year 2 negative

TABLE 5
UNIVARIATE STATISTICS
SCALED CHANGES IN ITEMS

	Year 3 n=22	Year 2[1] n=23	Year 1[1] n=24	Year 0 n=25	Year -1 n=24	Year -2 n=22	Year -3 n=20
REVENUE							
mean	.027***	.045***	.047***	.059***	.082***	.067***	.056***
std. dev.	.04	.04	.06	.05	.07	.05	.04
median	.028##	.040###	.049###	.059###	.086###	.050###	.060###
CASH FLOW FROM OPERATIONS							
mean	.003	.007	.012**	.001	.019	Cash Flow statement not required	Cash Flow statement not required
std. dev.	.31	.02	.026	.03	.07		
median	.010	.002	.009##	.003	.020###		
NET INCOME							
mean	.015	-.015**	-.007	-.016	.0005	-.013	-.018
std. dev.	.05	.03	.04	.05	.06	.06	.11
median	.010#	-.012##	-.004	-.01#	-.005	-.007	.003

[1] periods of predicted earnings management
Year 1 includes fiscal year ends from 8-31-89 through 5-31-90
Year 2 includes fiscal year ends from 8-31-90 through 5-31-91

*, **, *** t-test that mean = 0 significant at level less than .10, .05, .01
#, ##, ### Wilcoxon signed-rank test that median = 0 significant at level less than .10, .05, .01

Changes: $\dfrac{Item_t - Item_{t-1}}{Total\ Assets_t}$

TABLE 6
UNIVARIATE STATISTICS
SCALED CHANGES IN ACCRUALS

	Year 3 n=22	Year 2 n=23	Year 1 n=24	Year 0 n=25	Year −1 n=24	Year −2 n=22	Year −3 n=20
MODEL 1							
mean	.004	−.008*	−.020***	−.011	−.021*	−.030***	.002
std. dev.	.04	.03	.03	.05	.05	.05	.05
median	−.007	−.009##	−.021###	−.006	−.022##	−.027###	−.006
MODEL 2							
mean	.005	−.008*	−.018***	−.009	−.019*	−.031**	−.002
std. dev.	.04	.03	.03	.04	.05	.05	.05
median	−.007	−.009##	−.018###	−.010	−.020##	−.026###	−.010

*, **, ***   t-test that mean = 0 significant at level less than .10, .05, .01
(one-sided in Years 1 and 2)

#, ##, ###   Wilcoxon signed-rank test that median = 0 significant at level less than .10, .05, .01
(one-sided in Years 1 and 2)

Changes: $\dfrac{Item_t - Item_{t-1}}{Total\ Assets_t}$

change is statistically significant, which is due in part to increasingly negative accruals. Although the net income change is not a test, the change is consistent with earnings management of discretionary accruals.

The two measures of changes in accruals in Table 6 are negative in eleven of fourteen instances. The Year 1 and Year 2 changes are statistically negative for both accruals measures; however, the significance level in Year 2 for the means is marginal. These negative changes for accruals are consistent with the political costs theory prediction only if the assumption is made that the expected change is zero. This is a restrictive assumption and is not made in the expectations modeling used in tests of discretionary accruals.

Year 0 changes are negative but not statistically significant, and Year 3 changes are positive but not statistically significant. These change measures aid in ruling out the alternate explanation that the negative changes in Year 1 and Year 2 are simply part of a specific trend over time. Ruling out such a trend is important in a study of a single industry because industry characteristics and financial information are often similar across firms in the same industry.

4.2 Tests of Hypotheses Using Model 1

This section presents tests of hypotheses using accruals expectations Model 1. The regression model parameters are estimated using Years -3 through 0 and are applied to Year 1 and Year 2 data in order to calculate expected accruals for the prediction periods. The discretionary accruals are then calculated, and univariate analyses of the discretionary accruals are presented in Section 4.2.1 in order to test Hypothesis 1. Section 4.2.2 presents results of tests of Hypotheses 2 and 3.

4.2.1 Hypothesis 1

Table 7 presents the estimation period regression results for the following specification:

$$\frac{ACC_{i,t}}{TA_{i,t}} = \alpha\frac{1}{TA_{i,t}} + \beta_1\frac{PPE_{i,t}}{TA_{i,t}} + \beta_2\frac{IA_{i,t}}{TA_{i,t}} + \beta_3\frac{SUBS_{i,t}}{TA_{i,t}} + \epsilon_{i,t}$$

where: ACC= accruals,
        PPE= property, plant, and equipment,
        IA= intangible assets,
        SUBS= basic service subscribers,
        TA= total assets, i=firm, and t=year.

$$ACC_t = -Deprec_t -Amort_t + (CA_t - CA_{t-1}) - (CL_t - CL_{t-1})$$

where: ACC= accruals,
        deprec= depreciation expense,
        amort= amortization expense,
        CA= current assets, CL= current liabilities, and t=year.

Information in the table shows that the expectations model is well-specified and that the explanatory power is high. The F-statistic is significant at less than .0001 probability level, and adjusted R^2 is .81. The coefficient estimates for the intercept is positive although not statistically significant. The three main model parameters are negative. Property, plant, and equipment and intangible assets are statistically significant at less than .0002 probability level; the probability level for subscribers is .06. These results suggest that Model 1 is a good one for measuring the nondiscretionary component of total accruals in the prediction periods.

<div align="center">

TABLE 7
MODEL 1 ACCRUALS EXPECTATIONS MODEL

</div>

	INTERCEPT	PPE	IA	SUBS
parameter	16,566	-.080036	-.055437	-6.393837
std. error	71,703	.0095	.0143	4.046
t: param=0	.23	-8.454	-3.871	-1.580
p-value	.82	.0001	.0002	.12

n=97
F-statistic (significance level)= 106.0 (.0001)
Adjusted R^2= .81

Table 8 presents the discretionary accruals measures and provides statistical analysis of the measures. Measures are included for the two prediction period years as well as for Year 3. The data show that mean discretionary accruals for Years 1 and 2 are negative with the levels of

statistical significance .07 and .06, respectively. The medians are also negative with the number of positive discretionary accruals equal to ten in each year. The Wilcoxon signed-rank test is statistically significant but only at probability level .11 for each year. These results are considered generally to be consistent with Hypothesis 1.

TABLE 8
MODEL 1 DISCRETIONARY ACCRUALS

	Year 1 n=24	Year 2 n=23	Year 3 n=22
mean std. dev. t statistic p-value[1]	-.00949 .030 -1.57 .07	-.0097 .029 -1.62 .06	-.00357 .043 -.38 .71
median #pos/#neg sign-rank sum (sig. level)[1]	-.00113 10/14 -43 (.11)	-.00772 10/13 -41 (.11)	.004336 13/9 -4.5 (.89)

[1] one-sided tests in Year 1 and Year 2; two-sided tests in Year 3

Year 3 data are presented primarily for descriptive purposes. Discretionary accruals are negative but not statistically significant. Although there is an increase compared to the prediction years in the percent of total firms that have positive discretionary accruals, the Wilcoxon signed-rank test is not statistically significant. This is not consistent with a reversal of discretionary accruals. However, no specific prediction is made regarding the Year 3 measures.

4.2.2 Hypotheses 2 and 3

Tables 9 through 14 present the results of tests of Hypothesis 2 and Hypothesis 3. Sample firms are identified as belonging to groups with relatively weaker or stronger earnings management incentives, and tests of discretionary accruals are done based on the distinctions between groups. The hypotheses are also tested using a correlation. Yearly as well as pooled tests are presented. The pooled data provide larger size groups and more powerful statistical tests, but the lack of independence of the pooled observations also overstates t-statistics. T-tests are reported based on equal variances.

Table 9 presents results of the Hypothesis 2 test that compares groups. Group membership is assigned based on the degree of firm diversification. Hypothesis 2 is that discretionary accruals are more negative for the operators-only group. This test is particularly relevant because the results in Section 4.2.1 are considered generally to be consistent with Hypothesis 1. Results in Table 9 are consistent with Hypothesis 2 for each year and for the pooled data with the level of statistical significance less than .05 for the t-tests as well as the nonparametric Wilcoxon rank sum test.

TABLE 9
MODEL 1 COMPARISONS OF DISCRETIONARY ACCRUALS
OPERATORS VERSUS DIVERSIFIED FIRMS

	Year 1[1]	Year 2[1]	Pooled[1]
Operators Only Mean[1] Standard deviation Median	-.024** .034 -.031##	-.029*** .031 -.030###	-.026*** .031 -.031###
Diversified Firms Mean Standard deviation Median	.003 .019 .001	.005 .016 .010	.004 .017 .006

*, **, *** one-sided t-statistic for difference in means statistically significant at probability level .10, .05, .01

#, ##, ### ond-sided Wilcoxon rank sum test for operator median less than diversified median statistically significant at probability level .10, .05, .01

[1] Operators: n=11 for Year 1; n=10 for Year 2; n=21 for Pooled
   Diversified: n=13 for Year 1; n=13 for Year 2; n=26 for Pooled

Table 10 presents calculations of discretionary accruals for the operators-only group. Consistent with Hypothesis 2, the discretionary accruals are negative. The means and medians are more negative than for the full sample, and the levels of statistical significance are higher. This is also consistent with the full sample negative discretionary accruals and Table 9 results that show the mean discretionary accruals are more negative for the operator-only group than for the diversified group.

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TABLE 10
MODEL 1 DISCRETIONARY ACCRUALS
OPERATORS ONLY

	Year 1 n=11	Year 2 n=10	Year 3 n=10
mean std. dev. t statistic p-value[1]	-.0242 .034 -2.39 .02	-.02874 .031 -2.95 .01	-.0236 .039 -1.92 .09
median #pos/#neg sign-rank sum (sig. level)[1]	-.03059 3/8 -25 (.01)	-.02985 2/8 -22.5 (.01)	.02114 4/6 -14.5 (.16)

[1] one-sided tests in Years 1 and 2; two-sided tests in Year 3

The final test of Hypothesis 2 is the correlation test between discretionary accruals and the percent measure of the portion of total revenue derived from the cable television operations. Table 11 reports the correlations; the yearly measures and the pooled measure are statistically negative. This result is consistent with the prediction based on Hypothesis 2.

TABLE 11
MODEL 1 CORRELATION TESTS
OF DISCRETIONARY ACCRUALS AND DEGREE OF CABLE OPERATIONS

	Year 1 n=24	Year 2 n=23	Pooled n=47
Correlation significance level[1]	-.43 .04	-.56 .005	-.49 .0004

[1] one-sided tests

Table 12 presents results of tests of Hypothesis 3 that compare groups. Groups are assigned for purposes of this test based whether the basic service price charged is above or below the full-sample median price. As stated above, the comparison test is particularly relevant because the full sample discretionary accruals are considered to be negative. Data in Table 12 show that discretionary accruals are more negative for the high-price group; however, for the individual year tests only the Year 1 test of the mean is statistically significant.

TABLE 12
MODEL 1 COMPARISONS OF DISCRETIONARY ACCRUALS
HIGH-PRICE FIRMS VERSUS LOW-PRICE FIRMS

	Year 1[1]	Year 2[1]	Pooled[1]
High-price group			
Mean	-.017*	-.018	-.017**
Standard deviation	.032	.032	.031
Median	-.015	-.010	-.012##
Low-price group			
Mean	-.0007	-.003	-.002
Standard deviation	.027	.025	.025
Median	.0005	.003	.0005

*, **, *** one-sided t-statistic for difference in means
statistically significant at probability level .10, .05, .01

#, ##, ### one-sided Wilcoxon rank sum test for high-price group
median less than low-price group median statistically significant
at probability level .10, .05, .01

[1] High-price: n=11 for Year 1; n=11 for Year 2; n=22 for Pooled
Low-price: n=12 for Year 1; n=12 for Year 2; n=24 for Pooled

Table 13 presents calculations of discretionary accruals for the

high-price group only. The mean discretionary accruals are

statistically negative at probability level .05 for both Years 1 and 2.

The medians are also negative with the statistical significance of the

Wilcoxon sign-rank tests .08 in Year 1 and .07 in Year 2.

TABLE 13
MODEL 1 DISCRETIONARY ACCRUALS
HIGH-PRICE FIRMS ONLY

	Year 1 n=11	Year 2 n=11	Year 3 n=11
mean	-.01716	-.01751	-.00564
std. dev.	.032	.032	.053
t statistic[1]	-1.79	-1.82	-.35
p-value	.05	.05	.73
median	-.01486	-.00999	-.00605
#pos/#neg	4/7	4/7	5/6
sign-rank sum (sig. level)[1]	-17 (.08)	-17 (.07)	-8 (.52)

[1] one-sided tests in Years 1 and 2; two-sided tests in Year 3

The final test of Hypothesis 3 is to compute a correlation between

discretionary accruals and basic service prices with the hypothesis that

the correlation is negative. Results presented in Table 14 show that

the correlations are negative for the individual years as well as for

the pooled test; the Year 2 and pooled amounts are marginally

significant, but the Year 1 amount is not statistically significant.

TABLE 14
MODEL 1 CORRELATION TESTS OF DISCRETIONARY ACCRUALS AND PRICES

	Year 1 n=23	Year 2 n=23	Pooled n=46
Correlation significance level[1]	-.15 .50	-.37 .09	-.26 .08

[1] one-sided tests

The results based on the Hypothesis 3 tests are considered to be

generally consistent with the hypothesis because the signs are

consistent with the predicted signs. However, the levels of statistical

significance tend to be marginal. This may be due in part to the small

sample sizes reducing the power of tests.

4.3 Tests of Hypotheses Using Model 2

This section presents tests of hypotheses using accruals

expectations Model 2. The approach and tests are the same as described

in Section 4.2. Hypothesis 1 test results are presented in Section

4.3.1, and test results of Hypotheses 2 and 3 are presented in Section

4.3.2.

4.3.1 Hypothesis 1

Table 15 presents the estimation period regression results for the

following specification:

$$\frac{ACC_{i,t}}{TA_{i,t}} = \alpha \frac{1}{TA_{i,t}} + \beta_1 \frac{PPE_{i,t}}{TA_{i,t}} + \beta_2 \frac{IA_{i,t}}{TA_{i,t}} + \beta_3 \frac{SUBS_{i,t}}{TA_{i,t}} + \beta_4 PRETAX_{i,t} + \epsilon_{i,t}$$

where: ACC= accruals,
          PPE= property, plant, and equipment,
          IA= intangible assets,
          SUBS= basic service subscribers,
          PRETAX= 1 if pretax net income positive; otherwise=0,
          TA= total assets, i=firm, and t=year.

$$ACC_t = -Deprec_t - Amort_t - Deftax_t * \frac{.34}{mtr_t} + (CA_t - CA_{t-1}) - (CL_t - CL_{t-1})$$

where: ACC= accruals,
deprec= depreciation expense,
amort= amortization expense,
CA= current assets,
CL= current liabilities,
deftax= deferred tax expense (benefit),
mtr= marginal statutory tax rate, and t=year.

Model 2 is well-specified. The F-statistic is significant at alpha less than .0001, and adjusted R^2 is .86. All parameters are negative and statistically significant, although only at the .09 probability level for subscribers and .08 probability level for the dummy variable that represents the pretax income position. These results suggest that the model is a good one for measuring the nondiscretionary component of total accruals in the prediction periods.

<div align="center">

TABLE 15
MODEL 2 ACCRUALS EXPECTATIONS MODEL

</div>

	INTERCEPT	PPE	IA	SUBS	PRETAX
parameter	-246,801	-.089125	-.061953	-6.566127	.017830
std. error	67,890	.0090	.0140	3.880	.0102
t: param=0	-3.635	-9.953	-4.419	-1.692	1.747
p-value	.0005	.0001	.0001	.09	.08

n=97
F-statistic (significance level) = 118.6 (.0001)
Adjusted R^2 = .86

Table 16 shows that the discretionary accruals for Years 1 and 2 are negative but not statistically significant. The number of discretionary accruals measures that are positive and negative are nearly identical; the Wilcoxon signed-rank test results are not significant, consistent with those numbers. These results are not consistent with Hypothesis 1.

Year 3 discretionary accruals, calculated primarily for descriptive purposes, are positive but not statistically significant. Although there is an increase compared to the prediction years in the

percent of total firms that have positive discretionary accruals, the Wilcoxon signed-rank test is not statistically positive.

TABLE 16
MODEL 2 DISCRETIONARY ACCRUALS

	Year 1 n=24	Year 2 n=23	Year 3 n=22
mean	-.00528	-.00654	.003794
std. dev.	.029	.028	.043
t statistic	-.88	-1.11	.41
p-value[1]	.19	.14	.69
median	-.00231	-.00225	.008277
#pos/#neg	11/13	11/12	12/10
sign-rank sum (sig. level)[1]	-27 (.23)	-31 (.18)	.5 (.99)

[1] one-sided tests in Years 1 and 2; two-sided tests in Year 3

4.3.2 Hypotheses 2 and 3

Tables 17 through 22 present Hypothesis 2 and Hypothesis 3 test results. Table 17 presents the comparison tests and shows that mean and median discretionary accruals for the operators-only group are statistically more negative than for the diversified group for both Years 1 and 2 and for the pooled test, consistent with Hypothesis 2.

TABLE 17
MODEL 2 COMPARISONS OF DISCRETIONARY ACCRUALS
OPERATORS VERSUS DIVERSIFIED FIRMS

	Year 1[1]	Year 2[1]	Pooled[1]
Operators Only			
Mean	-.017**	-.022***	-.019***
Standard deviation	.031	.032	.031
Median	-.020##	-.016##	-.019###
Diversified Firms			
Mean	.005	.005	.005
Standard deviation	.024	.019	.021
Median	.009	.008	.009

*, **, *** one-sided t-statistic for difference in means statistically significant at probability level .10, .05, .01

#, ##, ### one-sided Wilcoxon rank sum test for operator median less than diversified median statistically significant at probability level .10, .05, .01

[1] Operators: n=11 for Year 1; n=10 for Year 2; n=21 for Pooled
Diversified: n=13 for Year 1; n=13 for Year 2; n=26 for Pooled

The Table 18 calculations of mean and median discretionary accruals for the operators-only group are particularly relevant tests because data are not consistent with Hypothesis 1. The results in Table 18 show that the amounts are statistically negative in Year 1 and Year 2, although the probability level for the Year 1 nonparametric test is only .09. These data are considered to be consistent with Hypothesis 2.

TABLE 18
MODEL 2 DISCRETIONARY ACCRUALS
OPERATORS ONLY

	Year 1 n=11	Year 2 n=10	Year 3 n=10
mean std. dev. t statistic p-value[1]	-.01724 .031 -1.84 .05	-.02193 .032 -2.17 .03	-.011 .036 -.95 .37
median #pos/#neg sign-rank sum (sig. level)[1]	-.02901 3/8 -16 (.09)	-.01592 2/8 -19.5 (.02)	-.01353 4/6 -10.5 (.32)

[1] one-sided tests in Years 1 and 2; two-sided tests in Year 3

The correlation tests of Hypothesis 2 are presented in Table 19. The three correlations of discretionary accruals and the percent measure of the portion of total revenue derived from the cable television operations are negative and statistically significant. The correlations are consistent with Hypothesis 2.

TABLE 19
MODEL 2 CORRELATION TESTS OF
DISCRETIONARY ACCRUALS AND DEGREE OF CABLE OPERATIONS

	Year 1 n=24	Year 2 n=23	Pooled n=47
Correlation significance level[1]	-.40 .05	-.48 .02	-.43 .002

[1] one-sided tests

Table 20 presents the comparison tests of Hypothesis 3. Mean discretionary accruals for the high-price group are more negative than for the low-price group for Year 1, Year 2, and the pooled data.

However, the Year 1 difference is not statistically significant, and the statistical significance for Year 2 is marginal. The nonparametric test results show higher levels of statistical significance than the mean tests for the three comparisons.

TABLE 20
MODEL 2 COMPARISONS OF DISCRETIONARY ACCRUALS
HIGH-PRICE FIRMS VERSUS LOW-PRICE FIRMS

	Year 1[1]	Year 2[1]	Pooled[1]
High-price group			
Mean	-.011	-.015*	-.012**
Standard deviation	.033	.032	.031
Median	-.017#	-.014##	-.015###
Low-price group			
Mean	.0003	.002	.0008
Standard deviation	.024	.022	.023
Median	.005	.0004	.0009

*, **, *** one-sided t-statistic for difference in means statistically significant at probability level .10, .05, .01

#, ##, ### one-sided Wilcoxon rank sum test for high-price group median less than low-price group median statistically significant at probability level .10, .05, .01

[1] High-price: n=11 for Year 1; n=11 for Year 2; n=22 for Pooled
Low-price: n=12 for Year 1; n=12 for Year 2; n=24 for Pooled

Table 21 presents the mean and median discretionary accruals for the high-price group of firms. As stated above, this test is particularly relevant as full-sample data are not considered to be consistent with Hypothesis 1. The Year 1 and Year 2 amounts are negative for all four measures; however, the statistical significance is marginal in all four cases.

The Hypothesis 3 correlation test results are presented in Table 22. The correlations are negative, with the Year 2 and pooled amounts statistically significant.

TABLE 21
MODEL 2 DISCRETIONARY ACCRUALS
HIGH-PRICE GROUP ONLY

	Year 1 n=11	Year 2 n=11	Year 3 n=11
mean std. dev. t statistic p-value[1]	-.01444 .032 -1.48 .09	-.01581 .033 -1.61 .07	.001734 .054 .11 .92
median #pos/#neg sign-rank sum (sig. level)[1]	-.01657 4/7 -15 (.10)	-.01413 4/7 -17 (.08)	-.00373 5/6 -7 (.58)

[1] one-sided tests in Years 1 and 2; two-sided tests in Year 3

TABLE 22
MODEL 2 CORRELATION TESTS OF DISCRETIONARY ACCRUALS AND PRICES

	Year 1 n=23	Year 2 n=23	Pooled n=46
Correlation significance level[1]	-.24 .28	-.45 .03	-.34 .02

[1] one-sided tests

The results of the Hypothesis 3 tests are considered to be generally consistent with the hypothesis because the signs are as predicted; however, the statistical significance of the Year 1 results is much weaker than the Year 2 results.

4.4 Tests Incorporating Potential Confounding Factors

Analysis in this section presents tests to determine whether firm performance or firm size potentially confound reported test results. Descriptive data are provided by calculating correlations between two changes in accruals measures as well as discretionary accruals and various accounting measures of firm performance and firm size. The discretionary accruals correlations provide the most direct information regarding potential bias in hypothesis testing. The correlations are

presented in Section 4.4.1. Multivariate analysis of discretionary
accruals is presented in Section 4.4.2.

4.4.1 <u>Descriptive Statistics</u>

Two sets of data are used to compute correlations using changes in
accruals. The first set contains the prediction periods only, Years 1
and 2, and the second set is for all years in the study. These
correlations are for descriptive purposes and do not necessarily
indicate that there is bias in the discretionary accruals measure. This
is because it is possible that the expectations model for accruals
captures these relations. Correlations using discretionary accruals are
presented following the changes in accruals data.

Table 23 reports correlations between the scaled changes in
accruals measures and four firm performance measures. Correlations
between the changes in accruals and scaled changes in revenue are
negative but statistically significant only in the larger set.
Correlations using scaled changes in cash flows are statistically
negative for both groups. The sign of these correlations is the
opposite of that which would raise the issue of confounding firm
performance explaining negative discretionary accruals. However, the
signs are consistent with the measures of discretionary accruals in this
study possibly being biased against detecting earnings management.

The scaled change in net income and the binary classification
measure are positively correlated with the two accruals measures. The
correlations are statistically significant except for the smaller set
binary measure. Correlations with these two measures are considered
less relevant than the revenue and cash flow measures for assessing the
effect of firm performance because the two measures include accruals.

Based on the correlations, it appears that there is not a general
trend in changes in accruals due to firm performance that is likely to
bias measures of discretionary accruals in the predicted direction of
earnings management. This conclusion is also consistent with
descriptive data in Chapter 3 and univariate tests in Section 4.1.

TABLE 23
CORRELATIONS BETWEEN SCALED CHANGES IN ACCRUALS AND FIRM PERFORMANCE

PANEL A: YEARS 1 AND 2 (n=47)

	Scaled change in revenue	Scaled change in cash flows	Scaled change in net income	Performance dummy[2]
Model 1 Correlation Signif. level[1]	-.10 (.50)	-.45 (.001)	.33 (.02)	.05 (.73)
Model 2 Correlation Signif. level[1]	-.12 (.42)	-.44 (.002)	.37 (.01)	.07 (.63)

[1] two-sided tests

[2] Dummy= 1 if positive net income; otherwise dummy= 0; sum= 20

PANEL B: YEARS -3 to 3

	Scaled change in revenue n=160	Scaled change in cash flows n=122	Scaled change in net income n=160	Performance dummy[2] n=160
Model 1 Correlation Signif. level[1]	-.27 (.001)	-.45 (.0001)	.21 (.01)	.18 (.02)
Model 2 Correlation Signif. level[1]	-.33 (.0001)	-.53 (.0001)	.19 (.02)	.16 (.03)

[1] two-sided tests

[2] Dummy= 1 if positive net income; otherwise dummy= 0; sum= 20

Industry firms are growing throughout the time period of the study with changes in revenues statistically positive every year. Patterns of growth are not characteristic of firms that are performing poorly. This conclusion is an important distinction from previous studies in which correlated firm performance could not be ruled out as an alternate explanation for income-decreasing discretionary accruals (e.g., Jones, 1991).

Table 24 presents correlations between the two change in accruals measures and two firm size measures, total revenue and total assets.

TABLE 24
CORRELATIONS BETWEEN SCALED CHANGES IN ACCRUALS AND FIRM SIZE

	YEARS 1 AND 2 (n=47)		YEARS -3 TO 3 (n=160)	
	Total revenue	Total assets	Total revenue	Total assets
Model 1 Correlation Signif. level[1]	.14 .35	.05 .73	.09 .25	.05 .56
Model 2 Correlation Signif. level[1]	.15 .32	.07 .66	.09 .25	.04 .59

[1] two-sided tests

The correlations are all positive with none statistically significant. These results do not suggest that the firm size proxy for political exposure confounds interpretations in this study because the correlations are not statistically negative. This is an important distinction from previous research (e.g. Cahan, 1992). The fact that the correlations are not statistically different from zero suggests that other, unspecified firm size aspects do not cause general trends in changes in accruals.

Table 25 provides correlations using discretionary accruals and firm performance. The correlations between discretionary accruals measures and firm performance measures are not statistically significant for the two performance measures, scaled changes in revenue and scaled changes in cash flows. These correlations are different from the

correlations using changes in accruals, and therefore, demonstrate that the correlations using the changes do not necessarily indicate that discretionary accruals are biased. The correlations with changes in net income and the binary measure are positive and statistically significant. However, the fact that the direction of causation is unclear means the appropriateness of using either of these measures in the multivariate test is questionable.

TABLE 25
CORRELATIONS BETWEEN DISCRETIONARY ACCRUALS
AND FIRM PERFORMANCE MEASURES

	Scaled change in revenue	Scaled change in cash flows	Scaled change in net income	Perform-ance dummy[2]
Model 1 (n=47) Correlation Signif. level[1]	.02 .88	.05 .75	.32 .03	.56 .0001
Model 2 (n=47) Correlation Signif. level[1]	.02 .89	-.01 .96	.35 .02	.53 .0001

[1] two-sided tests

[2] Dummy= 1 if positive net income; otherwise dummy= 0; sum= 20

Firm size and discretionary accruals correlations are presented in Table 26. The correlations are positive, although the correlation is not statistically significant for the correlation between Model 2 discretionary accruals and total assets.

TABLE 26
CORRELATIONS BETWEEN DISCRETIONARY ACCRUALS
AND FIRM SIZE MEASURES

	Total revenue	Total assets
Model 1 (n=47) Correlation Signif. level[1]	.42 .003	.29 .05
Model 2 (n=47) Correlation Signif. level[1]	.31 .03	.15 .31

[1] two-sided tests

The correlations are consistent with the discretionary accruals potentially being biased against detecting earnings management, and the positive correlation is the opposite of the sign that is predicted based on the firm size proxy for political costs. The multivariate test provides a powerful test because it controls for apparent size-related positive attributes of discretionary accruals.

4.4.2 Multivariate Tests of Discretionary Accruals

A multivariate regression is specified that includes a measure for both Hypothesis 2 and Hypothesis 3. Control variables are also included. Firm performance and firm size are potential confounds in previous research, so this multivariate approach provides a test of the robustness of test results. The multivariate specification is as follows:

$$DA_{i,t} = REVPERCT_{i,t} + BASICPR_{i,t-1} + CHREV_{i,t} + LNASSETS_{i,t} + \epsilon_{i,t}$$

where: DA=discretionary accrual,
REVPERCT= percent of firm revenues derived from cable operations,
BASICPR=mean basic cable television service price,
CHREV=change in revenue scaled by total assets,
LNASSETS=natural log of total assets,
i=firm, and t=year.

Table 27 presents Model 1 results in Panel A, and Model 2 results in Panel B. Results are reported for Year 1, Year 2, and the two years pooled. As is the case with the comparison tests between groups, pooling the data overstates the t-statistics because observations are not independent.

Conclusions based on Panel A regression results are that discretionary accruals are negatively related to REVPERCT, consistent with Hypothesis 2, and to BASICPR, consistent with Hypothesis 3. The BASICPR result is somewhat weak statistically, however. The calculation of the model for Year 1 has lower explanatory power overall, and only one of the estimated parameters is statistically different from zero.

TABLE 27
MULTIVARIATE SPECIFICATIONS

PANEL A: MODEL 1

Indep variable: Predicted sign:	Intercept	REVPERCT (-)	BASICPR (-)	CHREV	LNTOASS

Pooled (n=46)
  parameter
  std. error
  t-statistic[1]
	-.088
	.067
	-1.32
		-.030
		.010
		-2.94***
			-.002
			.001
			-1.50*
				.124
				.073
				1.70*
					.006
					.003
					2.25**

Year 1 (n=23)
  parameter
  std. error
  t-statistic[1]
	-.072
	.109
	-.67
		-.027
		.016
		-1.63*
			-.002
			.003
			-.66
				.096
				.096
				1.00
					.005
					.004
					1.14

Year 2 (n=23)
  parameter
  std. error
  t-statistic[1]
	-.122
	.093
	-1.32
		-.035
		.014
		-2.58***
			-.002
			.002
			-1.33*
				.256
				.154
				1.66
					.008
					.004
					2.15**

[1] one-sided tests for REVPERCT and BASICPR; otherwise two-sided

*, **, *** statistically significant at probability level .10, .05, .01
Adjusted R^2: Year 1=.12; Year 2=.43; Pooled=.32
F-stat. (sig. level): Year 1= 1.7 (.19); Year 2= 5.17 (.006);
  Pooled=6.4 (.0004)

PANEL B: MODEL 2

Indep variable: Predicted sign:	Intercept	REVPERCT (-)	BASICPR (-)	CHREV	LNTOASS

Pooled (n=46)
  parameter
  std. error
  t-statistic[1]
	.021
	.070
	.30
		-.029
		.011
		-2.76***
			-.003
			.001
			-2.18**
				.099
				.077
				1.30
					.002
					.003
					.75

Year 1 (n=23)
  parameter
  std. error
  t-statistic[1]
	.028
	.112
	.25
		-.028
		.017
		-1.66*
			-.003
			.003
			-1.03
				.069
				.099
				.70
					.002
					.005
					.32

Year 2 (n=23)
  parameter
  std. error
  t-statistic[1]
	-.002
	.100
	-.02
		-.033
		.014
		-2.22**
			-.004
			.002
			-1.90**
				.234
				.167
				1.40
					.004
					.004
					.89

[1] one-sided tests for REVPERCT and BASICPR; otherwise two-sided

*, **, *** statistically significant at probability level .10, .05, .01
Adjusted R^2: Year 1=.05; Year 2=.31; Pooled=.24
F-stat. (sig. level): Year 1= 1.3 (.32); Year 2= 3.5 (.03);
  Pooled= 4.5 (.004)

Consistent with the simple correlation tests between size and discretionary accruals, LNTOASS is positive and statistically significant in Year 2 and in the pooled test. Based on these multivariate tests the conclusion is made that Model 1 Hypothesis 2 and Hypothesis 3 test results are robust with respect to potential confounds of firm performance and firm size.

Interpretation of Model 2 results presented in Panel B are essentially the same as for Model 1. The REVPERCT coefficients are negative and statistically significant in each model, and the BASICPR coefficients are statistically negative for Year 2 and the pooled models. The explanatory powers of each model vary in the same manner as Model 1, the Year 1 adjusted R^2 is much lower than the adjusted R^2 for Year 2 and for the pooled data. Unlike Model 1, the parameter estimate for the size measure, LNTOASS, is not statistically significant. The results of Model 2 tests of Hypotheses 2 and 3 are considered to be robust with respect to firm performance and firm size.

4.5 Overall Summary of Results

Figure 1 summarizes the results of tests of the three hypotheses for both Model 1 and Model 2.

Hypothesis 1 test results are different for the two models. Model 1 discretionary accruals are negative in the prediction periods, but the Model 2 amounts are not. The explanatory powers of the models are similar in the estimation period, but it may be the case that the deferred tax portion of expected accruals is not easily estimated from year to year. This possibility is suggested by the marginal statistical significance of the pretax position dummy variable in Model 2 (Table 15). These inconsistent results between the two models make the tests of Hypotheses 2 and 3 especially important.

	Model 1	Model 2

Hypothesis 1
  Year 1
  Year 2
	
	consistent*
	consistent*
		
		not consistent
		not consistent

Hypothesis 2 comparison test
  Year 1
  Year 2
  Pooled
	
	consistent**
	consistent**
	consistent**
		
		consistent**
		consistent**
		consistent**

Hypothesis 2 DA for subgroup
  Year 1
  Year 2
	
	consistent**
	consistent**
		
		consistent**
		consistent**

Hypothesis 2 correlation test
  Year 1
  Year 2
  Pooled
	
	consistent**
	consistent**
	consistent**
		
		consistent**
		consistent**
		consistent**

Hypothesis 2 multivariate
  Year 1
  Year 2
  Pooled
	
	consistent*
	consistent**
	consistent**
		
		consistent*
		consistent**
		consistent**

Hypothesis 3 comparison test
  Year 1
  Year 2
  Pooled
	
	consistent*
	not consistent
	consistent**
		
		not consistent
		consistent*
		consistent**

Hypothesis 3 DA for subgroup
  Year 1
  Year 2
	
	consistent**
	consistent**
		
		consistent*
		consistent*

Hypothesis 3 correlation test
  Year 1
  Year 2
  Pooled
	
	not consistent
	consistent*
	consistent*
		
		not consistent
		consistent**
		consistent**

Hypothesis 3 multivariate
  Year 1
  Year 2
  Pooled
	
	not consistent
	consistent*
	consistent*
		
		not consistent
		consistent**
		consistent**

*, ** t-test probability level less than .10, .05

FIGURE 1
SUMMARY OF MODEL 1 AND MODEL 2 HYPOTHESIS TESTS

Hypothesis 2 tests distinguish firms based on the importance of the cable television operations, and data from both models are consistent with the prediction that the operators-only subgroup have negative discretionary accruals and that these discretionary accruals are more negative than those of the diversified group. Based on the multivariate tests the result is robust across alternate test specifications that assess potential confounding variables.

The conclusions depend on the assumption that the revenue percent measure is a good proxy for the importance of the cable television operations. Sensitivity analysis is done that specifies an alternate expectations model using the cable television operations revenue percent as a predictor variable. The analysis aids in determining if the Hypothesis 2 results are due to underlying, systematic differences in accruals for the cable television segment that are independent of the importance of the segment to the firm.

Hypothesis 3 distinguishes firms based on the importance of the proposed regulations to the firms. Data are interpreted as generally consistent with the prediction that discretionary accruals are negative for the high-price firms and more negative than for the low-price firms. The test results are not consistent across all specifications of Hypothesis 3, and significance levels are marginal in many cases. The result is fairly robust based on the multivariate test.

The lack of a reversal of discretionary accruals in Year 3 tests may be due to the continuing political pressure on the cable television industry; the firms continued to have the same incentives as in Years 1 and 2. Only two years are identified as belonging to the prediction period because it is more likely that earnings management is not detected in later periods because the accruals measures are not independent. The fact that the discretionary accruals are not negative in Year 3 aids in ruling out the possibility that the Year 1 and Year 2 amounts are simply part of a pattern over time.

4.6 Additional Tests

This section presents the results of sensitivity analysis. The presentation of the information corresponds to the Section 3.9 discussion of the tests and is in the same order. Section 4.6.1 presents results using the alternate expectations model specification. Section 4.6.2 discusses the years included in the expectations model estimation period. Tests of tax-motivated behavior are presented in Section 4.6.3, and Section 4.6.4 presents results of tests that assess the effects of various sample firms on full-sample test results.

4.6.1 <u>Alternate Expectations Model</u>

The alternate expectations model specified in Section 3.9.1 includes the independent variable, percent of total revenue derived from cable television operations, and excludes subscriber data. Regression equations for Model 1 and Model 2 are reestimated with this change, and the reestimated results are referred to as Models 3 and 4, respectively. Discretionary accruals are also recalculated in order to test Hypothesis 1. Appropriate tests of Hypotheses 2 and 3 are done depending on the outcome of Hypothesis 1 testing.

Table 28 presents the Model 3 regression results, specified as follows:

$$\frac{ACC_{i,t}}{TA_{i,t}} = \alpha \; \frac{1}{TA_{i,t}} + \beta_1 \frac{PPE_{i,t}}{TA_{i,t}} + \beta_2 \frac{IA_{i,t}}{TA_{i,t}} + \beta_3 \; \frac{REVPCT_{i,t}}{TA_{i,t}} + \epsilon_{i,t}$$

where: ACC=accruals,
PPE= property, plant, and equipment,
IA=intangible assets,
REVPCT=percent of revenue derived from cable operations,
TA=total assets, i=firm, and t=year.

$$ACC_t = -Deprec_t \; -Amort_t + (CA_t - CA_{t-1}) \; -(CL_t - CL_{t-1})$$

where: ACC=accruals,
deprec= depreciation expense,
amort= amortization expense,
CA= current assets, CL= current liabilities, and t=year.

Model 3 is well-specified. The property, plant, and equipment and intangible asset coefficient estimates continue to be statistically

negative. The independent variable of primary interest is the revenue
percent measure, REVPERCT. The coefficient estimate is negative and
statistically significant at probability level .005. This indicates
that the cable television operations tend to have greater negative
accruals than the diversified segments of the firms.

TABLE 28
MODEL 3 ACCRUALS EXPECTATIONS MODEL

	INTERCEPT	PPE	IA	REVPERCT
parameter	84,181	-.074961	-.035551	-.026971
std. error	75,018	.0088	.0158	.0093
t: param=0	1.12	-8.482	-2.243	-2.903
p-value	.27	.0001	.03	.005

n=97
F-statistic (significance level) = 114.0 (.0001)
Adjusted R^2 = .86

Model 3 discretionary accruals are presented in Table 29.
Discretionary accruals are statistically negative for Year 1 and Year 2,
although the Year 1 nonparametric test probability level is .08. These
results are consistent with Hypothesis 1 and also very similar to Model
1 results with the statistical significance levels slightly higher for
Model 3.

TABLE 29
MODEL 3 DISCRETIONARY ACCRUALS

	Year 1 n=24	Year 2 n=23	Year 3 n=22
mean	-.0093	-.01098	-.00594
std. dev.	.028	.026	.042
t statistic	-1.65	-2.06	-.66
p-value[1]	.07	.03	.52
median	-.00778	-.005807	.003037
#pos/#neg	10/14	9/14	12/10
sign-rank sum			
(sig. level)[1]	-50 (.08)	-55(.05)	-17.5(.58)

[1] one-sided tests in Years 1 and 2; two-sided tests in Year 3

Because the discretionary accruals for the full sample are
considered to be negative, the most relevant test of Hypothesis 2 is to
assess whether the discretionary accruals for the operators-only group

are more negative than for the diversified group. Results of this comparison test are presented in Table 30. Consistent with Model 1 and with Hypothesis 2, operator discretionary accruals are more negative for Year 1, Year 2, and the pooled data.

TABLE 30
MODEL 3 COMPARISONS OF DISCRETIONARY ACCRUALS
OPERATORS VERSUS DIVERSIFIED FIRMS

	Year 1[1]	Year 2[1]	Pooled[1]
Operators Only			
Mean	-.019*	-.026***	-.022***
Standard deviation	.034	.030	.031
Median	-.021##	-.027##	-.022###
Diversified Firms			
Mean	-.002	.0006	-.0001
Standard deviation	.018	.014	.016
Median	.0009	.002	.001

*, **, *** one-sided t-statistic for difference in means statistically significant at probability level .10, .05, .01

#, ##, ### one-sided Wilcoxon rank sum test for operator median less than diversified median statistically significant at probability level .10, .05, .01

[1] Operators: n=11 for Year 1; n=10 for Year 2; n=21 for Pooled
   Diversified: n=13 for Year 1; n=13 for Year 2; n=26 for Pooled

The Hypothesis 3 comparison test results are presented in Table 31. Mean and median discretionary accruals for the high-price firms are more negative than for low-price firms. However, the Year 1 and Year 2 results are not statistically significant. These results are also very similar to Model 1 results.

TABLE 31
MODEL 3 COMPARISONS OF DISCRETIONARY ACCRUALS
HIGH-PRICE FIRMS VERSUS LOW-PRICE FIRMS

	Year 1[1]	Year 2[1]	Pooled[1]
High-price group			
Mean	-.016	-.018	-.017**
Standard deviation	.032	.030	.030
Median	-.008	-.006	-.007#
Low-price group			
Mean	-.003	-.005	-.004
Standard deviation	.023	.020	.021
Median	-.002	-.005	-.004

*, **, *** one-sided t-statistic for difference in means
statistically significant at probability level .10, .05, .01

#, ##, ### one-sided Wilcoxon rank sum test for high-price group
median less than low-price group median statistically significant
at probability level .10, .05, .01

[1] High-price: n=11 for Year 1; n=11 for Year 2; n=22 for Pooled
   Diversified: n=12 for Year 1; n=12 for Year 2; n=24 for Pooled

Model 4 regression results are presented in Table 32. Model 4 is
specified as follows:

$$\frac{ACC_{i,t}}{TA_{i,t}} = \alpha \frac{1}{TA_{i,t}} + \beta_1 \frac{PPE_{i,t}}{TA_{i,t}} + \beta_2 \frac{IA_{i,t}}{TA_{i,t}} + \beta_3 \frac{REVPCT_{i,t}}{TA_{i,t}} + \beta_4 PRETAX_{i,t} + \epsilon_{i,t}$$

where: ACC=accruals,
           PPE= property, plant, and equipment,
           IA= intangible assets,
           REVPCT= basic service subscribers,
           PRETAX=1 if pretax net income positive; otherwise=0,
           Assets=total assets, i=firm, and t=year.

$$ACC_t = -Deprec_t - Amort_t - Deftax_t * \frac{.34}{mtr_t} + (CA_t - CA_{t-1}) - (CL_t - CL_{t-1})$$

where: ACC=accruals,
           deprec= depreciation expense,
           amort= amortization expense,
           CA= current assets,
           CL=current liabilities,
           deftax = deferred tax expense (benefit),
           mtr = marginal statutory tax rate, and t=year.

Coefficient signs and levels of statistical significance are very
similar to the other three models. The variable of primary interest,
REVPERCT, is negative and statistically significant at probability level
.01.

TABLE 32
MODEL 4 ACCRUALS EXPECTATIONS MODEL

	INTERCEPT	PPE	IA	REVPERCT	PRETAX
parameter	-197,417	-.086562	-.046834	-.022665	.020509
std. error	71,664	.0085	.0153	.0091	.0101
t: param=0	-2.755	-10.205	-3.060	-2.485	2.022
p-value	.007	.0001	.003	.01	.05

F-statistic (significance level) = 123.3 (.0001)
Adjusted R^2 = .86

Table 33 presents the discretionary accruals calculations. Although the means and medians for Year 1 and Year 2 are negative, the measures are not statistically significant except that the Year 2 mean test is marginally so. Model 2 results are similar.

TABLE 33
MODEL 4 DISCRETIONARY ACCRUALS

	Year 1 n=24	Year 2 n=23	Year 3 n=22
mean std. dev. t statistic p-value[1]	-.00509 .027 -.91 .19	-.0077 .026 -1.40 .09	.002235 .0415 .25 .80
median #pos/#neg sign-rank sum (sig. level)[1]	-.00688 11/13 -29(.21)	-.00397 11/12 -30(.19)	.00444772 11/11 1.5(.96)

[1] one-sided tests in Years 1 and 2; two-sided tests in Year 3

The most relevant tests of Hypotheses 2 and 3 are to assess measures of discretionary accruals for the subgroups of firms with the strongest earnings management incentives. Hypothesis 2 test results are presented in Table 34. The operator-only discretionary accruals are negative with the Year 2 probability level .04 for the t-test of the mean but only .07 for the nonparametric test. The Year 1 probability level for the t-test is marginally significant, but the nonparametric test is not significant. The results are similar to Model 2.

TABLE 34
MODEL 4 DISCRETIONARY ACCRUALS
OPERATORS ONLY

	Year 1 n=11	Year 2 n=10	Year 3 n=10
mean std. dev. t statistic p-value[1]	-.01298 .032 -1.36 .10	-.0197 .032 -1.96 .04	-.01018 .035 -.92 .38
median #pos/#neg sign-rank sum (sig. level)[1]	-.01763 3/8 -13 (.14)	-.00994 3/7 -15.5 (.07)	-.01123 4/6 -8.5 (.43)

[1] one-sided tests in Years 1 and 2; two-sided tests in Year 3

Hypothesis 3 test results are presented in Table 35. The table shows that the discretionary accruals are negative with probability levels for the t-test of .10 in Year 1 and .06 in Year 2. The nonparametric test is marginally significant for Year 2 only. As is the case for Hypothesis 2, these results are similar to Model 2 results except that most Model 2 levels of statistical significance are higher.

TABLE 35
MODEL 4 DISCRETIONARY ACCRUALS
HIGH-PRICE FIRMS ONLY

	Year 1 n=11	Year 2 n=11	Year 3 n=11
mean std. dev. t statistic p-value[1]	-.01359 .032 -1.39 .10	-.01637 .031 -1.73 .06	.001361 .052 .09 .93
median #pos/#neg sign-rank sum (sig. level)[1]	-.01139 4/7 -14 (.12)	-.00877 4/7 -15 (.10)	-.00321 5/6 -4 (.76)

[1] one-sided tests in Years 1 and 2; two-sided tests in Year 3

Multivariate tests are presented in Table 36. Model 3 results show that the revenue percent and basic price coefficients are negative and statistically significant at probability level .10 for Year 2 and the pooled data. Model 4 results are similar with the significance levels higher, especially for the price variable.

The primary reason for tests using Models 3 and 4 that include the revenue percent measure is to determine if Model 1 and Model 2 results are robust to the alternate specification. This is especially important for Hypothesis 2 because the alternate explanation that the operator-only results are because of unique cable television operations characteristics appears to be ruled out.

Results of tests based on Models 3 and 4 are qualitatively the same as corresponding Models 1 and 2 that use subscriber data. Data are considered to be consistent with Hypothesis 1 for Model 3 but not Model 4. Model 3 and Model 4 data are consistent with Hypothesis 2. Results are considered generally to be consistent with Hypothesis 3. The signs

TABLE 36
MULTIVARIATE SPECIFICATIONS

PANEL A: MODEL 3

Indep variable: Predicted sign:	Intercept	REVPERCT (-)	BASICPR (-)	CHREV	LNTOASS

Pooled (n=46)
  parameter
  std. error
  t-statistic[1]
	-.109
	.067
	-1.66*
		-.014
		.010
		-1.38*
			-.002
			.001
			-1.58*
				.122
				.072
				1.70*
					.007
					.003
					2.49**

Year 1 (n=23)
  parameter
  std. error
  t-statistic[1]
	-.098
	.110
	-.90
		-.002
		.016
		-.60
			-.002
			.003
			-.53
				.090
				.097
				.93
					.006
					.005
					1.22

Year 2 (n=23)
  parameter
  std. error
  t-statistic[1]
	-.146
	.086
	-1.69
		-.020
		.013
		-1.61*
			-.003
			.002
			-1.56*
				.270
				.143
				1.88*
					.009
					.004
					2.53**

[1] one-sided tests for REVPERCT and BASICPR; otherwise two-sided

*, **, *** statistically significant at probability level .10, .05, .01

Adjusted R^2: Year 1= -.02; Year 2= .38; Pooled= .22
F-statistic (sig. level): Year 1= .87 (.50); Year 2= 4.4 (.01);
 Pooled= 4.1 (.007)

PANEL B: MODEL 4

Indep variable: Predicted sign:	Intercept	REVPERCT (-)	BASICPR (-)	CHREV	LNTOASS

Pooled (n=46)
  parameter
  std. error
  t-statistic[1]
	.019
	.069
	.28
		-.018
		.010
		-1.72**
			-.003
			.001
			-2.33***
				.097
				.076
				1.27
					.002
					.003
					.72

Year 1 (n=23)
  parameter
  std. error
  t-statistic[1]
	.023
	.112
	.21
		-.016
		.017
		-.96
			-.003
			.003
			-.99
				.063
				.099
				.63
					.001
					.005
					.28

Year 2 (n=23)
  parameter
  std. error
  t-statistic[1]
	-.007
	.098
	-.07
		-.022
		.014
		-1.57*
			-.004
			.002
			-2.10**
				.247
				.163
				1.52
					.004
					.004
					.92

[1] one-sided tests for REVPERCT and BASICPR; otherwise two-sided

*, **, *** statistically significant at probability level .10, .05, .01

Adjusted R^2: Year 1= -.07; Year 2= .25; Pooled= 15
F-statistic (sig. level): Year 1= .65 (.63); Year 2= 2.9 (.05);
 Pooled= 3.1 (.03)

of tests are negative, as predicted. In addition, the multivariate test results are consistent with predictions and statistically significant except for Year 1.

4.6.2 Estimation Period Years

This section reports on the sensitivity of test results to the estimation period years used to calculate the expectations models and discretionary accruals. The expectations models continue to be well-specified with adjusted R^2 measures increasing slightly for all four models. This is consistent with the increasing sample sizes for the alternate estimation periods.

Discretionary accruals recalculated for Years 2 and 3 using all four models show that the results are qualitatively the same for Models 2, 3 and 4 for Year 2 and all four models for Year 3. Model 1 results in Year 2 are different. Table 8 in Section 4.2.1 reports Year 2 mean discretionary accruals that are statistically significant at probability level .06. The nonparametric test significance level is .11. In the alternate Year 2 test with Year 1 included in the estimation period, the discretionary accruals are negative, but the probability level is not statistically significant (t-test p=.15 and sign-rank p=.28).

Because of this result, Hypotheses 2 and 3 are tested on the subgroups for Model 1. These tests show that data are consistent with Hypothesis 2. Mean and median discretionary accruals for the operator-only firms are statistically negative at probability level .02 for the t-test and the sign-rank test.

The high-price firms' mean discretionary accruals are negative but only at probability level .08; the median is also negative, but the sign-rank test is not statistically significant (p=.14). These results of Hypothesis 3 are weak compared to corresponding results in Table 13.

Use of the alternate estimation periods show that including Year 1 data in the estimation period for purposes of testing Year 2 discretionary accruals leads to results that are less consistent with Hypotheses 1 and 3 than results reported in Section 4.2. The relations

are due at least in part to discretionary accruals that are more negative in Year 1 causing more negative expected accruals and less negative discretionary accruals amounts for Year 2.

4.6.3 Estimation Period Tax Motivations

The first test to assess whether estimation period years are affected by tax motivations is to recalculate the accruals expectations model with a firm-year dummy. The firm-year dummy variable is set equal to one for fourteen observations, seven firms for Year -1 and Year 0. All four regression models are recalculated. A positive coefficient on the dummy indicates tax motivations affect the accruals. The results of these models show that the dummy is positive in all cases. However, none is statistically significant; one-sided probability levels range from .16 to .35.

The alternate tests of tax-related incentives compare mean scaled accruals between two groups for the estimation period Years -3 to 0. The two groups are tax-motivated firm-years (n=14) and non-tax motivated firm-years (n=83). Both measures of accruals, with and without deferred taxes, are used. Mean scaled accruals are less negative for the tax-motivated firm years, consistent with tax-motivated behavior affecting the accruals measures, but the differences are not statistically significant. The results are similar using scaled changes in accruals.

The implication of these tests for hypothesis testing is that tax-motivated behavior during estimation period years does not appear to bias the Year 1 and Year 2 discretionary accruals measures in the predicted direction of earnings management.

4.6.4 Inclusion of Specific Sample Firms

This section reports on the sensitivity of test results to partnership firms and firms with common control. In addition, tests are recalculated using only data for firms with December 31 year-ends.

The effect of partnership characteristics is assessed by including a dummy variable in the four regression expectations models. In three models the dummy coefficient is negative, and in Model 4 the coefficient

is positive. None of the coefficients is statistically significant; the p-values range from .24 to .82.

Model 1 is reestimated excluding partnership firms. Tests of discretionary accruals are negative and consistent with test results presented in Section 4.2. The levels of statistical significance are somewhat lower than those reported in Section 4.2.

Original Model 1 and Model 2 data are used to compare the discretionary accruals between the four partnerships and the other firms. The partnership discretionary accruals in Year 1 and Year 2 are statistically more negative for Model 1 but not Model 2. The four partnerships are strictly cable television operators, and the Model 2 test that includes the revenue percent measure in the expectations model controls for the negative tendency in accruals due to the cable television operations.

Based on these tests the conclusion is made that the partnership firms do not differ systematically from the rest of the sample firms due to some unique partnership aspect. The tests separating the partnerships show that the hypothesized operator-only characteristics are exhibited by the partnerships.

The effect of the inclusion of sample firms with common control is assessed by including only the largest firm from each group. This reduces the number of observations in Year 1 to twenty and in Year 2 to nineteen. Expectations Model 1 is recalculated in order to provide parameters to calculate expected accruals. Discretionary accruals are recalculated for Year 1 and Year 2; the measures are negative and consistent with results for the full sample.

The final test to assess the influence of various sample firms recalculates Model 1 and discretionary accruals using December 31 year-end firms only. This specification reduces both the Year 1 and Year 2 number of observations to eighteen. Tests of discretionary accruals are consistent with results reported in Section 4.2.

The conclusions based on these tests are that results are robust to alternative sets of firms comprising the sample. There is some negative tendency in the discretionary accruals of the partnerships; however, this is consistent with the nature of the operations being one-hundred percent cable television.

CHAPTER 5 - SUMMARY AND CONCLUSIONS

The purpose of this study is to assess the role of accounting information in the political process surrounding the cable television industry. The time period of the study is the post-1984 deregulated era. The industry was subject to increasing political pressure and the threat of reregulation in the late 1980s and into the early 1990s, and earnings management is predicted to occur in this time period. Section 5.1 summarizes the results of the study and the conclusions that are made regarding the cable television industry response to political attention. Section 5.2 discusses the strengths of the cable television industry setting compared to previous studies of political costs. Limitations of the study are discussed in Section 5.3, and Section 5.4 presents suggestions for future research.

5.1 Conclusions Regarding the Political Costs Hypothesis

Hypothesis 1 is directly related to the theory of political costs which states that to the extent a firm is subject to potential wealth transfers in the political process, its management is hypothesized to make accounting choices that reduce the transfer. Two additional hypotheses are investigated in order to provide more powerful tests than tests of Hypothesis 1 and also to provide information regarding potential correlated, omitted variables. The presentation in the remainder of this section, Sections 5.1.1 to 5.1.3, corresponds to the three hypotheses.

Four models are specified in order to measure expected accruals and discretionary accruals. Two of the models exclude deferred taxes and two include deferred taxes. The non-tax models are considered to provide better measures of expected accruals because deferred tax data are not consistent for firms across time periods; thus, the expectation is difficult to measure with confidence. Although a tax-related independent variable is included in these expectations model, it is a

dummy variable that cannot capture magnitude differences in tax data across firms. Therefore, the non-tax models are considered to be more stable and reliable models for calculating expected accruals, which is critical for measuring the earnings management variable, discretionary accruals.

5.1.1 Hypothesis 1

Hypothesis 1 is as follows:

Discretionary accruals for cable television industry firms are more negative in Congressional scrutiny time periods than in non-scrutiny time periods.

Data in the study are consistent with this hypothesis but only for non-tax accruals measures and expectations models. The levels of statistical significance are between .05 and .10 probability levels in most calculations using the non-tax models. The tax model results are not statistically significant.

The interpretation of Hypothesis 1 tests is that data are consistent with the theory of political costs. The cable television industry firms have greater income-decreasing accruals in the Congressional scrutiny time periods than expected based on past relations between accruals and firm characteristics. The industry had been criticized based on accounting-related information, and data are consistent with industry managers attempting to mitigate the effects of that criticism by reducing net income.

5.1.2 Hypothesis 2

Hypothesis 2 is as follows:

The magnitude of negative discretionary accruals in the Congressional scrutiny time periods is positively related to the importance of the cable television operations to the firm.

The importance of the operations to the firm is measured based on the degree to which firms operate in only cable television operations versus other lines of business. The assumption is made that the higher the percent of total revenue derived from cable television operations, the greater the importance of the operations. The results of tests of Hypothesis 2 are strong and consistent across various models and test

specifications. The operator-only group of firms exhibit negative discretionary accruals, and the discretionary accruals are more negative than for the diversified firms. These tests are more powerful than the Hypothesis 1 tests, and the results provide additional data that are consistent with the political costs hypothesis.

5.1.3 Hypothesis 3

Hypothesis 3 is as follows:

The magnitude of negative discretionary accruals in the Congressional scrutiny time periods is positively related to the importance of the potential regulation to the firm.

The importance of potential regulation is measured based on the basic service prices charged by the firm. The potential regulations are assumed to be more important for high-price firms than for low-price firms because regulations were expected to reduce prices to established benchmarks. The data exhibit some consistency with the hypothesis. The directions of test results are as hypothesized; however, the statistical significance of the results of tests of Hypothesis 3 are not as strong and consistent across various models test specifications as the Hypothesis 2 results.

The lack of statistical significance for some of the tests may be due to the fact that the price variable does not capture all the facets of the ramifications of proposed regulations. The price is an average across the firm, and the average may obscure the extent to which each system is expected to be required to reduce prices. Further, other aspects of the subscriber base affect the perceived harm of the regulations. For example, regardless of basic service prices, managers of firms that rely to a greater extent on premium services rather than basic service to generate revenue are likely to be less concerned with regulations.

5.2 Comparisons to Previous Research

The cable television industry setting has several factors that distinguish this study from previous, related studies. Review of

Congressional records, popular press accounts of the reregulation process, and firm publications establish industry sensitivity to political pressure as well as the fact that accounting data played a role in the political process. The investigation of one industry provides the opportunity to define an expectations model that takes into account unique industry characteristics. This provides for high explanatory power of expectations models and reliable measures of discretionary accruals.

The potential confounding effects of firm performance and firm size do not appear to bias tests in this study in the predicted direction of earnings management. Further, multivariate tests of Hypotheses 2 and 3 control for these characteristics. The multivariate approach to examine hypothesized causes of discretionary accruals has not been done in previous studies that use the measure.

5.3 Limitations

There are limitations that are specific to the study as well as that relate to the methodology of using discretionary accruals. The small sample size reduces test power and makes inferences regarding the effect of political costs more problematic than in a large-sample study. It is difficult to identify a proxy variable for the importance of the proposed regulations, and this means interpretations of Hypothesis 3 tests are somewhat unclear. The deferred tax data of firms in the industry are not stable and consistent from year to year and are, therefore, not easy to model. This makes it difficult to identify a single, best definition of accruals.

The methodology of using discretionary accruals has the recognized limitation that the measure does not capture the entire set of choices that managers can exercise over net income. For example, choices can be made regarding timing of gain and loss recognition, but there is not a methodology to separate the expected and unexpected components. This reduces the power of tests.

5.4 Suggestions for Future Research

The primary motivation for this study is to learn about the role of accounting in the political process. Investigations that continue to consider explicitly the political environment will provide additional evidence on the validity of the theory of political costs. A second avenue for future research is to distinguish settings based on the importance of accounting information in the political process. Congressional scrutiny occurs for a wide variety of reasons. It is suggested that research be undertaken to investigate whether there are differences in firms' use of accounting methods and choices to reduce political costs that depend on the degree to which accounting information plays a role in generating political scrutiny.

Other contracting incentives are likely to operate in conjunction with manager motivations due to political costs. Well-developed theories exist related to debt contracts and management compensation contracts. Future research that incorporates other incentives is likely to provide powerful tests of each theory as well as information on the strength of incentives based on the various contracts.

This particular study can be extended by examining financial statement footnotes for changes in accounting methods and changes in accounting estimates that have identifiable effects on net income. Any such changes provide additional evidence on managerial choice exercised over reported accounting numbers. It is also possible to provide descriptive information by reviewing the extent to which there are write-offs and other types of income-decreasing data on the income statement in the years of predicted earnings management.

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APPENDIX
LIST OF SAMPLE FIRMS

LIST OF SAMPLE FIRMS

Firm Name	Year End	Study years[1]	Year 1 Total Assets[2]
Adelphia	March 31	-3 to 3	971.8
American Television and Communications	December 31	-4 to 3	2,031.2
C-TEC	December 31	-4 to 3	486.9
Cablevision	December 31	-4 to 3	1,756.2
Century Communications	May 31	-4 to 3	1,173.3
Comcast	December 31	-4 to 3	2,582.7
Comcast L.P.	December 31	-3 to 3	99.3
Falcon L.P.	December 31	-4 to 3	109.1
First Ameri-cable	August 31	-4 to 1	26.7
Galaxy L.P.	December 31	-1 to 3	38.7
Jones Intercable	May 31	-4 to 3	487.8
Jones L.P.	December 31	-2 to 3	105.8
Jones Spacelink	May 31	-4 to 3	455.7
Knight-Ridder	December 31	-4 to 3	2,134.6
Media General	December 31	-4 to 3	782.7
Multimedia	December 31	-4 to 3	404.1
E.W. Scripps	December 31	-1 to 3	1,564.7
Scripps Howard Broadcasting	December 31	-4 to 3	575.2
TCA Cable	October 31	-4 to 3	327.6
TCI	December 31	-4 to 3	11,432.0
Times Mirror	December 31	-4 to 3	3,947.5
United Artist	December 31	-4 to 2	4,025.8
Viacom	December 31	-4 to 3	3,752.9
Washington Post	December 31	-4 to 3	1,532.2
Rogers Cable	August 31	-4 to 0	1,112.5[3]
United Cable	May 31	-4 to -1	697.3[3]

[1]   Study years: Year 1 and Year 2 are the prediction periods.
      Year 1: fiscal year ends from 8-31-88 to 5-31-89.
      Year 2: fiscal year ends from 8-31-89 to 5-31-90.
      Estimation period years are identified as Years 0, -1, -2, -3, and
      -4 and are respective previous year ends preceding Year 1.
      Year 3 is fiscal years ends one year after Year 2.
[2]   in hundred thousands;
[3] amount is for latest year included in study

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