NEW ZEALAND INSTITUTE FOR THE STUDY OF COMPETITION AND REGULATION INC.

# Continuous Disclosure: Some Background

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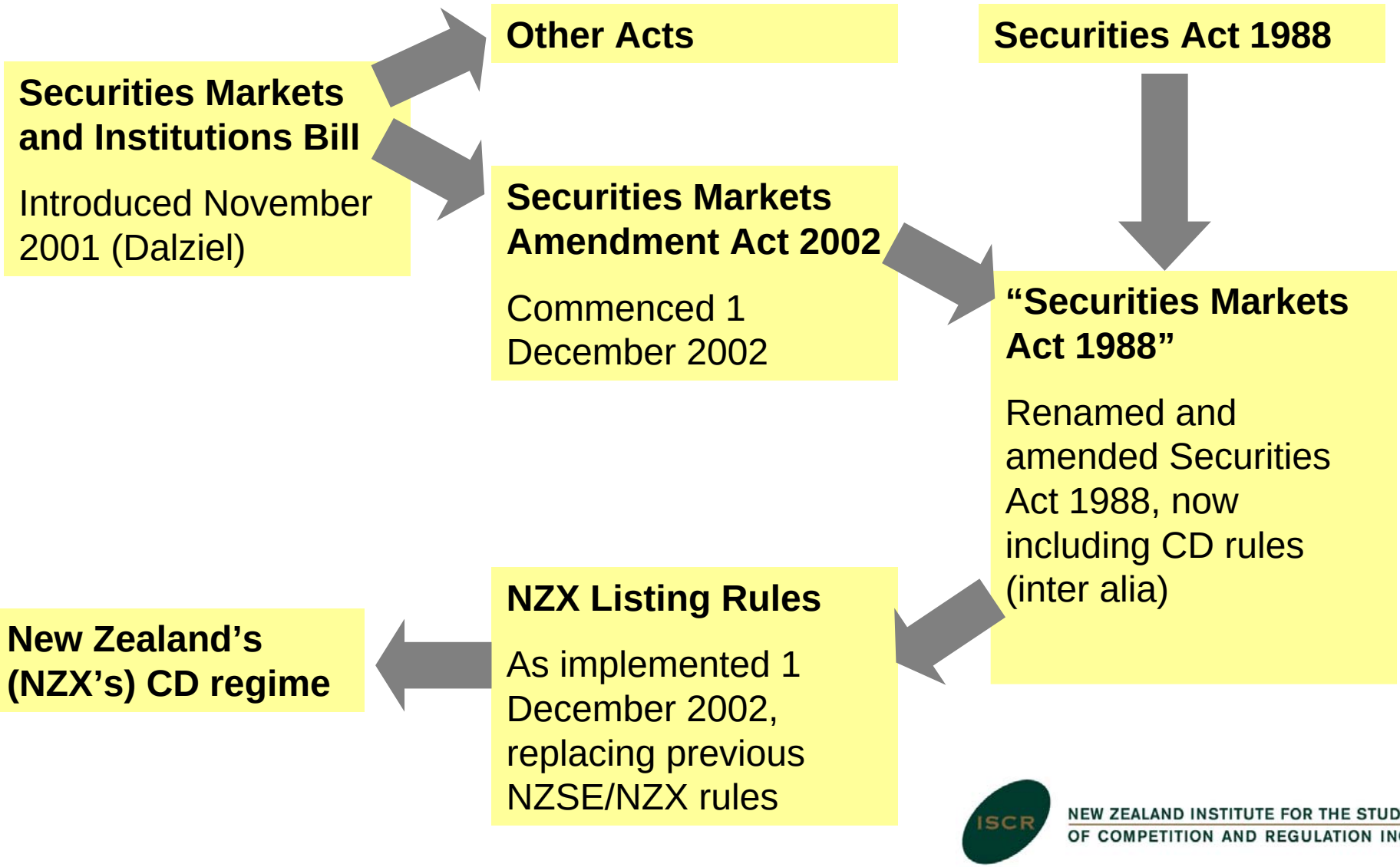
# Overview

- Set out the statutory framework for New Zealand's continuous disclosure (CD) rules
- Examine the CD provisions under NZX's listing rules
- Compare and contrast the New Zealand regime with:
  - Its predecssor under the NZSE/NZX listing rules
  - ASX's CD regime
  - The SEC's "Regulation Fair Disclosure" (Reg FD) in the US

# Statutory Framework



# Securities Markets Act 1988 (from 2002)

- Presumes that information belongs to all of a **pubic issuer's** investors, instead of to issuers themselves

- Obliges public issuers to:
  - Immediately disclose security/issuer-specific, non-public and materially price-sensitive information
  - Avoid the development or subsistence of false/distorted markets

- In effect, also prohibits information disclosures to selected investors

- Legislation sought to:
  - Replace contractual regime with a statutory regime backed by Securities Commission and court enforcement/penalties
  - Improve securities regulation to ensure confidence in the New Zealand "market"
  - Bring New Zealand's securities regulation in line with Australia's

# Securities Markets Act 1988 – Purpose

- Section 19A – to "provide for appropriate continuous disclosure by **public issuers** of **material information** that is **not generally available to the market**."

- Criteria relevant to implementation of that purpose:
  - Appropriate investor protection
  - Integrity and international competitiveness of listed markets
  - Ongoing cost-benefit analysis
  - Consistency and predictability
  - Avoiding unfair advantage from disclosure to selected investors
  - Keeping listed markets in business
  - Supporting the co-regulatory model
  - International best practice
  - "CER"

# Securities Markets Act 1988 – Provisions

- Do unto your issuers or the Minister shall do unto them for you – Minister can recommend regulations if satisfied that registered exchanges' CD listing rules are failing to achieve the 19A purpose

- Where no such regulations are in place – public issuers required to make continuous disclosures pursuant to **continuous disclosure provisions** of registered exchanges' listing rules (19B)

- Otherwise public issuers required to make such disclosures as regulated, with possible exceptions and exemptions (19C)

# Securities Markets Act 1988 – Definitions

- Public issuers – issuers of securities traded on "registered exchanges" (as defined in the SMA)

- Continuous disclosure provisions – Act is non-prescriptive; fleshed out in NZX's listing rules

- Mirrors ASX listing rule definitions in respect of:
  - Material information
  - Information generally available to the market

# Securities Markets Act 1988 – Definitions

- Material information (19E(1)) – that which:

  "a reasonable person would expect, if it were generally available to the market, to have a material effect on the price or value of listed securities of the public issuer …"

- Information is generally available to the market if directly or indirectly (i.e. by way of deduction, etc):

  – It is made known in a way that it would catch the attention of habitual investors, and a reasonable period of time has passed since it was so made known; OR

  – Habitual investors could readily obtain such information

# NZX Listing Rule 10 – As at 10 May 2006

- Material information defined as in the SMA
- NZX issuers required to do three things:
  - Immediately release material information to NZX upon its directors/executive officers becoming aware of such information (subject to “out clause”)
  - Not disclose that information to others prior to disclosing it to NZX
  - Release material information to NZX to prevent the development or subsistence of a market for the issuer’s securities that is materially influenced by false or misleading information from that issuer or from parties giving the information substantial credibility

# NZX Listing Rule 10 – cont'd

- The "out clause" re immediate disclosure (cf ASX listing rules; not found in the SMA itself):
  - Reasonable person would not expect the information to be disclosed AND
  - The information is confidential AND
  - One or more of the following applies:
    - Release would break the law
    - Information concerns incomplete proposal or negotiation
    - Information is supposition or insufficiently determinate
    - Information is generated for internal management purposes
    - Information is a trade secret
- Principal – if in doubt, disclose

# Comparisons and Contrasts

- Like previous listing rules:
  - "Relevant information" similar to material information
  - Disclosures to selected investors to be avoided
  - Issuers required to release relevant information to NZX:
    - To avoid false or misleading markets
    - No later than it is released to parties who might trade on it
    - Once it is no longer more valuable to the issuer to keep that information confidential …
- But previous listing rules differed from current ones:
  - Information belonged to issuers for their own benefit
  - Disclosures to non-entitled parties were prohibited

# Comparisons and Contrasts – cont'd

- New Zealand's current regime modelled on the ASX's CD listing rules (first introduced in 1994)

- New Zealand's regime differs to the US' Reg FD (implemented by the SEC in 2000):
  - Motivated due to concerns about disclosure fairness, not disclosure adequacy
  - Does not mandate CD *per se*, but instead prohibits disclosures to some investors in preference to others
  - Quarterly reporting is the closer US analogue to CD

# The Impact of Continuous Disclosure on the Quality and Quantity of Earnings Forecasts

*Keitha Dunstan*

*Gerry Gallery*

*Thu Phuong Truong*

# Motivation

Limited NZ and international evidence on the effectiveness of alternative corporate disclosure regimes

Recent introduction of the statutory sanctions to support NZX's Continuous Disclosure (**CD**) Listing Rules assumes the new regime will lead to better outcomes

↓

Provides an ideal opportunity to examine the change in effectiveness of a CD Regime

# Research Objective Study One

***What impact has the new CD Regime had on the disclosure behavior of NZ listed companies?***

Focus: comparing the quantity and quality of management earnings forecasts (MEFs) disclosed in announcements to NZX in the pre- & post-statutory sanction periods

# Research Objective

***Advantages of MEFs***

1. Desirable properties of MEFs – frequency, timeliness and quality can be readily evaluated *ex post* through periodic financial reports
2. NZX specifically requires the disclosure of a material change in a listed entity's earnings expectation
3. Avoids using noisy alternatives such as disclosure indices and market-based proxies (e.g. returns, price volatility, bid-ask spread, etc.)

# What are the CD Objectives?

***Continuous disclosure: "timely advice to the market of information required to keep the market informed of events and developments as they occur"*** *(NZX Guidance Note on CD)*

- Two principle objectives:
  - an informed market (between periodic reports)
  - avoidance of unfair access to information (i.e. prevention selective disclosure & insider trading)

- *Differs from other statutory regimes e.g. Reg. FD*

# Disclosure Theory/Literature

***Based on the voluntary disclosure literature:***

- Managers balance conflicting interests in deciding to disclose or withhold information
- Decision is strategically driven and influenced by various factors including a perceived need to:
  - align expectations (Ajinkya and Gift, 1984)
  - avoid litigation or reputation costs (Skinner, 1994 and Kasznik & Lev, 1995)
  - reduce cost of capital (Frankel, McNichols & Wilson, 1995)
  - meet management incentives (Aboody & Kasznik, 2000)
  - comply with the legal regime (Baginski et. al., 2002, Gallery et. al., 2002, Chan et. al., 2004)

# Hypotheses

***Regulatory intervention impacts the disclosure frequency decision***

***H1: The frequency of management earnings forecasts in NZX announcements increases in the post-statutory sanctions period compared to the pre-statutory sanctions period***

# Hypotheses

***Regulatory intervention impacts the disclosure timing decision***

***H2: The frequency of non-routine management earnings forecasts in NZX announcements increases in the post-statutory sanctions period compared to the pre-statutory sanctions period.***

# Hypotheses

***Regulatory intervention impacts the disclosure content (quality) decision***

***H3: Firms release a greater number of higher quality management earnings forecasts in NZX announcements in the post-statutory sanctions period compared to the pre-statutory sanctions period.***

# Sample & Data

- ***Study period:***
  - Pre-CD Regime period: 1 July 1999 to 30 Nov. 2002
  - Post-CD Regime period: 1 Dec. 2002 to 31 Aug. 2004

- ***Data Source:***
  - NZX disclosures sourced from Datex Database

- ***Sample (Table 1):***
  - 94 listed NZ firms with 1353 documents containing 706 earnings forecasts (of varying precision)

# Classification Method

***MEFs are mapped across the financial year and are coded according to the following categories:***

- Non-routine/Routine forecasts
- Good/Bad News forecasts
- General impression/Open-ended/Range/Point forecasts
- Forecast Horizon
- Accuracy

# Research Models

## *H1 Disclosure Frequency:*

**Tested using a pooled cross-sectional logit model (Model 1):**

$$DISCLOSE = \alpha + \beta_1 PRE\_POST + \beta_2 ESIGN\Delta + \beta_3 |EPS\Delta| + \beta_4 EVOL + \beta_5 MCAP + \beta_6 XLIST + \beta_7 PRE\_POSTX + \beta_8 GROWTH + \varepsilon$$

*DISCLOSE* = *frequency a NZX announcement contains a MEF;*
*PRE_POST* = *pre/post 1 Dec. 2002 0/1 indicator;*
*ESIGNΔ* = *negative/positive current period EPS 0/1 indicator;*
*|EPSΔ|* = *Ln(EPS/share price);*
*EVOL* = *Ln (Std dev of EPS over the previous 3 fiscal years);*
*MCAP* = *Ln (MVE);*
*XLIST* = *cross-listed 0/1 indicator variable;*
*PRE_POSTX* = *PRE_POST x XLIST;*
*GROWTH* = *Ln(MVE/BVE)*

# Research Models

## *H2 & H3 Forecast Attributes (Timeliness & Content):*

Tested using pooled cross-sectional logit, OLS, ordered logit models:

$$\textit{Forecast Attribute} = \alpha + \beta_1 PRE\_POST + \beta_2\, ENEWS + \beta_3 |EPS\Delta| + \beta_4 EVOL + \beta_5 MCAP + \beta_6 XLIST + \beta_7 PRE\_POSTX + \beta_8 GROWTH + \varepsilon$$

*Forecast Attribute* = *Routine/Non-routine (EVENT) (H2)*
= *Forecast Horizon (FHORIZON) (H3)*
= *Forecast precision (PRECISE) (H3)*

*ENEWS = 1/0 indicator variable if forecast indicates an expected positive/negative EPS change*

*(* PRECISE is added to the FHORIZON model &*
*EVENT, FHORIZON are added to the PRECISE model)*

# Results – Table 2

**Frequencies of Sample Firms Providing Earnings Forecasts – 1 July 1999 to 31 August 2004 Classified by Yearly Periods, News Type, and Event Type**

| No. of Disclosures per period | No. of Firm Periods | Good News | Bad News | Quan | Qual | Non-routine Event | Routine Event | Total Disclosures |
|---|---|---|---|---|---|---|---|---|
| Full Sample (N=706) | 453 | 572 | 134 | 157 | 549 | 95 | 611 | 706 |
| Pre-Period (N = 410) | 292 | 335 | 75 | 57 | 353 | 41 | 369 | 410 |
| Post-Period (N = 296) | 161 | 237 | 59 | 100 | 196 | 54 | 242 | 296 |
| | %Preempt. | %Tot. | %Tot. | %Tot. | %Tot. | %Tot. | %Tot. | |
| Pre-Period | 67% | 82% | 18% | 14% | 86% | 10% | 90% | |
| Post-Period | 74% | 80% | 20% | 34% | 66% | 18% | 82% | |

# Results – Table 3

**Earnings Forecasts Classified by Negative and Positive Earnings Change Partitions For All Sample Firm Years and Pre & Post Regime Change Firm Years**

| | Pre-Period | | Post-Period | |
|---|---|---|---|---|
| Earnings Change | No. of Firm Periods | No. (%) of Periods Pre-empted by an Earnings Forecast | No. of Firm Periods | No. (%) of Periods Pre-empted by an Earnings Forecast |
| < -0.1 | 28 | 19 (32.14%) | 18 | 12 (66.67%) |
| -0.1 to -0.05 | 23 | 16 (69.57%) | 10 | 7 (70.00%) |
| -0.05 to -0.01 | 37 | 24 (64.86%) | 21 | 18 (85.71%) |
| -0.01 to 0 | 27 | 13 (48.15%) | 12 | 10 (83.33%) |
| 0 to 0.01 | 37 | 24 (64.86%) | 19 | 14 (73.68%) |
| 0.01 to 0.05 | 68 | 44 (64.71%) | 40 | 32 (80.00%) |
| 0.05 to 0.1 | 26 | 19 (73.08%) | 13 | 11 (84.61%) |
| > 0.1 | 46 | 33 (71.74%) | 28 | 15 (53.57%) |
| N | 292 | 192 (65.75%) | 161 | 119 (73.91%) |

# Results –Table 4

| Variable | Mean | Median |
|---|---|---|
| ***Pre-Period Regime Sub-sample (N = 469)*** | | |
| *EPS Change* | 0.161 | 0.040 |
| *\|EPSΔ\|* | -3.275 | -3.231 |
| *EPS Volatility* | 0.362 | 0.047 |
| *EVOL* | -2.835 | -3.063 |
| *MV* | 2332660 | 125350 |
| *MCAP* | 12.053 | 11.739 |
| *MV/BV* | 1.703 | 1.300 |
| *GROWTH* | 0.258 | 0.262 |
| *FHORIZON** | 212.41 | 228.00 |
| ***Post-Period Regime Sub-sample (N = 237)*** | | |
| EPS Change | 0.113 | 0.031 |
| *\|EPSΔ\|* | -3.343 | -3.483 |
| *EPS Volatility* | 0.197 | 0.047 |
| *EVOL* | -2.861 | -3.049 |
| *MV* | 1561409 | 155700 |
| *MCAP* | 12.204 | 11.956 |
| *MV/BV* | 1.872 | 1.305 |
| *GROWTH* | 0.355 | 0.266 |
| *FHORIZON** | 184.51 | 152.00 |

# Results – Tables 5-8

| Summary of Table 5 to 8 (Full Sample) | | | | |
|---|---|---|---|---|
| ***Variable*** | ***DISCLOSE*** | ***EVENT*** | ***FHORIZON*** | ***PRECISE*** |
| *Intercept* | -0.452 | -0.261 | 202.846** | 1.636 |
| ***PRE_POST*** | **0.356**** | **1.135**** | **-20.361*** | **0.771**** |
| *ESIGNΔ* | 0.245* | | | |
| *ENEWS* | | -1.680** | 39.553** | -0.582** |
| *\|EPSΔ\|* | -0.113* | -0.100 | -0.313 | -0.283** |
| *EVOL* | 0.235** | 0.347** | -5.500 | 0.359** |
| *MCAP* | 0.078* | -0.023 | -3.363 | -0.216** |
| *XLIST* | -0.426** | 0.050 | 23.081* | 0.696* |
| *PRE_POSTX* | -0.382 | -0.017 | 11.059 | 0.505 |
| *GROWTH* | -0.251** | -0.230 | 4.895 | 0.331* |
| *PRECISE* | | | -18.354** | |
| *EVENT* | | | | 0.847** |
| *FHORIZON* | | | | -0.003** |
| *N* | 1353 | 706 | 706 | 706 |

# Results: Tables 5-8
# Bad News sub-sample

| Summary of Table 5 to 8 (Negative/Bad News Sub-Sample) | | | | |
|---|---|---|---|---|
| ***Variable*** | ***DISCLOSE*** | ***EVENT*** | ***FHORIZON*** | ***PRECISE*** |
| *Intercept* | -0.974 | -1.105 | 108.333 | 0.396 |
| ***PRE_POST*** | **0.738**** | **1.108*** | **0.175** | **1.309**** |
| *ESIGNΔ* | | | | |
| *ENEWS* | | | | |
| *\|EPSΔ\|* | -0.014 | 0.073 | 6.117 | 0.027 |
| *EVOL* | 0.146* | 0.225 | -15.340 | -0.151 |
| *MCAP* | 0.125* | 0.087 | 4.748 | -0.081 |
| *XLIST* | -0.846** | -0.736 | 16.599 | -0.279 |
| *PRE_POSTX* | -0.326 | 0.289 | -11.988 | 1.060 |
| *GROWTH* | -0.187* | -0.490 | 3.659 | -0.156 |
| *PRECISE* | | | -33.576** | |
| *EVENT* | | | | 0.643 |
| *FHORIZON* | | | | -0.007** |
| *N* | 543 | 134 | 134 | 134 |

# Findings Study One

- ***We find limited improvement in the quantity and quality of earnings forecasts following the introduction of the statutory-backed CD Regime***
  - Improvement mostly driven by firms expecting negative earnings change
  - Large number of periods not pre-empted with at least one forecast
  - Large number of qualitative & routine forecasts, forecast horizon has declined and accuracy has not improved
- ***Little evidence of a "continuous" disclosure culture arising from the new CD regime***

# Research Objective Study Two

***What impact has the new CD Regime had on the capital market interpretation of the disclosure behaviour of NZ listed companies?***

- Focus: comparing the capital market reaction to management earnings forecasts (MEFs) and earnings announcements (EAs) in the pre- & post-statutory sanctions periods

# Literature Review

- Empirical research from the U.S. and Australia documents the capital market reaction to MEFs
- Most studies document a greater capital market reaction for bad news than good news MEFs
- Capital market reaction varies depending on investor confidence in the quality of information disclosed

# Hypotheses

***Regulatory intervention impacts the capital market reaction to MEFs***

- H1: The capital market reaction to management earnings forecasts is less in the post-statutory sanction period than in the pre-statutory sanction period
- H2: The asymmetrical capital market reaction to bad and good news management earnings forecasts is less in the post-statutory sanction period than in the pre-statutory sanction period
- H3: The asymmetrical capital market reaction to non-routine and routine management earnings forecasts is less in the post-statutory sanction period than in the pre-statutory sanction period

# Hypotheses

***Regulatory intervention impacts the capital market reaction to EAs***

- H4: The capital market reaction to preliminary earnings announcements is less in the post-statutory sanction period than in the pre-statutory sanction period
- H5: The asymmetrical capital market reaction to bad and good news preliminary earnings announcements is less in the post-statutory sanction period than in the pre-statutory sanction period

# Sample & Data

***Study Period:***

- Pre-CD Regime period: 31 Jan. 1999 to 30 Nov. 2002
- Post-CD Regime period: 1 Dec. 2002 to 30 Sep. 2005

***Data Source:***

- NZX disclosures sourced from Datex Database
- ***Sample:***
- 94 listed NZ firms with 619 firm years and 2603 documents containing 701 earnings forecasts

# Classification Method

***MEFs are mapped across the financial year and are coded according to the following categories:***

- Non-routine/Routine
- Good/Neutral/Bad News
- General impression/Open-ended/Range/Point
- Low/Medium/High Level of Certainty
- Forecast Horizon

# Research Models

***H1, H2 & H3 Capital market reaction to MEFs:***

Tested using a pooled cross-sectional OLS model:

$$ABSCAR_{it} = \alpha + \beta_1 PRE\_POST_{it} + \beta_2 ENEWS_{it} + \beta_3 |EPS\Delta|_{it} + \beta_4 EVOL_{it} + \beta_5 EVENT_{it} + \beta_6 PRECISE_{it} + \beta_7 CERTAINTY_{it} + \beta_8 HORIZON_{it} + \beta_9 MCAP_{it} + \beta_{10} XLIST_{it} + \beta_{11} GROWTH_{it} + \varepsilon_{it}$$

# Research Models

***H4 & H5 Capital market reaction to EAs***

Tested using pooled cross-sectional OLS models:

$$\textit{Capital market reaction} = \alpha + \beta_1 PRE\_POST_{it} + \beta_2 ESIGN_{it} + \beta_3 |EPS\Delta|_{it} + \beta_4 EVOL_{it} + \beta_5 MCAP_{it} + \beta_6 XLIST_{it} + \beta_7 GROWTH_{it} + \varepsilon_{it}$$

$$\textit{Capital market reaction} = ABSPreDateCAR$$

$$= ABSLongWindow$$

$$= ABSCombinedWindow$$

*(*FORECAST is added to the ABSPreDateCAR model)*

# Results – Table 2

**Table 2**
**Average Five-Day Market-Adjusted Abnormal Return Associated With 701 Management Earnings Forecasts**

| ***Full Sample (N = 701)*** | **Bad News** | **Good News** | **t-stats between Bad/Good** |
|---|---|---|---|
| All Earnings Forecasts | -5.2656% | 1.1017% | 2.4255* |
| Routine Earnings Forecasts | -2.1835% | 0.4324% | 0.5968 |
| Non-routine Earnings Forecasts | -9.1734% | 4.7977% | 1.8364^ |
| Qualitative Earnings Forecasts | -4.1305% | 0.6830% | 1.1547 |
| Open-ended Earnings Forecasts | -7.4597% | 1.0651% | 1.1296 |
| Range Earnings Forecasts | -7.2616% | 0.8210% | 1.3435 |
| Point Earnings Forecasts | -4.8071% | 2.7561% | 1.2792 |
| ***Pre-CD Regime Period Sub-sample (N=305)*** | | | |
| All Earnings Forecasts | -7.7033% | 0.8682% | 1.9988^ |
| Routine Earnings Forecasts | -3.7282% | 0.6193% | 0.4815 |
| Non-routine Earnings Forecasts | -12.7154% | 3.5323% | 1.823^ |
| Qualitative Earnings Forecasts | -4.5526% | 0.7056% | 0.8298 |
| Open-ended Earnings Forecasts | -6.1136% | 0.3082% | 1.0936 |
| Range Earnings Forecasts | -25.5491% | 0.2461% | 1.805 |
| Point Earnings Forecasts | -10.4263% | 2.2850% | 0.977 |
| ***Post-CD Regime Period Sub-sample (N=396)*** | | | |
| All Earnings Forecasts | -3.5755% | 1.2969% | 1.4227 |
| Routine Earnings Forecasts | -1.1169% | 0.2514% | 0.4028 |
| Non-routine Earnings Forecasts | -6.7047% | 5.2279% | 0.568 |
| Qualitative Earnings Forecasts | -3.2862% | 0.6563% | -0.2786 |
| Open-ended Earnings Forecasts | -8.4693% | 1.4705% | 0.8313 |
| Range Earnings Forecasts | -2.9587% | 0.9399% | -0.0027 |
| Point Earnings Forecasts | -2.8805% | 2.9917% | 1.003 |

# Results – Table 3

**Table 3**
**Average Market-Adjusted Abnormal Returns for 340 Firm Years during Which Earnings News Was Pre-empted**

| ***Full Sample (N=340)*** | **Full Sample** | **Negative EPS Change** | **Positive EPS Change** | **t-stat.** |
|---|---|---|---|---|
| N | 340 | 121 | 219 | |
| Abnormal Return Cumulated over All Earnings Related Announcements for the Year[1] | -0.6887% | -7.0943% | 2.8505% | 0.9291 |
| Earnings-Announcement-Period Abnormal Return | -0.1147% | -2.0341% | 0.9458% | 1.6978^ |
| ***Pre-CD Regime Period Sub-sample (N=165)*** | | | | |
| N | 165 | 58 | 107 | |
| Abnormal Return Cumulated over All Earnings Related Announcements for the Year | -1.4618% | -8.6886% | 2.4556% | 0.933 |
| Earnings-Announcement-Period Abnormal Return | 0.1088% | -3.0569% | 1.8247% | 1.0828 |
| ***Post-CD Regime Period Sub-sample (N=175)*** | | | | |
| N | 175 | 63 | 112 | |
| Abnormal Return Cumulated over All Earnings Related Announcements for the Year | 0.0402% | -5.6266% | 3.2278% | 0.2991 |
| Earnings-Announcement-Period Abnormal Return | -0.3254% | -1.0925% | 0.1062% | -1.0959 |

# Results – Table 4

| Variable | Mean | Median |
|---|---|---|
| ***Pre-CD Regime Sub-sample (N=305)*** | | |
| *EPS Change** | 0.23799 | 0.04208 |
| *\|EPSΔ\|** | -3.10156 | -3.16748 |
| *EPS Volatility** | 0.28067 | 0.05318 |
| *EVOL** | -2.74689 | -2.93399 |
| *MV** | 1,334,213,989 | 121,650,000 |
| *MCAP** | 18.81775 | 18.61666 |
| *MV/BV** | 1.58186 | 1.19961 |
| *GROWTH** | 0.20926 | 0.18199 |
| *FHORIZON** | 201 | 212 |
| *CAR* | -0.00850 | -0.00272 |
| *ABSCAR* | 0.05746 | 0.03542 |
| ***Post-CD Regime Sub-sample (N=396)*** | | |
| *EPS Change** | 0.10706 | 0.02423 |
| *\|EPSΔ\|** | -3.53947 | -3.70541 |
| *EPS Volatility** | 0.17671 | 0.04689 |
| *EVOL** | -3.00793 | -3.06006 |
| *MV** | 1,904,834,444 | 194,740,000 |
| *MCAP** | 19.22179 | 19.08718 |
| *MV/BV** | 2.15348 | 1.58009 |
| *GROWTH** | 0.47473 | 0.45748 |
| *FHORIZON** | 187 | 183 |
| *CAR* | 0.00162 | 0.00218 |
| *ABSCAR* | 0.05287 | 0.03319 |

# Results – Table 5

| Variable | Mean | Median |
|---|---|---|
| ***Pre-CD Regime Sub-sample (N=341)*** | | |
| *EPS Change* | 0.59714 | 0.04010 |
| *\|EPSΔ\|* | -3.21337 | -3.21473 |
| *EPS Volatility* | 0.27442 | 0.04724 |
| *EVOL* | -3.01060 | -3.05252 |
| *MV** | 1,919,897,299 | 101,000,000 |
| *MCAP** | 18.54718 | 18.43063 |
| *MV/BV** | 1.93936 | 1.17436 |
| *GROWTH** | 0.28170 | 0.17104 |
| *PreDateCAR* | -0.00302 | 0.00273 |
| *ABSPreDateCAR** | 0.05833 | 0.03595 |
| ***Post-CD Regime Sub-sample (N=278)*** | | |
| *EPS Change* | 0.13847 | 0.02912 |
| *\|EPSΔ\|* | -3.41782 | -3.53253 |
| *EPS Volatility* | 0.27260 | 0.04689 |
| *EVOL* | -3.06225 | -3.06006 |
| *MV** | 1,532,978,417 | 169,915,000 |
| *MCAP** | 18.80275 | 18.95081 |
| *MV/BV** | 2.62249 | 1.37647 |
| *GROWTH** | 0.47347 | 0.35606 |
| *PreDateCAR* | -0.00162 | -0.00351 |
| *ABSPreDateCAR** | 0.04712 | 0.02883 |

# Results - Table 6

| Variable | Mean | Median |
|---|---|---|
| ***Pre-CD Regime Sub-sample (N=165)*** | | |
| *EPS Change** | 0.25949 | 0.04180 |
| *\|EPSΔ\|** | -3.07529 | -3.17147 |
| *EPS Volatility* | 0.26532 | 0.05330 |
| *EVOL* | -2.77029 | -2.93190 |
| *MV** | 1,333,164,266 | 108,200,000 |
| *MCAP** | 18.65466 | 18.49949 |
| *MV/BV** | 1.73090 | 1.19925 |
| *GROWTH** | 0.25209 | 0.19385 |
| *LongWindow* | -0.04966 | 0.01898 |
| *ABSLongWindow** | 0.21153 | 0.11986 |
| *CombinedWindow* | -0.05647 | 0.01813 |
| *ABSCombinedWindow* | 0.23853 | 0.14194 |
| ***Post-CD Regime Sub-sample (N=175)*** | | |
| *EPS Change** | 0.14036 | 0.02619 |
| *\|EPSΔ\|** | -3.47439 | -3.62788 |
| *EPS Volatility* | 0.25067 | 0.04616 |
| *EVOL* | -2.99052 | -3.07559 |
| *MV** | 1,686,931,771 | 192,170,000 |
| *MCAP** | 19.19639 | 19.07389 |
| *MV/BV** | 2.17560 | 1.58009 |
| *GROWTH** | 0.47010 | 0.45748 |
| *LongWindow* | 0.00657 | 0.00707 |
| *ABSLongWindow** | 0.14195 | 0.08774 |
| *CombinedWindow* | 0.01017 | 0.01033 |
| *ABSCombinedWindow* | 0.18170 | 0.13422 |

# Results: Table 7 to 10

**Summary of Table 7 to 10**

| *Variable* | *ABSCAR* | *ABSPreDateCAR* | *ABSLongWindow* | *ABSCombinedWindow* |
|---|---|---|---|---|
| *Intercept* | 0.23830** | 0.21915** | 0.86857** | 0.90174** |
| *PRE_POST* | -0.01514 | -0.09043* | -0.10869* | -0.07059^ |
| *ESIGN* | | -0.03414 | -0.11290* | -0.13397** |
| *ENEWS* | -0.07662* | | | |
| *\|EPSΔ\|* | 0.08853^ | 0.09906* | 0.17356* | 0.14320* |
| *EVOL* | 0.02389 | 0.00713 | 0.10356 | 0.11484 |
| *EVENT* | 0.20173** | | | |
| *PRECISE* | -0.00257 | | | |
| *CERTAINTY* | 0.02670 | | | |
| *FHORIZON* | 0.01968 | | | |
| *MCAP* | -0.24550** | -0.25586** | -0.22555** | -0.20494** |
| *XLIST* | 0.12320* | 0.10389* | 0.07687 | 0.10582 |
| *GROWTH* | 0.00571 | 0.04397 | 0.17313** | 0.13540 |
| *FORECAST* | | 0.04735 | | |
| *Adjusted $R^2$* | 0.07926 | 0.06899 | 0.11176 | 0.08627 |
| *F-Value* | (6.38384)** | (6.57628)** | (6.98568)** | (5.49143)** |
| *N* | 701 | 619 | 340 | 340 |

# Results: Table 7-10
# Pre-CD Regime Sub-sample

**Summary of Table 7 to 10**
**Pre-CD Regime Sub-sample**

| *Variable* | *ABSCAR* | *ABSPreDateCAR* | *ABSLongWindow* | *ABSCombinedWindow* |
|---|---|---|---|---|
| *Intercept* | 0.17673* | 0.24207** | 1.30440** | 1.32484** |
| *PRE_POST* | | | | |
| *ESIGN* | | -0.00299 | -0.15015* | -0.18520** |
| *ENEWS* | -0.11167* | | | |
| *\|EPSΔ\|* | 0.03926 | 0.13999* | 0.14730^ | 0.12073 |
| *EVOL* | 0.09181 | -0.00611 | 0.20041^ | 0.22073^ |
| *EVENT* | 0.21191** | | | |
| *PRECISE* | 0.00720 | | | |
| *CERTAINTY* | 0.07101 | | | |
| *FHORIZON* | 0.05979 | | | |
| *MCAP* | -0.15415* | -0.24968** | -0.28363** | -0.26050** |
| *XLIST* | 0.12031 | 0.09805 | 0.16652^ | 0.18314^ |
| *GROWTH* | -0.00114 | 0.00408 | 0.25704** | 0.23003** |
| *FORECAST* | | 0.03798 | | |
| *Adjusted $R^2$* | 0.06158 | 0.06559 | 0.16714 | 0.16099 |
| *F-Value* | (2.93571)** | (4.30934)** | (6.31796)** | (6.08472)** |
| *N* | 305 | 341 | 165 | 165 |

# Results: Table 7-10
# Post-CD Regime Sub-sample

**Summary of Table 7 to 10**
**Post-CD Regime Sub-sample**

| *Variable* | *ABSCAR* | *ABSPreDateCAR* | *ABSLongWindow* | *ABSCombinedWindow* |
|---|---|---|---|---|
| *Intercept* | 0.28770** | 0.16598** | 0.32499* | 0.37884^ |
| *PRE_POST* | | | | |
| *ESIGN* | | -0.10237* | -0.01562 | -0.02416 |
| *ENEWS* | -0.02109 | | | |
| *\|EPSΔ\|* | 0.16730** | 0.06086 | 0.26118* | 0.19226* |
| *EVOL* | -0.07922 | 0.00167 | -0.12127 | -0.09450 |
| *EVENT* | 0.16529** | | | |
| *PRECISE* | -0.01293 | | | |
| *CERTAINTY* | -0.03787 | | | |
| *FHORIZON* | -0.04766 | | | |
| *MCAP* | -0.33252** | -0.24977** | -0.09876 | -0.08634 |
| *XLIST* | 0.13755* | 0.11457 | -0.03241 | 0.03640 |
| *GROWTH* | 0.00557 | 0.13405* | -0.03462 | -0.07149 |
| *FORECAST* | | 0.04616 | | |
| *Adjusted $R^2$* | 0.12672 | 0.05394 | 0.04553 | 0.01526 |
| *F-Value* | (6.68835)** | (3.2071)** | (2.37545)* | (1.44687) |
| *N* | 396 | 278 | 175 | 175 |

# Concluding Remarks

***We find qualified support for the positive effects of the more onerous disclosure regime for the New Zealand capital market***

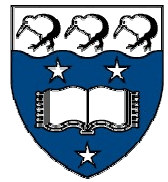
- The capital market no longer placed emphasis on bad news forecasts in the post sanction period
- The abnormal market adjusted returns for preliminary earnings announcements has diminished in the post sanction period

↓

- The capital market is better informed in a more timely manner about earnings related information
- The regulation has indeed improved the efficiency and integrity of the capital market

# The impact of disclosure reform on the NZX's financial information environment

By Meng Huang, Alastair Marsden and Russell Poskitt
*The University of Auckland*



THE UNIVERSITY OF AUCKLAND
BUSINESS SCHOOL

**ISCR Workshop**
**Continuous Disclosure**
**29 June 2006**

# New Disclosure Regime

In December 2002 the NZX introduced a new disclosure regime for listed stocks.

- Companies required to immediately release all price-sensitive information to investors.
- Prior to 2002, Listing Rule 10.1 required a listed company to treat information as an asset, to be used and applied for its overall benefit.
- New listing rules require that material (i.e. price-sensitive) information be disclosed immediately, on the presumption that the information belongs to all investors.

There was also statutory backing for the continuous disclosure listing rules (amendments to the Securities Markets Act 1988).

# Purpose of the new disclosure rules

NZX (2005) argues that the new continuous disclosure rules would:

- reduce information costs and information gap between informed and uninformed investors,
- assist investors in making informed decisions; and
- enhance confidence in the integrity of the market by removing opportunities for insider trading.

Etebari, Tourani-Rad and Gilbert (2004) – study 93 NZ listed companies over 1995 – 2001 period. Report that insiders earn significantly large abnormal returns on transactions, with gains coming largely from transactions involving delayed disclosure.

# Impact of the new Continuous Disclosure Rules

**Two central hypotheses are:**

H1: *Analysts' forecast error and dispersion are lower in the post-reform period*.

and

H2: *The information gap is lower in the post-reform period*.

# Prior research into Information Disclosure Regimes

| | |
|---|---|
| Australia | Brown et al. (1999). Analysts' earnings forecasts did not became more accurate or less disperse post the introduction of statutory backed continuous disclosure requirements. |
| US and Reg FD | Heflin et al. (2003) – No change in analysts' earnings forecast errors or dispersion after introduction of Reg FD.<br><br>Bailey et al. (2003) - Analysts' forecast less accurate after introduction of Reg FD.<br><br>Irani and Karamanou (2003) – Dispersion of analysts' forecasts increased post-Reg FD. |

# Informational efficiency of stock prices

| | |
|---|---|
| **Australia** | Brown et al. (1999). Stock prices of small firms better anticipated the information content of annual earnings announcements post- the introduction of statutory backed continuous disclosure requirements. |
| **US and Reg FD** | Heflin et al. (2003). Deviations between pre- and post-announcement stock prices became smaller in the post-Reg FD. |
| **NZ** | Poskitt and Yang (2005). Disclosure reforms had no impact on the level of informed trading in NZX-listed stocks.<br><br>Dunstan, Gallery and Troung (2005, 2006) – (i) quality and quantity of management forecasts improved particularly for firms reporting unfavourable news; and (ii) abnormal market adjusted returns for preliminary earnings announcements diminished in the post-statutory regime period. |

# DATA

Data on analysts' forecast EPS, stock returns and earnings announcements dates – IBES / NZX / Datex.

Our final sample for stocks listed over the 4-year period 1 Jan 2001 to 31 Dec 2004:

**(i)** Analysis of analysts' forecasts - 40 NZSX-listed stocks

**(ii)** Analysis of stock price information efficiency - 62 NZSX-listed stocks.

Pre-reform - 1 January 2001 and 31 December 2002

Post-reform - 1 January 2003 and 31 December 2004

# METHODOLOGY



**Measure of Analyst Forecast error ($FE_{it}$)**

$$FE_{it} = \frac{| AEPS_{it} - FEPS_{it} |}{P_{it}}$$

$FE_{it}$ = Forecast error for firm *i* at time *t*.

$AEPS_{it}$ = Actual earnings per share for firm *i* at time *t*.

$FEPS_{it}$ = Mean financial analysts' earnings forecast (the earnings forecast is measured using the most recent analysts' forecasts prior to the announcement date).

$P_{it}$ = stock price at the end of the firm's fiscal year *t* for firm *i*.

# Measure of Analyst Forecast dispersion ($FD_{it}$)

$$FD_{it} = \frac{SD_{it}}{P_{it}}$$

$FD_{it}$ = forecast dispersion for firm *i* at time *t*.

$SD_{it}$ = the standard deviation of individual analysts' forecasts.

$P_{it}$ = the stock price at the end of the firm's fiscal year *t* for firm *i*.

# EMPIRICAL RESULTS - Analysts' Forecasts



**Absolute Analyst Forecast Error and Forecast Dispersion**

| | **Forecast error N = 160** | | **Forecast dispersion N = 151** | |
|---|---|---|---|---|
| | Mean | Median | Mean | Median |
| Pre-reform | 0.0253 | 0.0092 | 0.0118 | 0.0063 |
| Post-reform | 0.0429 | 0.0060 | 0.0072 | 0.0043 |
| Difference | +0.0176 | -0.0032 | -0.0046 | -0.0020 |
| p-value | 0.26 | 0.27 | **0.02** | **0.01** |

No significant difference in analysts' forecast errors but analysts' dispersion of earnings forecasts decreases.

# Cross-sectional analysis

$$FE_{it} = \alpha_0 + \lambda_1 REFORM + \lambda_2 MV_{it} + \lambda_3 DAYS_{it} + \lambda_4 ANA_{it} + \lambda_5 ESUP_{it} + \lambda_6 NEGE_{it} + \lambda_7 LOSS_{it} + \lambda_8 FD_{it} + e_{it}$$

$$FD_{it} = \alpha_0 + \lambda_1 REFORM + \lambda_2 MV_{it} + \lambda_3 DAYS_{it} + \lambda_4 ANA_{it} + \lambda_5 ESUP_{it} + \lambda_6 NEGE_{it} + \lambda_7 LOSS_{it} + e_{it}$$

| Variable | Predicted sign | Definition |
|---|---|---|
| REFORM | -ve | Dummy variable = 1 if post-reform period, and 0 otherwise |
| MV | -ve | Natural log of total market cap |
| DAYS | +ve | Log of the number of days by which the forecast precedes the earnings announcement |
| ANA | -ve | Number of analysts generating mean forecasts of earnings |
| ESUP | +ve | Absolute value of the difference between the current year's EPS and last year's EPS at time t , divided by the price |
| NEGE | +ve | Value of 1 if the current year's EPS is below last year's EPS, and 0 otherwise |
| LOSS | +ve | Equals 1 if reported profits are negative and 0 otherwise |
| FD | +ve | Forecast dispersion |

# Descriptive Statistics for Control Variables in the Regressions of Absolute Forecast Error and Forecast Dispersion

| | Mean | | | |
|---|---|---|---|---|
| | **Overall** | **Pre-reform** | **Post-reform** | **p-value** |
| MV | 5.7880 | 5.6784 | 5.8975 | (0.27) |
| DAYS | 2.4107 | 2.4338 | 2.3876 | (0.77) |
| **ANA** | **4.9750** | **4.9875** | **4.9625** | **(0.95)** |
| ESUP | 0.0524 | 0.0364 | 0.0684 | (0.17) |
| NEGE | 0.4313 | 0.5000 | 0.3625 | (0.08) |
| LOSS | 0.0938 | 0.0875 | 0.1000 | (0.79) |

# Analyst Forecast Error

**Regression of Absolute Analyst Forecast Error on REFORM Indicator and Control Variables**

$$FE_{it} = \alpha_0 + \lambda_1 REFORM + \lambda_2 MV_{it} + \lambda_3 DAYS_{it} + \lambda_4 ANA_{it} + \lambda_5 ESUP_{it} + \lambda_6 NEGE_{it} + \lambda_7 LOSS_{it} + \lambda_8 FD_{it} + e_{it}$$

| | | Model 1 OLS | Model 1 Fixed effects |
|---|---|---|---|
| **Variable** | **Predicted sign** | **Coefficient (t stats)** | **Coefficient (t stats)** |
| Constant | | 0.0179<br>(0.98) | -0.0030<br>(-0.03) |
| REFORM | -ve | 0.0015<br>(0.22) | 0.0022<br>(0.26) |
| MV | -ve | -0.0028<br>(-1.04) | 0.0001<br>(0.01) |
| DAYS | +ve | -0.0021<br>(-0.60) | -0.0030<br>(-0.63) |
| ANA | -ve | Not Sig. | Not Sig. |
| **ESUP** | **+ve** | **0.5257<br>(21.51)*** ** | **0.5022<br>(15.38)*** ** |
| NEGE | +ve | -0.0030<br>(-0.43) | -0.0070<br>(-0.82) |
| **LOSS** | **+ve** | **0.0827<br>(6.33)*** ** | **0.1001<br>(5.84)*** ** |
| FD | +ve | 0.3327<br>(1.01) | 0.4938<br>(0.98) |
| Adjusted $R^2$ | | 0.845 | 0.870 |

# Analyst Forecast Dispersion



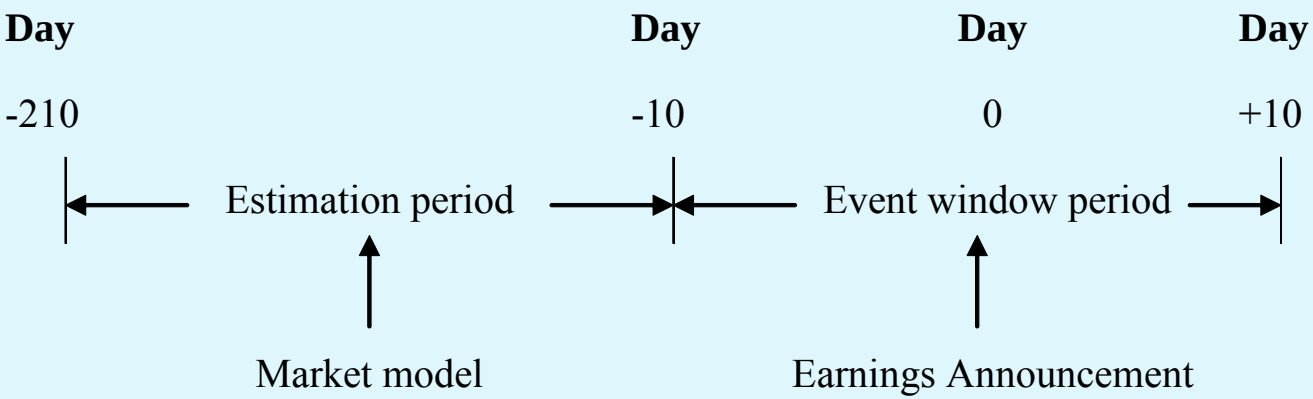
**Regression of Forecast Dispersion on REFORM Indicator and Control Variables**

$$FD_{it} = \alpha_0 + \lambda_1 REFORM + \lambda_2 MV_{it} + \lambda_3 DAYS_{it} + \lambda_4 ANA_{it} + \lambda_5 ESUP_{it} + \lambda_6 NEGE_{it} + \lambda_7 LOSS_{it} + e_{it}$$

| | | Model 2 OLS | Model 2 Fixed effects |
|---|---|---|---|
| **Variable** | **Predicted** | **Coefficient (t stats)** | **Coefficient (t stats)** |
| Constant | | 0.0110<br>(3.55)*** | 0.0133<br>(2.08)** |
| **REFORM** | **-ve** | **-0.0050**<br>**(-2.91)*** ** | **-0.0041**<br>**(-2.76)*** ** |
| MV | -ve | **Sig. -ve** | **Sig. -ve** |
| DAYS | +ve | 0.0012<br>(1.38) | 0.0002<br>(0.19) |
| ANA | -ve | **-0.0009**<br>**(-2.24)**** | 0.0003<br>(0.48) |
| ESUP | +ve | **0.0122**<br>**(1.96)*** | -0.0036<br>(-0.55) |
| NEGE | +ve | 0.0017<br>(0.99) | 0.0013<br>(0.79) |
| **LOSS** | **+ve** | **0.0130**<br>**(4.11)*** ** | **0.0077**<br>**(2.31)**** |
| Adjusted $R^2$ | | 0.251 | 0.623 |

# Informational Efficiency of Stock Prices

We compute the absolute cumulative abnormal return (ACAR) for each stock between days -10 to +10.




Abnormal Return (AR) = Actual Return – Expected Return

# Informational Efficiency of Stock Prices

Measurement of cumulative abnormal return (CAR)

- $CAR\ [-2, +3] = AR_{day-2} + AR_{day-1} + AR_{day0} + AR_{day+1} + AR_{day+2} + AR_{day+3}$
- ACAR [-2, +3] = Absolute value of CAR [-2, +3].
- A higher (lower) ACAR implies a larger (smaller) information gap.
- We expect lower ACARs should be observed in the post-reform period compared to the pre-reform period.

# Informational Efficiency of Stock Price

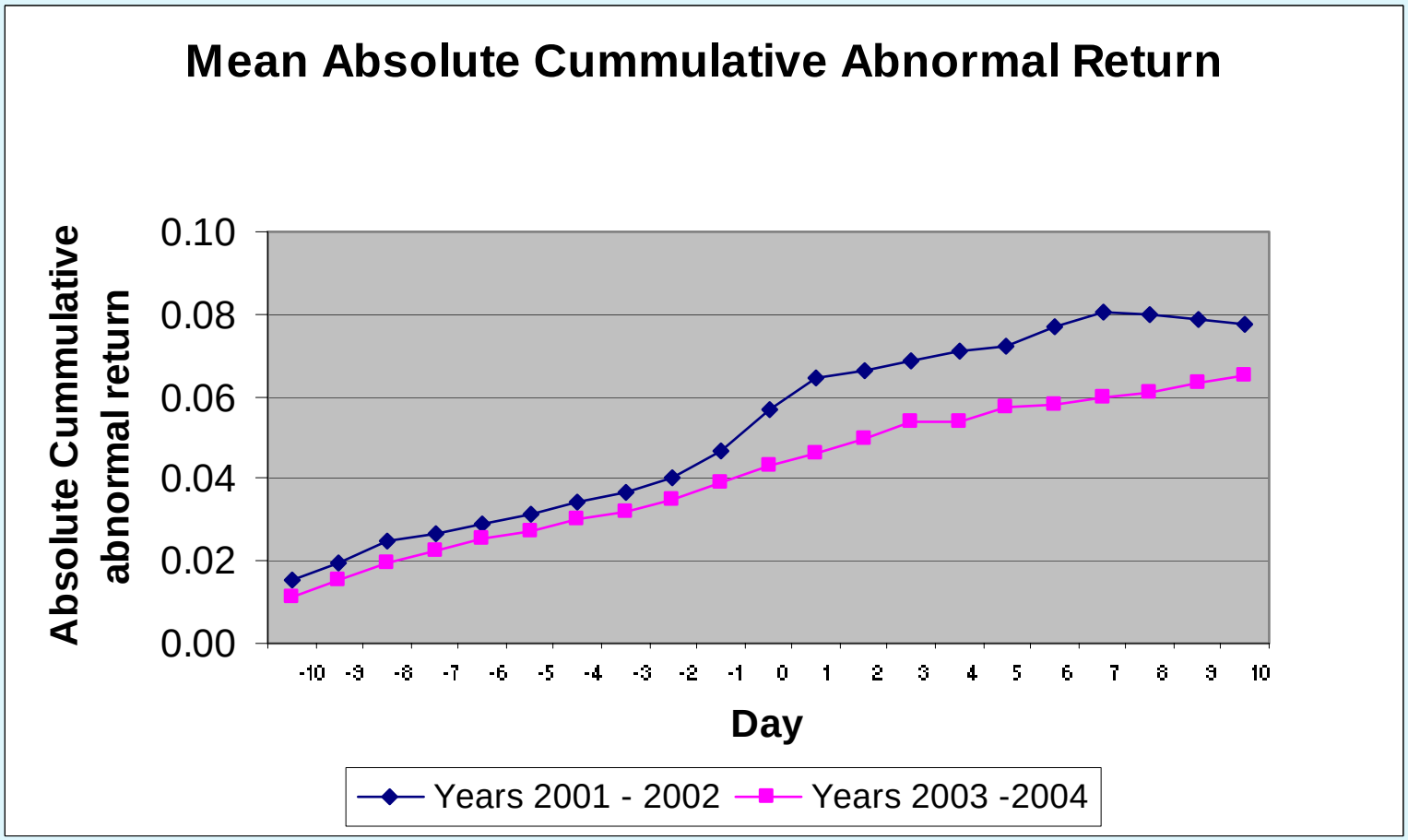


**Absolute Cumulative Abnormal Returns (ACAR)**
**Pre- and Post-reform Earnings Announcements**

| Event window period | ACAR [-2, +3] | | ACAR [-2,+4] | |
|---|---|---|---|---|
| | Mean | Median | Mean | Median |
| Pre-reform | 0.0584 | 0.0351 | 0.0583 | 0.0340 |
| Post-reform | 0.0415 | 0.0305 | 0.0430 | 0.0313 |
| Difference | -0.0169 | -0.0046 | -0.0153 | -0.0027 |
| p-value | **0.025** | 0.152 | **0.036** | 0.255 |

# Informational Efficiency of Stock Price

**Price Discovery Pre-reform v Post-reform**



# Cross-sectional analysis – cont.

$$ACAR_{i,t} = \alpha_{0,x} + \lambda_1 REFORM + \lambda_2 MB_{it} + \lambda_3 LEV_{it} + \lambda_4 MV_{it} + \lambda_5 ESUP_{it} + \lambda_6 LOSS_{it} + \lambda_7 NEGCAR_{it} + e_{i,t}$$

| Variable | Predicted sign | Definition |
|---|---|---|
| REFORM | -ve | Dummy variable = 1 if post-reform period, and 0 otherwise |
| MB | +ve | Market to book value of equity |
| LEV | +ve | Ratio of total liabilities to total assets |
| MV | -ve | Natural log of market cap |
| ESUP | +ve | Absolute value of the difference between the current year's EPS and last year's EPS at time t , divided by the price |
| LOSS | +ve | Equals 1 if reported profits are negative and 0 otherwise |
| NEGCAR | +ve | Equals 1 if the cumulative abnormal return over days -10 to -3 is negative, and 0 otherwise, |

# Informational Efficiency of Stock Price

**Regression of Absolute Cumulative Abnormal Returns on the REFORM Indicator and Control Variables**

$$ACAR_{i,t} = \alpha_{0,x} + \lambda_1 REFORM + \lambda_2 MB_{it} + \lambda_3 LEV_{it} + \lambda_4 MV_{it} + \lambda_5 ESUP_{it} + \lambda_6 LOSS_{it} + \lambda_7 NEGCAR_{it} + e_{i,t}$$

| **Event window period** | | **[-2,+3]** | | **[-2,+4]** | |
|---|---|---|---|---|---|
| **Variable** | **Predicted sign** | **OLS** | **Fixed effects** | **OLS** | **Fixed effects** |
| Intercept | | 0.0587<br>(3.81)*** | -0.0393<br>(-0.49) | 0.0690<br>(4.60)*** | 0.0532<br>(0.69) |
| **REFORM** | **-ve** | **-0.0156<br>(-2.17)**** | **-0.0153<br>(-2.28)**** | **-0.0142<br>(-2.03)**** | **-0.0128<br>(-2.00)**** |
| MB | +ve | -0.0016<br>(-1.69)* | -0.0010<br>(-0.49) | -0.0008<br>(-0.89) | 0.0019<br>(1.00) |
| LEV | +ve | 0.0298<br>(1.79)* | 0.0854<br>(1.93)* | 0.0215<br>(1.33) | 0.0600<br>(1.43) |
| MV | -ve | -0.0045<br>(-1.76)* | 0.0030<br>(0.27) | -0.0056<br>(-2.25)** | -0.0086<br>(-0.83) |
| ESUP | +ve | 0.0082<br>(1.51) | 0.0087<br>(1.38) | 0.0099<br>(1.87)* | 0.0088<br>(1.47) |
| LOSS | +ve | 0.0339<br>(2.95)*** | 0.0140<br>(1.03) | 0.0259<br>(2.32)** | 0.0067<br>(0.52) |
| **NEGCAR** | **+ve** | **0.0074<br>(2.08)**** | **0.0174<br>(2.30)**** | 0.0106<br>(1.48) | **0.0142<br>(1.97)**** |
| Adjusted $R^2$ | | 0.109 | | 0.092 | |
| F test for no fixed effects | | | 1.85*** | | 2.11*** |
| n | | 248 | 248 | 248 | 248 |

# Informational Efficiency of Stock Price

**Regression of Absolute Cumulative Abnormal Returns on the REFORM Indicator and Control Variables**

$$ACAR_{i,t} = \alpha_{0,x} + \lambda_1 REFORM + \lambda_2 MB_{it} + \lambda_3 LEV_{it} + \lambda_4 MV_{it} + \lambda_5 ESUP_{it} + \lambda_6 LOSS_{it} + \lambda_7 NEGCAR_{it} + e_{i,t}$$

| | | Small firms | | Large Firms | |
|---|---|---|---|---|---|
| **Event window period** | | **[-2,+3]** | | **[-2,+3]** | |
| **Variable** | **Predict sign** | **OLS** | **Fixed effects** | **OLS** | **Fixed effects** |
| Intercept | | 0.0801<br>(2.86)*** | 0.0951<br>(1.86)* | 0.0141<br>(0.43) | 0.1630<br>(1.03) |
| **REFORM** | **-ve** | **-0.0202**<br>**(-2.15)**** | **-0.0224**<br>**(-2.73)***** | -0.0106<br>(-0.95) | -0.0048<br>(-0.44) |
| MB | +ve | -0.0026<br>(-1.19) | -0.0037<br>(-1.56) | -0.0017<br>(-1.47) | 0.0029<br>(0.86) |
| LEV | +ve | 0.0075<br>(0.38) | -0.0057<br>(-0.10) | 0.0488<br>(1.53) | 0.1630<br>(2.42)** |
| MV | -ve | -0.0050<br>(-0.81) | 0.0164<br>(1.41) | 0.0001<br>(0.00) | -0.0343<br>(-1.54) |
| ESUP | +ve | 0.0062<br>(1.10) | 0.0099<br>(1.76)* | 0.0275<br>(1.29) | 0.0004<br>(0.02) |
| LOSS | +ve | 0.281<br>(1.92)* | 0.0024<br>(0.14) | 0.0288<br>(1.41) | 0.0434<br>(1.92)* |
| NEGCAR | +ve | 0.0129<br>(1.33) | 0.0186<br>(2.07)** | 0.0242<br>(1.49) | 0.0209<br>(1.73)* |
| Adjusted $R^2$ | | 0.073 | | 0.089 | |
| F test for no fixed effects | | | 2.68*** | | 1.61** |
| n | | 124 | 124 | 124 | 124 |

# CONCLUSIONS

Our results suggest the reforms were associated with an improvement in the flow of information to investors.

- No change in analysts' forecast errors but analyst forecast dispersion reduced.
- ACARs around the earnings announcement date event window periods are generally lower in the post-reform period; and
- Impact of the reforms with respect to information efficiency was greatest for small firms.

# BUT other impacts of the new disclosure rules ??

Commentators of the reform (Wilkinson, 2003: Gaynor, 2002, 2003) argued:

- The prohibition on selective disclosure practices would diminish the role that analysts play in ensuring that stocks are priced efficiently. Mohanram and Sunder (2006) – post Reg FD analysts reduce coverage of well followed firms.
- Investors would be inundated with a flood of information. This would result in larger price shocks and higher price volatility; and
- Significant problems in complying with the new disclosure rules.

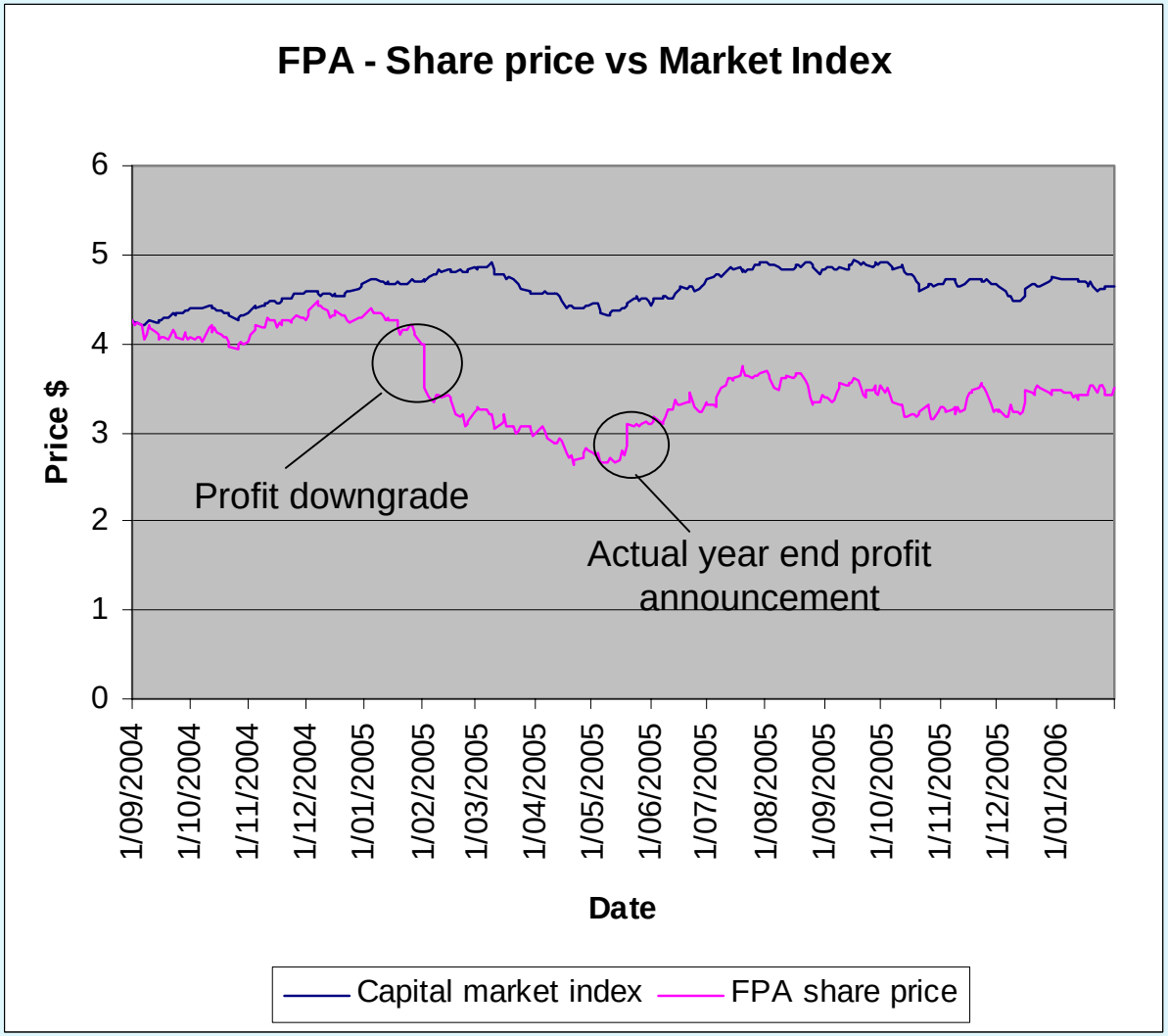
# Do the NZ disclosure rules increase share price volatility?



**Fisher and Paykel Appliances**

| Date | Closing Share Price | Announcement |
|---|---|---|
| 1 Feb 2005 | $3.99 | nil |
| 2 Feb 2005 | $3.50 | Profit downgrade. Y/E March 2005 profit between $63 to $68 million |
| 21 April 2005 | $2.63 | nil |
| 18 May 2005 | $2.75 | nil |
| 19 May 2005 | $2.86 | Actual year end 31 March 2005 profit equal to $68.56 million |
| 20 May 2005 | $3.10 | nil |

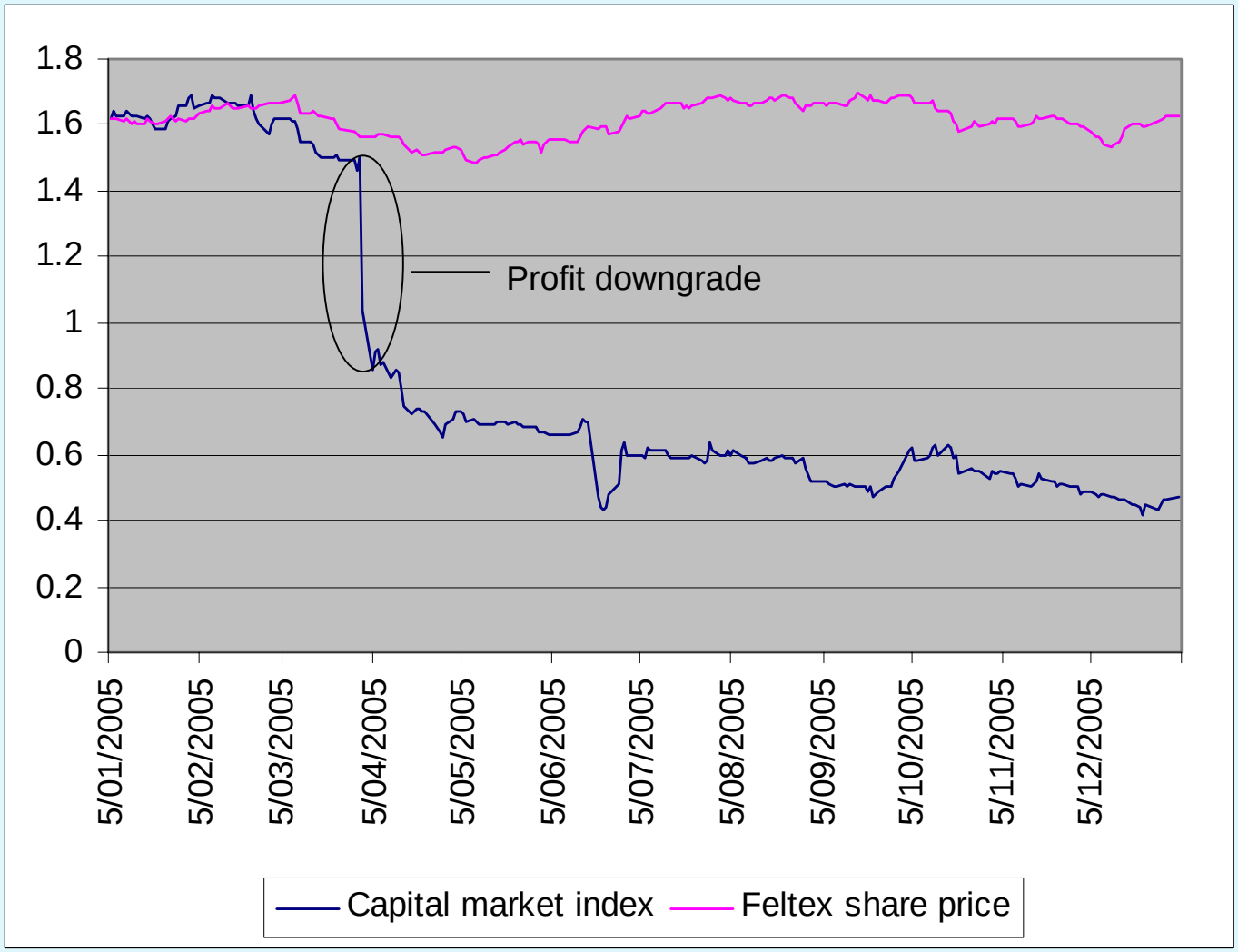
# Fisher and Paykel Appliances



# Feltex

| Date | Closing Share Price | Announcement |
|---|---|---|
| 22 Feb 2005 | $1.69 | nil |
| 23 Feb 2005 | $1.64 | Net surplus for 6 months ended Dec 2004 was $12.2 million. Despite the Group not meeting the projected sales and the likelihood of the continuing strong NZ dollar, EBITDA and net profit projections for the year remain achievable |
| 24 Feb 2005 | $1.62 | nil |
| 31 March 2005 | $1.50 | nil |
| 1 April 2005 | $1.04 | Sales for the full year are now projected to be between $295 million and $305 million. This is below the previous guidance provided in the interim report of between $310 million and $315 million.<br><br>Net profit after tax is now projected to be between $15 million and $16 million for the year ending 30 June 2005. This is between $8 million and $9 million less than the previous projection. |
| 4 April 2005 | $0.86 | nil |

# Feltex share price movements



# Does enhanced disclosure rules increase share price volatility?



Prior empirical research in other countries mixed. Why?

Lee and Liu (2006) argue stock prices and volatility influenced by "noise" and "information"

| | |
|---|---|
| More price information | Decrease in volatility since more information reduces noise or deviation from fundamental value. |
| More price information | Increases volatility since greater information flows leads to more "continuous" price changes. |

# Is the continuous disclosure regime likely to prevent informed traders earning abnormal profits?

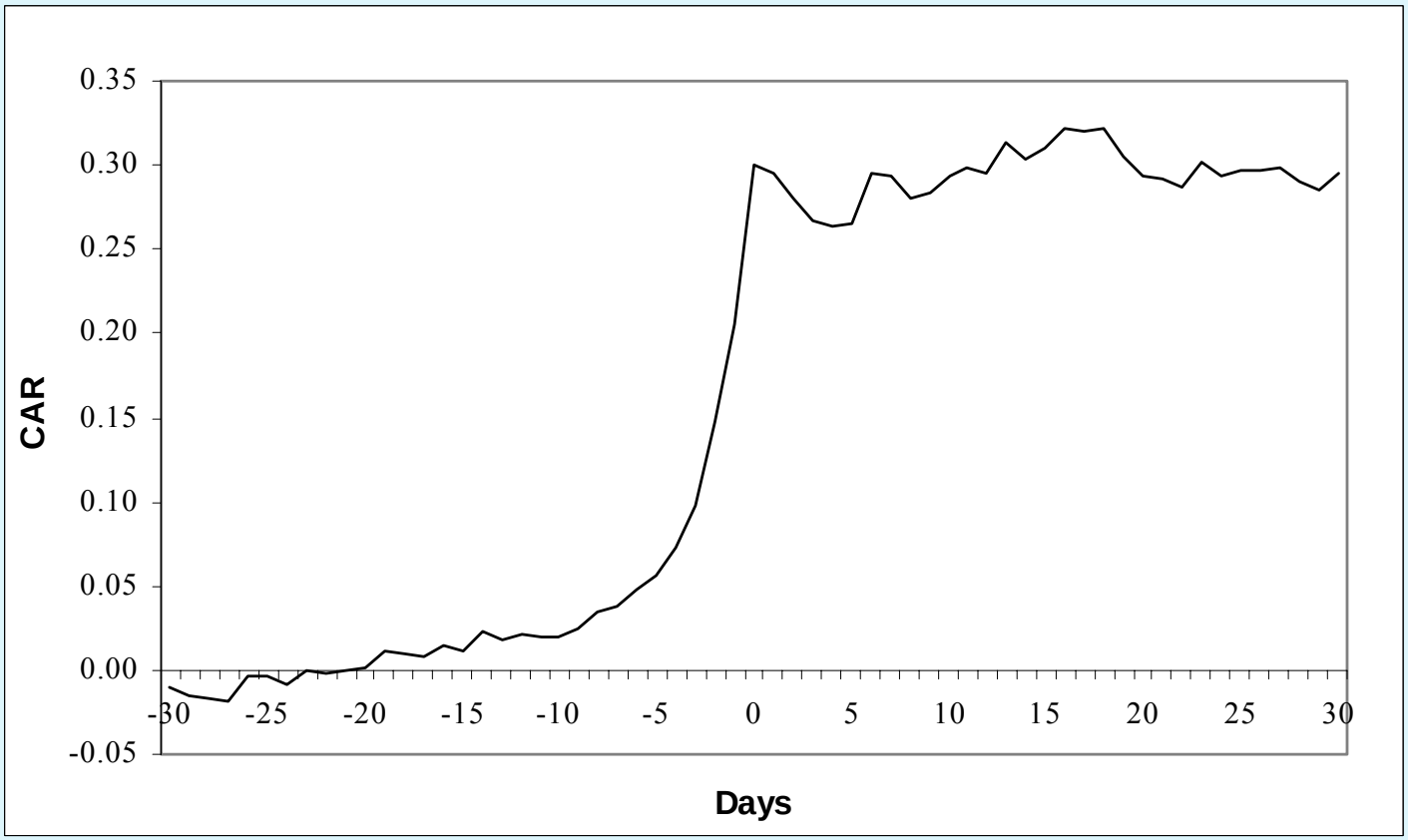
Marsden, Poskitt and Wang, 2006, An empirical analysis of the NZX's price query system.

We examine the price query system used by the NZX to monitor compliance with its continuous disclosure regime.

Do "unexplained" price movements detected by the NZX's surveillance systems reflect informed or speculative trading?

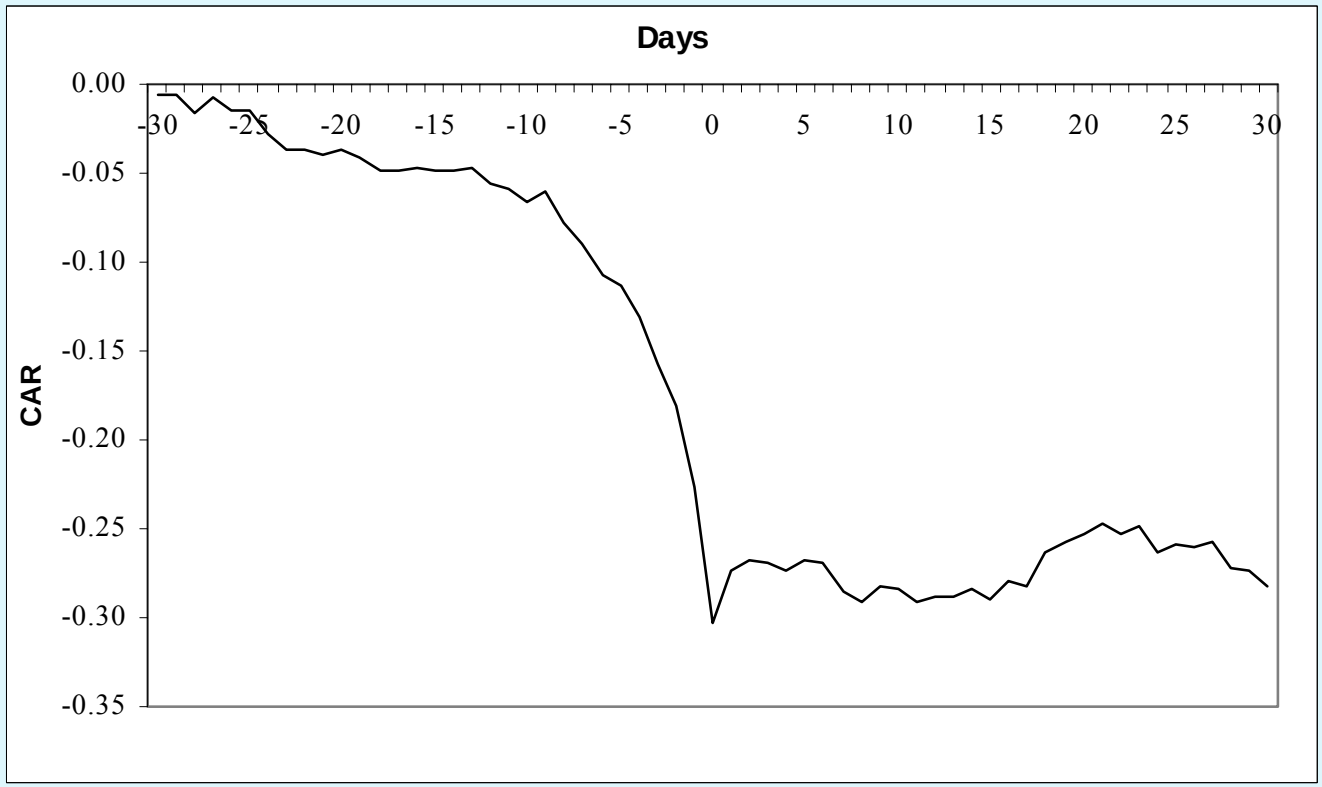
# Is the continuous disclosure regime likely to prevent informed traders earning abnormal profits?

Average cumulative abnormal returns (CARs) for companies that announced "no news" in response to a NZX query of a price increase. Day 0 is the date the price query was issued.



# Is the continuous disclosure regime likely to prevent informed traders earning abnormal profits?

Average cumulative abnormal returns (CARs) for companies that announced "no news" in response to a NZX query of a price decrease. Day 0 is the date the price query was issued.




We interpret the absence of a full reversal to indicate that prices are based on information-based trading rather than speculative trading.