Recent Trends in Capital Market Research

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AAA Annual Meeting

August 15, 2001

Overview

- Five Streams of Research
  - Market Efficiency
  - Feltham-Ohlson Modeling
  - Value Relevance
  - Analysts Behavior
  - Discretionary Behavior

Overview

- Highlight history and key findings
- Identify links between these areas
- Discuss unresolved issues

Market Efficiency

- What is it important?
  - Implications for regulators
  - Implications for investors
  - Implications for management
  - Implications for auditors
  - Implications for researchers

Market Efficiency -Evidence

- Early evidence
  - Reaction to earnings (Ball and Brown)
  - Changes in accounting methods (Archibald, Ball)
  - Differences in accounting methods (Beaver-Dukes)

More Recent Evidence

Discuss three areas:

- Post-earnings announcement drift
- Market-to-book ratios and refinements
- Contextual accounting issues

Post earnings announcement drift

- Bernard-Thomas--an econometric tour de force
  - Classic in research design
  - Tenaciously pursued alternative explanations
  - Established drift tends to cluster around subsequent earnings announcements

Post earnings announcement drift

- Linked to analyst behavior (Abarbanell and Bernard)
  - Analysts appear to underestimate persistency of earnings
  - Their forecast errors are serially correlated and hence partially predictable
  - This appears to explain some but not all of post announcement drift

Market-to-Book ratios

- High market to book ratios associated with subsequent negative abnormal returns
  - Different from post announcement drift (Ratios highly serially correlated)
  - Using Feltham-Ohlson model even higher abnormal returns are associated with market-to-value ratios (Frankel-Lee, Dechow et al.)

Market-to-book ratios

- Role of analysts: (Dechow and Sloan)
  - Analysts forecasts are optimistic and market appears to naively react to such forecasts
  - Can explain over half of abnormal returns associated with market-to book and related strategies

Contextual Accounting Studies

- Key feature: requires some accounting knowledge
  - Accruals are an important part of financial reporting
  - Market appears to overestimate the persistency of accruals (Sloan)
  - Abnormal accruals at IPO dates appear to partially explain negative returns (Teoh et al.)

Contextual Accounting Studies

- Key feature: requires some accounting knowledge
  - Property casualty development of policy loss reserves appears to be an exception (Beaver-McNichols)
  - Perhaps due to special disclosures that make accrual more transparent

Links to other areas

- Market efficiency research incorporates some aspects of other areas
  - Feltham-Ohlson
  - Analysts behavior
  - Discretionary behavior

Market Efficiency Unresolved Issues

- The magnitude and length of the abnormal returns are staggering.

Market Efficiency Unresolved Issues

- From economic theory, are these the most likely candidates?
- How do we reconcile these results with studies of short-term announcement effects? (Patell and Wolfson)
- How can arcane disclosures (pensions) be reflected in price but not more visible variables? (Barth et al. & others)

Market Efficiency Unresolved Issues

- How can the body of research in aggregate suggest that prices both lead and lag accounting data?

Feltham-Ohlson Modeling

- One of the most important research areas of last ten years (Ohlson,1995, Feltham-Ohlson, 1995)
- In a field dominated by empirical studies, it represents one of the few attempts to analytically develop the relation between value and accounting data

Feltham-Ohlson Modeling

- Reactions have been mixed and the research controversial.

Key Features

- Neither measurement nor information, but a representation
- Provides a role for important features of accounting, such as clean surplus, conservatism, transitory earnings, and book value (as well as earnings)
- Has led to a considerable amount of empirical research

Criticisms

- No demand for accounting data
- No information asymmetry
- No incentives to manage accounting numbers
- Not supported by empirical evidence

Criticisms--Not supported by empirical evidence

- Much of accounting research is reduced form
- Having a model that specifies relationships among coefficients in a set of equations is progress

Overall Contribution

- Potential richness to model because it extends “income theory”
- Most studies append parsimonious model with contextual accounting theory
- Provides a rich set of extensions both theoretical and empirical (nonlinearities and specification of “other information”)

Value Relevance Research

- Major area of empirical research over last ten years and also a controversial one.

Value Relevance Research

- Questions addressed:
  - What is value relevance research?
  - What distinguishes it from other capital market research?
  - What have we learned?
  - What are unresolved issues?

Value Relevance Research

- Value relevance research examines the association between security price based dependent variable and a set of accounting numbers.
- An accounting number is said to be value relevant if it has a significant relation to the dependent variable.

Value Relevance Research

- Incorporation of contextual accounting theory (Barth et al.)
- Distinguishing feature: Timing of information is not a major issue
  - As a result, many value relevance studies are levels rather than first differences studies

Value Relevance Research

- Why is timing not an issue?
  - The market for information may be such that participants seek prior information about forthcoming accounting number (e.g., earnings).
  - In the limit, an accounting number may be completely preempted by more timely sources of information (Demski-Feltham,among others)

Value Relevance Research

- Why is timing not an issue?
  - Moreover, accounting numbers may not be unique representation of the underlying construct.
  - In the limit, a vector of competing variables may be perfectly correlated with the accounting number.
  - However, key role of financial statements is to <u>summarize</u> events in a parsimonious manner.

Value Relevance Research

- Why is timing not an issue?
  - Important to know how well accounting numbers perform this role, even in the presence of competing variables for the same underlying construct.
  - Example: Fair value of bank loans

Value Relevance Research

- Why is timing not an issue?
  - It is in contrast to the informational approach which would require the accounting signal to be unique and not preempted by more timely information and contemporaneous competing variables.

Value Relevance Research

- This has important implications for
  - levels versus first differences
  - the role of competing variables versus variables that are proxies for omitted assets (obligations).

Value Relevance Research

- What is role of research?
- To provide evidence as to whether the accounting numbers relate to value in the predicted manner

Key Findings

- Post retirement assets and obligations are priced as if they are assets and obligations of the company even though some amounts are unrecorded but disclosed in footnotes (Amir, Choi et al.)
- Fair value of financial instruments are priced

Key Findings

- Nonfinancial intangible assets, both recorded and unrecorded, are priced. (Lev and Sougainnis, among others)
- Various components of earnings are associated with different pricing multiples.

So what--to whom is evidence important?

- Direct consumers are academics
- Indirect consumers are regulators,preparers, investors, analysts, and auditors.

Unresolved issues--future research

- Market efficiency
- Econometric issues
- Other purposes of financial statements

Analysts Behavior

- Why is this an important research area?
  - Information intermediaries through which accounting data are reflected in prices

Analysts Behavior-History

- Initially, part of time series behavior of earnings
- More recently, raises issues of incentives, discretion, and efficiency of information processing

What do we know?

- Analysts’ forecasts are optimistic (O’Brien, among others)
- Optimistic bias is associated with underwriter affiliation (Lin-McNichols)
- Analysts with greater accuracy appear to survive longer (Clement)
- Forecasts outperform statistical model (Brown et al., among others)

What do we know?

- Combination of analysts and statistical forecasts do even better (Brown et al.)
- Forecast errors are serially correlated (Abarbanell-Bernard, among others)
- Capital markets appears to react naively to analysts forecasts (Dechow and Sloan)
- Forecasts are a parsimonious proxy for "other information" (Dechow et al.)

Unresolved issues

- Why do analysts appear to underprocess data?
- Do investors make same “errors” as analysts?
- How does importance of accounting information vary with financial reporting environment? (Barth,Kasznik,McNichols)

Discretionary Behavior

- Why is it important?
  - It is a critical aspect of the quality of accounting data. (McNichols)

Discretionary Behavior

- Areas of discretionary behavior
  - Voluntary disclosure
  - Management forecasts
  - Choice of accounting methods
  - Management of accruals

Motives for Discretionary Behavior

- Opportunistic or Signaling

- Specific Motives
  - capital markets
  - compensation
  - debt convenants
  - taxation
  - regulation

Motives for Discretionary Behavior

- Many empirical studies undertaken without specifying the motivation
  - Income smoothing
  - Loss avoidance
- Many incentives operate in reinforcing ways making identification difficult

What do we know?

- Earnings appear to be managed to avoid a loss, to avoid an earnings decline, and to avoid falling below analysts' forecasts (Burgstahler-Dichev, Burgstahler-Eames)
- Earnings management appears to be widespread and readily detectable

What do we know?

- Discretionary and nondiscretionary components appear to be priced differently (Subramanyam, Beaver-Engel)
- Accruals are less persistent than perceived by the market (Sloan)

What do we know?

- Bank loan losses appear to be jointly managed with other alternatives (Beatty, et al.)
- Unusual accruals at IPOs dates and their later reversals appears to be related to the negative abnormal returns associated with IPOs (Teoh et al.)

Types of studies

- Generic model of accruals (Jones)
- Sector-specific models of accruals (banks and insurance sectors)
- Distributional tests (Burgstahler studies)

Estimation of Components

- Nodiscretionary accruals
- Discretionary accruals
  - the “residual”
  - some function of a generic variable, such as earnings or leverage

Unresolved Issues

- Empirical simulations indicate that extant models are not very powerful, yet earnings management is observed in many studies (Dechow et al.)
- Many forms of earnings management are not only identifiable by researchers but also by investors

Unresolved issues

- Why is it so easy to detect earnings management?
- Is management naïve?
- Are earnings management goals still achieved if management is invertible?

Unresolved issues

- What incentives for earnings management are consistent with capital market being able to invert the discretionary portion and price it differently?

Unresolved issues

- Is this a natural manifestation of contracting in an incomplete markets setting (Demski-Frimor)
  - amount of discretion is “known” but not necessarily contractible
  - incentives and costs to eliminate such behavior are unclear

Unresolved issues

- If what is being observed is not discretionary accruals but is a proxy for another factor, what is that factor?
- Evidence indicates that discretionary accruals are correlated with growth and may be proxying for growth related characteristics of firms (McNichols)

Concluding Remarks

- These areas are the most likely to contribute significantly to our knowledge in the next five to ten years.
- Is important research by nature controversial?

- Thank you