

Rule 10b5-1 Trading Plan Disclosure Choice

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Abstract: Firms have the option to voluntarily disclose the existence of and details within insiders' Rule 10b5-1 trade plans. This study examines the determinants of disclosure and the association between disclosure and insiders' strategic trade behavior. We find evidence that voluntary disclosure is greater at firms with higher litigation risk and with higher insider strategic trade potential. We also find that insiders' trade returns are greater for firms disclosing plan participation, particularly at firms that disclose specific plan details. Disclosure firms' insiders' sales are associated with subsequent earnings news declines and other substantive negative news events. Collectively, this suggests that 10b5-1 voluntary disclosure may provide legal protection for strategic trade. It also suggests that non-disclosing firms are least associated with strategic trade; therefore an SEC disclosure mandate might not mitigate strategic activity within the Rule.

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Introduction

This study examines the determinants and implications of firms' decisions to disclose insiders' participation within Rule 10b5-1 trading plans. The October 2000 SEC-promulgated Rule enables insiders to diversify firm-specific holdings with reduced legal risk if they plan trades while not in possession of material nonpublic information. Despite an April 2002 proposal to mandate 8-K disclosure of insiders' participation in the Rule, the SEC currently does not require public reporting of insiders' trade plans.¹ Many firms, however, voluntarily disclose information regarding insiders' participation within Rule 10b5-1 trading plans.

There is evidence regarding the growth of 10b5-1 plans and the potential for strategic trade within 10b5-1 plans (Jagolinzer, 2008) that has garnered regulatory interest.^{2,3} What is still unclear, however, are what motivates firms' disclosure of 10b5-1 plan information, whether disclosure enhances insiders' ability to trade strategically, and whether investors impound information from observing plan participation and subsequent trade disclosures. Prior theoretical models predict that liquidity traders' trade preannouncements reduce adverse selection trading costs (Admati and Pfleiderer, 1991) and informed insiders' trade preannouncements induce informational trade costs (Hughes, Huddart, and Williams, 2004). There is no known prior empirical study regarding effects of insider trade preannouncements, however, prior studies empirically show that the preannouncement of other types of pending corporate equity transactions, such as

¹ SEC Release No. 33-8090, Proposed Rule: Form 8-K Disclosure of Certain Management Transactions.

² See Linda Chatman Thomsen, SEC Director, Division of Enforcement, Speech by SEC Staff: Remarks at the 2007 Corporate Counsel Institute, March 8 2007 and Opening Remarks Before the 15th Annual NASPP Conference, October 10, 2007.

³ An Equilar (2007) survey finds that executive 10b5-1 plan use grew in 2006 to 29% across Fortune 500 firms.

repurchases (e.g., Vermaelen, 1981, Comment and Jarrell, 1991, Lie, 2005) and seasoned equity offerings (e.g., Asquith and Mullins, 1986), are associated with positive and negative investor response, respectively.

In the context of Rule 10b5-1 trading plans, we investigate firms' incentives to preannounce insiders' trades and the implications of that choice. Specifically, we investigate whether the voluntary disclosure decision is associated with firms' incentives to reduce their litigation risk and insiders' ability to engage in strategic trade. More importantly, we also investigate whether the disclosure of the existence and specificity of 10b5-1 plan participation may afford insiders greater opportunity to engage in strategic trade. Public disclosure of participation by firm insiders in 10b5-1 plans serves as a deterrent to potential litigants, since public disclosure increases a firm's probability of winning a "motion to dismiss" phase of litigation. Disclosure, then, may provide legal protection when insiders anticipate strategic trade, which seems inconsistent with the SEC's intent for the Rule.

To examine the implications of disclosure, we first estimate a logistic regression of the choice to disclose 10b5-1 participation between 2001 and 2006. Results indicate that Rule 10b5-1 disclosure is positively associated with firms' ex ante litigation risk and with insiders' strategic trade potential. This suggests that firms and insiders infer litigation benefits from disclosure. Results also indicate that disclosure probability is increasing in institutional ownership, particularly when insiders' strategic trade potential is high. This suggests that outside investors prefer disclosure, perhaps for better monitoring, to enhance insiders' trade plan commitment, to enhance the firm's overall litigation protection, or to infer private information from insiders. Finally, results indicate that disclosure probability

is increasing in the proportion of officers serving as board directors, only when insiders' strategic trade potential is high. This suggests that insiders prefer disclosure to enhance legal protection when they anticipate a rich strategic trade environment.

We then estimate abnormal trade returns associated with voluntary disclosure specificity. Results indicate that insiders' abnormal trade returns are higher for disclosing firms, especially for firms disclosing specific plan details. This suggests that insiders may expect enhanced disclosure of 10b5-1 plan participation to provide greater legal protection if trades are later inferred to be strategic.

We also assess the association between disclosed 10b5-1 transactions and firm news events to discern whether fundamental economic events underlie the observed trade returns patterns. We find that disclosure firms' insider sales are associated with subsequent earnings news declines and other substantive negative news events. This indicates that return patterns likely reflect fundamental economic shifts rather than investors' response to 10b5-1 disclosure signals. For further support, we estimate the investor response to disclosure of 10b5-1 trading plan initiations and to disclosure of actual trades made within 10b5-1 plans. We do not find evidence that investors respond negatively to plan initiation or trade execution disclosures, perhaps due to trade frictions, investor uncertainty, estimation misspecification, or low power.

These findings have implications regarding Rule 10b5-1 governance. First, courts might more carefully consider whether 10b5-1 disclosure mitigates scienter, since strategic trade patterns appear more in firms with enhanced disclosure. Second, firms should consider whether specific disclosure reduces or enhances insiders' strategic trade potential. Specific disclosure likely reduces the value to insiders' early plan termination option since

the disclosure allows for ex post revelation of the exercise of the termination option. Specific disclosure, however, may enhance the value of other strategic trade options, such as planning trade in anticipation of longer-term negative news, since specific disclosure may increase the likelihood of early legal case dismissal. Finally, the SEC should consider that a mandate to disclose 10b5-1 participation might not mitigate strategic trade within the Rule. If evidence in this study is reflective of Rule 10b5-1 use, then firms that currently do not disclose participation (i.e., those most apt to be affected by a disclosure mandate) are likely those that already have the lowest potential for insiders' strategic trade.

The study proceeds as follows. Section 1 provides background information regarding Rule 10b5-1 and outlines expectations regarding disclosure choice determinants and implications. Section 2 outlines sample selection procedures. Section 3 outlines empirical tests and results. Finally, section 4 summarizes results and discusses potential governance implications.

1. Rule 10b5-1 background, disclosure choice, and disclosure implications

1.1. Rule 10b5-1 background

U.S. corporate insiders face legal risk (both civil and criminal) when trading their firms' securities because they frequently possess material nonpublic (or "inside") information about pending future firm performance and it is generally unlawful to trade without first disclosing this information.⁴

⁴ See Bainbridge (2000) for a detailed discussion regarding insider trading law.

The SEC promulgated Rule 10b5-1 in October, 2000, in part, to provide a vehicle through which insiders could more readily diversify their firm-specific holdings.⁵ The Rule provides an affirmative defense that reduces trade-related litigation risk for insiders who enter into trade plans when they do not possess material nonpublic information. This affirmative defense allows more trade flexibility because it absolves insiders from having to cancel pre-planned trades or disclose subsequently obtained material nonpublic information before pre-planned trades execute.

Rule 10b5-1's guidance suggests that regulators expect uninformed diversification trade from insiders' trade plans. Specifically, the Rule applies if the insider can show that "before becoming aware of the information" the insider: (1) "entered into a binding contract to purchase or sell the security; instructed another person to purchase or sell the security for the [insider's] account, or adopted a written plan for trading securities"; (2) put in the plan ". . . the amount of securities to be purchased or sold and the price at which and the date on which the securities were to be purchased or sold; . . . a written formula or algorithm . . . for determining the amount of securities to be purchased or sold and the price at which and the date on which the securities were to be purchased or sold; or [did] not permit the [insider] to exercise any subsequent influence over [transactions]"; and (3) did not "alter[] or deviate[] from the contract, instruction, or plan to purchase or sell securities (whether by changing the amount, price, or timing of the purchase or sale), or enter[] into

⁵ Linda Chatman Thomsen, SEC Director, Division of Enforcement stated recently that "the idea [of Rule 10b5-1] was to give executives opportunities to diversify or become more liquid through the use of plans with prearranged trades without facing the prospect of an insider trading investigation." (Speech by SEC Staff: Opening Remarks Before the 15th Annual NASPP Conference, October 10, 2007).

or altered a corresponding or hedging transaction or position with respect to those securities.”⁶

There is evidence, however, that Rule 10b5-1 may provide insiders with strategic trade opportunities that generate abnormal trade returns.⁷ Insiders may, for example, pre-plan trade based on longer-term nonpublic information because of perceived lower legal risk.⁸ Insiders may also strategically modify the content or timing of disclosure to increase profitability of previously planned trades.⁹ Finally, insiders may also terminate Rule 10b5-1 plans when they possess material nonpublic information that indicates that a hold strategy would be more profitable than allowing pre-planned sales to continue.¹⁰ Jagolinzer (2008) shows that insiders’ 10b5-1 sales are, on average, associated with declines in future firm performance, suggesting there is some strategic behavior within Rule 10b5-1.

1.2. Disclosure choice

In April, 2002, The SEC proposed mandatory disclosure, through 8-K filings, of insiders’ use of Rule 10b5-1 trading plans.¹¹ Specifically, the proposal suggested disclosure of the name and title of the director or executive officer, the date on which the

⁶ 17 CFR § 240.10b5-1(c)(1)(C).

⁷ This contrasts the affect of other insider trade regulation and case law that has been shown to mitigate the degree to which insiders’ time strategic trade [Seyhun (1992) and Garfinkel (1997)].

⁸ Insiders may perceive lower legal risk when initiating plans while in possession of long term nonpublic information because the possession standard is applied at the plan initiation date. It is likely more difficult for plaintiffs to demonstrate possession as the distance grows between the plan initiation date and the information revelation date.

⁹ Aboody and Kasznik (2000) provide evidence that disclosures are strategically timed to minimize new option grant strike prices.

¹⁰ Abstaining from trade while in possession of material nonpublic information is not deemed unlawful [see Fried (2003) for a policy discussion]. Therefore, terminating a plan while in possession of material nonpublic information is not deemed unlawful [SEC Division of Corporation Finance, Manual of Publicly Available Telephone Interpretations, Fourth Supplement, Rule 10b5-1, Question 15 (issued May 2001)]. The argument is based on a limit in the statute that fraud be “in connection with the purchase or sale of a security,” and since there is neither when a plan is terminated, there is no securities fraud. The SEC did suggest, however, that early plan termination might raise questions about the good faith of the plan.

¹¹ SEC Release No. 33-8090, Proposed Rule: Form 8-K Disclosure of Certain Management Transactions.

director or executive officer entered into the 10b5-1 plan, and a description of the contract, including duration, the aggregate number of securities to be purchased or sold, and the name of the counterparty or agent. The proposal also suggested disclosure if the director or executive officer later terminated or modified a plan.¹² The proposal was tabled indefinitely, so there is currently no requirement for firms or insiders to provide detail regarding whether or how they participate within their trading plans. Many firms, however, choose to disclose information regarding insiders' trade plans and there is substantive variation in disclosure detail regarding insiders' trade plan structures. These disclosure choices are inherently interesting because they potentially offer insight into firms' and insiders' utilization of the Rule.

Firms likely disclose Rule 10b5-1 details to reduce legal risk. The affirmative defense provides some risk reduction without disclosure; however, disclosure can further enhance legal protection by increasing the likelihood of early dismissal for securities class action suits. Private class action suits represent a major component of firms' overall legal risk. If sued, firms face potentially large defense and settlement costs.¹³ Since class action lawsuits can be "won" or "lost" at the motion to dismiss phase of litigation, firms have incentives to utilize methods, such as 10b5-1 disclosure, that enhance the likelihood of dismissal.

¹² Specifically, firms would disclose the date of the termination or modification and a description of the modification, including duration, the aggregate number of securities to be purchased or sold, the interval at which securities are to be purchased or sold, the number of securities to be purchased or sold in each interval, the price at which securities are to be purchased or sold, and the identity of the counterparty or agent.

¹³ "[C]ompanies are paying the legal costs of...executives defending themselves against fraud allegations. The amount of money being paid...totals hundreds of millions, or even billions of dollars. A company's average cost of defending against shareholder suits last year was \$2.2 million according to Tillinghast-Towers Perrin." Laurie P. Cohen, "Adding Insult to Injury: Firms Pay Wrongdoers' Legal Fees", *The Wall Street Journal*, February 17, 2004. Average firm settlements are approximately \$30 million per suit. More than ten suits settled between \$300 million and \$6 billion in 2005 alone (PWC 2005; Buckberg 2005).

To dismiss suits involving insider trading allegations, firms may present evidence of Rule 10b5-1 trading plans as an affirmative defense. At the motion to dismiss phase, however, only previously disclosed plans are admissible because courts do not consider materials other than the plaintiff's pleadings when considering the motion, and defendants are not typically allowed to rebut factual allegations.¹⁴ Courts may, however, consider publicly available documents that are not a part of the complaint, for example, taking judicial notice of SEC filings, prospectuses, analysts' reports, and other publicly reported data.¹⁵ Therefore, a publicly disclosed 10b5-1 plan has a greater likelihood of influencing a motion to dismiss than a plan that is not publicly disclosed.¹⁶ This view is shared by corporate advisors. For example, Institutional Shareholder Services, the largest proxy advising firm for institutional shareholders, concludes, "such plans should be filed in some form with the SEC so that [they] . . . can be considered at the motion to dismiss stage."¹⁷ Lawyers advising firms on securities fraud litigation matters also think disclosure is a prerequisite to risk reduction: "[t]he adoption of the Rule 10b5-1 trading plans . . . should

¹⁴ See, e.g., *Weiner v. Klais & Co.*, 108 F.3d 86, 88-89 (6th Cir.1997).

¹⁵ See, e.g., *In re Royal Appliance Sec. Litig.*, 1995 WL 490131, at *2 (6th Cir. Aug.15, 1995).

¹⁶ Precedent cases suggest that disclosure is needed to mount a defense at the motion to dismiss stage. For example, *Fener v. Belo Corp.* 425 F.Supp.2d 788 (N.D. Tex. 2006) notes that plaintiffs have an obligation to address in their complaint whether a trading plan was in effect, and if so, "why . . . this does not undercut a strong inference of scienter." *Friedman v. Rayovac Corp.*, 291 F. Supp. 2d 845 (W.D. Wis. 2003) notes that it would generally not consider the trading plan or any other document appended to the motion to dismiss, but it would in this case since the plan was "publicly available on the SEC's website and was filed as an exhibit to numerous reports Rayovac filed with the SEC." *In re Netflix, Inc. Sec. Litig.*, 2005 WL 1562858 (N.D. Cal. June 28, 2005) and *Weitschner v. Monterey Pasta Company*, 2003 WL 22889372, No. C 03-0632 (N.D. Cal. Nov. 4, 2003) the courts consider publicly disclosed trading plans at the motion to dismiss stage to find no strong inference of scienter. *S.E.C. v. Healthsouth Corp.*, 261 F.Supp.2d 1298, 1322-3 (N.D. Ala., 2003) notes the existence and disclosure of a trading plan to rebut the SEC's allegations of the requisite scienter for securities fraud.

¹⁷ See White, T., "More on Trading Plans/Restrictions and Motions to Dismiss: Monterey Pasta Co. and Rayovac Corp." November 24, 2003, RiskMetrics Group, available at http://slw.riskmetrics.com/2003/11/more_on_trading_plansrestricti.html (last visited April 7, 2008).

be publicly disclosed” to reduce the risk of litigation (Roberts and Porritt, 2004; Siegel and Lenahan, 2002).¹⁸

Since courts consider publicly available data at the motion to dismiss phase, the degree of disclosed detail regarding insiders’ Rule 10b5-1 plans likely impacts the probability of dismissal. If only the existence of a plan is disclosed, a court may not have sufficient detail to ascertain whether the insider sufficiently complied with the Rule and whether the allegedly fraudulent trades are covered by an existing plan. If the full plan details are disclosed, a court may better ascertain whether the allegedly fraudulent trades fall within the Rule’s affirmative defense, thereby increasing the probability of a low-cost dismissal.

The preceding discussion suggests that firms and insiders likely obtain litigation benefits from Rule 10b5-1 plan disclosures, and that the benefits are increasing in the specificity of the public disclosures. If so, then one would expect firms with greater ex ante litigation risk to be more apt to disclose the existence and details of Rule 10b5-1 plans.

Insiders bear costs to 10b5-1 disclosures, however, if investors infer a price relevant signal from disclosure or if disclosure enhances investors’ monitoring of insiders’ trade plan commitment. If investors infer a price relevant signal from disclosure then disclosure may induce investor front-running, which can reduce insiders’ pending trade profitability (Huddart, Hughes, and Williams, 2004).¹⁹ If disclosure provides investors with insiders’ 10b5-1 plan details, then it allows for ex post reconciliation of plan commitment. Reconciliation would entail matching data reported in insiders’ transaction reports (e.g.,

¹⁸ “While public disclosure of a trading plan is not required, such disclosure often helps to minimize the market impact and negative implications of insider sales.” (Siegel & Lenahan, 2002).

¹⁹ Counselors and financial advisors suggested in interviews that front-running concerns factored into the decision to not disclose or to disclose little detail regarding 10b5-1 participation.

SEC Form 4), with details provided with 10b5-1 disclosures. Reconciliation could reveal insiders' use of the strategic early plan termination option, potentially increasing regulatory scrutiny of insiders' good faith compliance with the Rule.²⁰ Therefore, specific disclosure reduces insiders' value of the early termination option. *Ceteris paribus*, then, insiders should generally not prefer disclosure; therefore disclosure probability should be lower when insiders have more firm control.

Insiders infer 10b5-1 disclosure benefits, however, if they perceive that disclosure provides incremental litigation protection for strategic trade. If this is the case, then insiders' preference for disclosure should be increasing with their strategic trade potential. In models of insiders' strategic trade (e.g., Kyle 1985; Huddart and Ke 2007), insiders' information advantage is determined by: (1) prior stock price variance and (2) the precision of insiders' private information. Specifically, low investor uncertainty—i.e., low prior stock price variance—provides little scope for profitable insider trade, even if the insider possesses perfect private information. For a given level of private information, then, insiders' strategic trade potential is increasing in prior stock price variance. If insiders infer that disclosure provides litigation protection benefits regarding potential strategic trade then disclosure probability should be greater when insiders have more firm control and there is higher investor uncertainty.²¹

Outside shareholders might infer 10b5-1 disclosure benefits if disclosure provides for better monitoring of or greater insider commitment to disclosed trade plans. Outside

²⁰ The SEC states that “[t]ermination of a plan, or the cancellation of one or more plan transactions, could affect the availability of the Rule 10b5-1(c) defense for prior plan transactions [SEC Division of Corporation Finance, Manual of Publicly Available Telephone Interpretations, Fourth Supplement, Rule 10b5-1, Question 15(b) (issued May 2001)].”

²¹ Disclosure probability should also be greater when insiders have more precise private information. We cannot empirically test this prediction since insiders' private information about pending performance is unobservable.

shareholders might also infer disclosure benefits if disclosure provides a signal regarding insiders' private information, and provides firm-level litigation protection if insiders trade strategically. These benefits likely increase when insiders have greater strategic trade potential, since governance is likely more relevant, insiders' signals are likely more informative, and firm-level litigation risk is likely greater. If this is the case, then disclosure probability should be greater with high outside investor firm control and should be even greater when investors concurrently have more uncertainty—i.e., when prior stock price variance is high.

1.3. Disclosure implications

1.3.1. Realized trade and firm performance

If the probability of Rule 10b5-1 disclosure is increasing in insiders' strategic trade potential, then disclosure should be associated with greater observed strategic trade. Strategic trade can be inferred ex post from an association between insiders' sales transactions and subsequent declines in fundamental economic and returns performance. Further, if strategic trade litigation protection is increasing in disclosure specificity, then the degree of observed strategic trade should also increase with disclosure specificity.

Consider, for example, three disclosure groups: non-disclosure, limited disclosure, and specific disclosure. The non-disclosure group likely represents firms that infer low litigation, monitoring, plan commitment, or information signal benefits from disclosure because insiders have low strategic trade potential. If this is the case, then this group is likely not associated with strategic trade. The limited disclosure group likely represents firms that infer some litigation, monitoring, plan commitment, or information signal benefits from disclosure because insiders have some strategic trade potential. This group

would likely contain, for example, insiders who possess less precise private information and therefore place greater value in the strategic early termination option. Limited disclosure affords some legal protection, yet still retains the early termination option since ex post reconciliation is not feasible.²² If this is the case, then this group is likely associated with modest strategic trade. The specific disclosure group likely represents firms that infer substantive litigation, monitoring, plan commitment, or information signal benefits from disclosure because insiders have high strategic trade potential. This group would likely contain, for example, insiders who possess more precise private information and are therefore less concerned with foregoing the strategic early termination option. If this is the case, then this group is likely associated with the greatest degree of strategic trade.

1.3.2. Investors' disclosure response

If disclosure is associated with insiders' strategic trade potential, then disclosure may provide a price relevant signal to investors. Investors may respond negatively to limited disclosures regarding 10b5-1 participation, for example, if they infer that insiders have some strategic trade potential for which they seek litigation protection. Investors may choose to delay their response to limited disclosure, however, if they recognize that the participation disclosure implies that insiders' private information has low precision. Investors may choose, instead, to respond when insiders update their private information signal with a subsequent sale (Lie, 2005). Similarly, investors should respond negatively to specific disclosures regarding 10b5-1 participation, if they infer that insiders have high strategic trade potential for which they seek high litigation protection.

²² Since limited disclosure does not provide sufficient plan detail, one cannot infer, ex post, whether an absence of trade results from early termination, non-execution due to failure to meet limit orders, or natural plan termination.

2. Sample

The sample of participation disclosures are collected from keyword searches for variants of the expression “10b5-1” through 8-K filings, business wire reports, and press releases between October 2000 and December 2006.²³ This keyword search nets 773 firm observations. Additional disclosure observations are collected from keyword searches for variants of the expression “10b5-1” through SEC Form 4 filings between October 2000 and December 2006.²⁴ This keyword search nets an additional 894 firm observations. Estimation samples are further constrained by the availability of price and returns data from CRSP, insider transaction data from Thomson Financial, institutional ownership data from CDA/Spectrum, governance data from Equilar, and earnings performance data from Compustat.

Sample disclosures of 10b5-1 plan participation are categorized by each author into limited or specific partitions. If the disclosure delineates the specific terms underlying the plan, the disclosure is classified as specific. Figure 1, Panel A provides one example of a disclosure that is classified as specific. If the disclosure does not delineate the specific terms underlying the plan, the disclosure is categorized as limited. Figure 1, Panel B provides two examples of disclosures that are classified as limited. All Form 4 disclosures are classified as limited since they generally state that a particular transaction is Rule 10b5-

²³ Commonly reported variants of the keyword expression include “10-b-5-1” and “10b5-1(c)”.

²⁴ The SEC mandated electronic Form 4 filings as of June 30, 2003. Unlike previously reported paper filings (which are available electronically as image scans), the electronic filings enable global keyword searches. As a result, a substantive proportion of the Form 4-generated sample comes from the period subsequent to June 2003.

1 compliant, yet provide no specific details regarding the underlying plan.²⁵ This classification procedure yields 94 specific and 1,573 limited firm observations that are further constrained for estimation by data availability.

Some analyses require identifying a sample of firms where insiders' participation in Rule 10b5-1 is not disclosed.²⁶ The non-disclosure sample is inferred from firms where there is no Rule 10b5-1 participation disclosure and where insiders execute sales transactions within thirty-calendar-day periods that precede quarterly earnings announcements. This inference relies on the assumption that most firms generally blackout insiders' trades before earnings announcements, yet allow Rule 10b5-1 transactions to bypass blackout restrictions.^{27, 28}

3. Empirical Analyses

We are interested in better understanding the determinants and implications of voluntary disclosure of 10b5-1 plan participation. Our empirical tests, therefore, analyze

²⁵ Form 4 disclosures may provide different inferences than other participation disclosures since they follow trades made within 10b5-1 plans. Form 4 disclosures are similar to other limited disclosures, however, in that they convey that an insider has initiated a plan and that the insider is likely to execute further trade within the plan.

²⁶ Jagolinzer (2008) corroborates the existence of firms that choose to not disclose 10b5-1 plan participation, through a survey of nearly 2,700 Nasdaq firms. Nearly 18% of the 378 respondent firms report that they had at least one insider participate within Rule 10b5-1 between October 2000 and December 2002, yet the firm chose to not disclose this information.

²⁷ Jagolinzer, Larcker, and Taylor (2008) report that, from their sample of firm-specific insider trading policies, the average blackout window preceding earnings announcements is 45.81 days. Bettis, Coles, and Lemmon (2000) show that fewer than 15% of sample firms authorize insiders' trades in the 30 days that precede earnings announcements.

²⁸ At least two errors can occur from this inference algorithm. The first is that the non-disclosure sample does not include firms where insiders participate but their transactions are not realized within short proximity to earnings announcements. The second is that the sample includes firms where insiders do not participate but their transactions are authorized within short proximity to earnings either because the firm does not constrain trade during these windows or because the firm authorizes alternative blackout waivers (e.g., Jagolinzer, Larcker, and Taylor (2008) report that some firms authorize the general counsel to grant blackout window waivers). Approximately 19% of the inferred non-disclosure sample shows evidence of insiders' sales transactions within thirty-day windows preceding earnings during the year 2000, before Rule 10b5-1 promulgation. This is consistent with alternative blackout waivers. Results are not sensitive to excluding these observations.

firms' decisions to voluntarily disclose participation in 10b5-1 plans, the association between voluntary disclosure and subsequent firm returns and earnings performance, and investors' response to disclosure.

3.1. Disclosure choice

Our first empirical analysis investigates whether the voluntary disclosure of 10b5-1 plan participation is more prevalent for firms with high litigation risk and with high potential for insiders' strategic trade. We investigate firms' decisions to disclose participation within Rule 10b5-1 trading plans using the following logistic regression model:

$$\Pr(Disc1 = 1) = \alpha_0 + \alpha_1 LitRisk + \alpha_2 InstitOwn + \alpha_3 InsideDirs + \alpha_4 Volat + \alpha_5 [Volat * InstitOwn] + \alpha_6 [Volat * InsideDirs] + \varepsilon \quad (1)$$

where *Discl* is a dichotomous variable that equals one if the firm discloses Rule 10b5-1 participation details, and zero otherwise; *LitRisk* is the firm's expected class action litigation probability estimated in the year prior to 10b5-1 participation disclosure;²⁹ *InstitOwn* is the percentage of institutional firm ownership (CDA/Spectrum) in the year prior to disclosure; *InsideDirs* is the ratio of officer directors to total board directors in the

²⁹ Specifically, *LitRisk* is estimated from the following annual cross-sectional logistic regression (similar to Rogers and Stocken, 2005): $Pr(DMGPD = 1) = \alpha_0 + \alpha_1 MinReturn + \alpha_2 StdDevReturn + \alpha_3 Turnover + \alpha_4 MVE + \alpha_5 BHReturn + \alpha_6 Beta + \alpha_7 BiotechInd + \alpha_8 CompHWInd + \alpha_9 CompSWInd + \alpha_{10} ElecInd + \alpha_{11} RetailInd + \varepsilon$, where *DMGPD* equals one if the fiscal year falls within an alleged class action damage period (data provided by Woodruff Sawyer and Co.) and equals zero otherwise; *MinReturn* is the minimum single day firm return during the fiscal year; *StdDevReturn* is the standard deviation of daily returns during the fiscal year; *Turnover* is the average daily trade volume scaled by shares outstanding during the fiscal year; *MVE* is the average market value of equity during the fiscal year; *BHReturn* is the prior fiscal year's buy and hold return; *Beta* is the firm's beta coefficient from a regression of daily firm returns on daily market returns; and *BiotechInd*, *CompHWInd*, *CompSWInd*, *ElecInd*, and *RetailInd* are dichotomous variables that equal one if the firm represents the biotechnology, computer hardware, computer software, electric, or retail industries, and equal zero otherwise. For descriptive purposes, pooled estimated coefficients and *z*-statistics are *MinReturn* (coeff = -4.24, *z* = -10.78), *StdDevReturn* (coeff = -16.56, *z* = -5.97), *Turnover* (coeff = 6.42, *z* = 6.67), *MVE* (coeff = -0.01, *z* = -1.02), *BHReturn* (coeff = 0.00, *z* = 1.15), *Beta* (coeff = 0.67, *z* = 14.36), *BiotechInd* (coeff = 0.80, *z* = 5.44), *CompHWInd* (coeff = 0.75, *z* = 3.39), *CompSWInd* (coeff = 0.61, *z* = 4.37), *ElecInd* (coeff = 0.22, *z* = 1.29), and *RetailInd* (coeff = 0.57, *z* = 3.03).

year prior to disclosure (*Equilar*); and *Volat* is the standard deviation of residuals from a regression of firm daily returns on the daily returns to the value-weighted CRSP portfolio in the year prior to disclosure (CRSP).

If firms expect the net benefit from disclosure to be increasing in the expected litigation risk then the coefficient for *LitRisk* should be positive. If outside investors expect monitoring, plan commitment, litigation, or information signaling benefits from disclosure then the coefficient for *InstitOwn* should be positive. If insiders expect front-running or plan commitment costs from disclosure then the coefficient for *InsideDirs* should be negative. If firms, insiders, and outside investors expect higher litigation risk benefits from disclosure when insiders' strategic trade potential is greater then the coefficients for *Volat*, [*Volat * InstitOwn*], and [*Volat * InsideDirs*] should be positive.

Equation (1) is estimated using disclosure observations, both specific and limited, where the fiscal year is the first year in which disclosure is observed between 2001 and 2006, and non-disclosure observations where the fiscal year is the first year in which inferred Rule 10b5-1 participation is observed between 2001 and 2006. We estimate equation (1) using two specifications. The first is a logistic regression that includes all firm-year observations, which compares the disclosure firms against all non-disclosure firms in the initial plan adoption year. In this specification, we include industry and year fixed effects to control for prevailing industry and market conditions. The second is a conditional logistic that includes each disclosure observation and a matched non-disclosure observation from the same fiscal year, 2-digit industry code, and with the closest market value of equity. This specification potentially reduces the power of the tests, however, it

better controls for industry and size related factors that might be associated with disclosure choice.

The first two panels of Table 1 report descriptive statistics for the determinants of voluntary disclosure of 10b5-1 participation. Panel B, which reports univariate statistics within disclosure groups, provides evidence that voluntary disclosure of plan participation is more common for high litigation risk firms. Specifically, average *LitRisk* is relatively greater for both the specific and limited firms than for the non-disclosure firms (difference = 0.009 and 0.007, *t*-statistics = 4.37 and 12.00, respectively). Panel B also provides evidence that voluntary disclosure of plan participation is more common for high stock price volatility firms. Specifically, average *Volat* is relatively greater for both the specific and limited firms than for the non-disclosure firms (difference = 0.011 and 0.002, *t*-statistics = 4.98 and 4.09, respectively). In addition, average *Volat* is relatively greater for the specific firms than the limited firms (difference = 0.009, *t*-statistic = 3.86).

The logistic and conditional logistic estimation results are presented in Panel C of Table 1.³⁰ Consistent with evidence reported in Panel B, the results indicate that higher litigation risk firms are associated with greater disclosure probability of 10b5-1 plan participation (*LitRisk* coeffs. = 10.009 and 10.471; *z*-statistics = 3.31 and 2.88). The results also indicate that firms with higher insider strategic trade potential are more likely to disclose 10b5-1 participation (*Volat* coeffs. = 22.189 and 25.143; *z*-statistics = 5.17 and 4.45). This suggests that firms with higher litigation risk expect benefits from disclosure. The results also indicate that firms with higher institutional ownership are more likely to disclose 10b5-1 plan participation (*InstitOwn* coeffs. = 1.228 and 0.969; *z*-statistics = 5.63

³⁰*Volat*, *InstitOwn* and *InsideDirs* are recentered to their average values (i.e., the average of each variable has been subtracted from each variable) to provide interpretation of the main effects at their average value.

and 3.94) and that this association is stronger when there is higher insider strategic trade potential ($Volat * InstitOwn$ coeffs. = 47.975 and 33.789; z -statistics = 4.33 and 2.42). This suggests that institutional investors infer disclosure-related monitoring, plan commitment, information signaling, or legal protection benefits. Results also indicate that officers prefer disclosure only when there is higher insider strategic trade potential ($Volat * InsideDirs$ coeffs. = 31.625 and 29.043; z -statistics = 2.13 and 1.69). This suggests that insiders prefer greater disclosure to mitigate litigation risk regarding potential strategic trade.

3.2. Realized trade and subsequent performance

3.2.1. Returns performance

The next analyses investigate whether Rule 10b5-1 plan participation disclosure is associated with realized strategic trade by insiders. Figure 2 plots the cumulative abnormal return relative to the timing of insiders' sales that are executed after the first disclosure of insiders' participation within the Rule. Returns analyses focus exclusively on insiders' sales transactions since sales comprise nearly all transactions executed within Rule 10b5-1 (Jagolinzer, 2008) and because there are no specific disclosure observations associated with pending insider purchases. Specifically, Figure 2 cumulates the market adjusted firm returns (daily firm return – the daily return to the value-weighted CRSP portfolio) from day – 30 to day + 30 relative to each sales transaction (executed on day 0) during the one-year period that follows the insider's first participation disclosure.³¹ For non-disclosure firms, a

³¹ For all non-disclosure and most limited disclosure observations, it is not possible to discern the length of 10b5-1 plans. A typical disclosed plan length is 12 months, so we assume that trades made within 12 months following plan disclosure are pursuant to the Rule. Misclassification of observed trades likely induces noise to inferences regarding the association between trades and performance.

first-pseudo-disclosure date is identified as the sixtieth calendar day that precedes the first observed within-blackout-window transaction.³²

Figure 2, Panel A shows that sales trades that follow specific disclosure are associated with positive market-adjusted returns preceding the transaction and negative market-adjusted returns subsequent to the transaction. Relatedly, Figure 2, Panel B shows that sales trades that follow limited disclosure are also associated with positive market-adjusted returns preceding the transaction and negative market-adjusted returns subsequent to the transaction. Finally, Figure 2, Panel C shows that sales trades that follow non-disclosure are associated with positive market-adjusted returns preceding the transaction. However, these transactions do not appear to be associated with negative subsequent market-adjusted returns. A comparison of post-trade returns slopes across Figure 2 panels suggests that the degree to which sales transactions are associated with negative performance is increasing in Rule 10b5-1 disclosure specificity.

To more formally test the association between trade returns and disclosure specificity, Table 2, Panel B presents univariate comparisons of abnormal trade returns across disclosure partitions. Specifically, Table 2 reports insider-specific dollar-weighted average buy-and-hold abnormal trade returns for each insider's sales transactions that execute during the year that follows disclosure.³³ Consistent with evidence reported in Figure 2, Table 2 Panel B indicates that post-trade abnormal returns become more negative

³² For disclosure firms (excluding Form 4 disclosures), the average number of days between disclosure and the first observed trade is 53. The median number of days is 17. Results are not sensitive to denoting the first-pseudo-disclosure date as the thirtieth calendar day that precedes the first observed within-blackout-window transaction.

³³ Weighted average abnormal returns are computed as $\frac{\sum_{j=1}^J \text{DollarVol}_j (BHR_w - VWBHR_w)_j}{\sum_{j=1}^J \text{DollarVol}_j}$, where

DollarVol is the trade dollar volume, *BHR_w* is the trade's *w*-month buy and hold return, *VWBHR_w* is the *w*-month buy and hold return to the CRSP value-weighted portfolio, and *j* is a subscript for each trade executed.

as disclosure of participation becomes more specific. For example, Panel B shows that the average six-month post-trade abnormal return is -12.3% , -5.6% , and -0.3% (t -statistics = -2.91 , -13.56 , and -1.00) for specific, limited, and non-disclosed trades, respectively.

To control for other factors that might explain differences in post-trade returns, Table 3 provides evidence from a calendar-month portfolio estimation of monthly returns regressed on factors known to explain monthly returns (Fama and French, 1993; Carhart, 1997). Our approach follows the portfolio estimation method suggested by Mitchell and Stafford (2000), to control for potential contemporaneous cross-sectional correlation. Specifically, within each disclosure category, monthly portfolios are formed between January 2001 and July 2007 if a 10b5-1 sales transaction is observed in the preceding calendar month. For each calendar month in which at least three firms are available to form a portfolio, the following regression is estimated:

$$(R_{port} - R_f) = \beta_0 + \beta_1 (R_m - R_f) + \beta_2 SMB + \beta_3 HML + \beta_4 UMD + u \quad (2)$$

where R_{port} is the equally-weighted monthly portfolio return, R_f is the one-month treasury bill rate, R_m is the value-weighted monthly market return, and SMB , HML , and UMD are the monthly small-minus-big, high-minus-low, and momentum factors that explain monthly stock returns (Fama and French, 1993; Carhart, 1997).

Consistent with evidence presented in Figure 2 and Table 2, results from Table 3 indicate that more specific 10b5-1 plan disclosures are associated with more negative post-trade abnormal returns. Specifically, abnormal returns to the non-disclosure portfolio (0.001 , t -statistic = 0.46) from column 1 of Table 3 are not statistically negative. Abnormal returns to the limited-disclosure portfolio (-0.010 , t -statistic = -2.25) from column 2 of

Table 3, however, are statistically negative. Abnormal returns to the specific-disclosure portfolio (-0.047 , t -statistic = -2.94) from column 3 are also statistically negative. Finally, column 4 of Table 3 indicates that post-trade abnormal returns are statistically more negative as disclosure becomes more specific. Formal tests comparing portfolio returns indicate that post-trade abnormal returns are statistically more negative for the limited-disclosure portfolio relative to the non-disclosure portfolio (-0.010 , t -statistic = -1.86), for the specific-disclosure portfolio relative to the non-disclosure portfolio (-0.041 , t -statistic = -4.08), and for the specific-disclosure portfolio relative to the limited-disclosure portfolio (-0.031 , t -statistic = -3.04).

We also present results using a firm-level calendar-time regression for robustness. The Mitchell and Stafford (2000) portfolio method can result in relatively low power tests due to observation aggregation at the month portfolio level (see Loughran and Ritter (2000), Mitchell and Stafford (2000), and Cheng, Nagar, and Rajan (2007) for a discussion). Following Cheng, Nagar and Rajan (2007), the following regression model is estimated:

$$\begin{aligned} (R_j - R_m) = & \delta_0 + \delta_1 None + \delta_2 Limited + \delta_3 Specific + \delta_4 Ln(BTM) \\ & + \delta_5 PriorReturn + \delta_6 PriorVolatility + z \end{aligned} \quad (3)$$

where R_j is the monthly firm return, R_m is the equal-weighted or value-weighted monthly CRSP portfolio market return, *None* is a dichotomous variable that equals one during the month following a non-disclosed inferred Rule 10b5-1 sales transaction and equals zero otherwise, *Limited* is a dichotomous variable that equals one during the month following a limited-disclosed Rule 10b5-1 sales transaction and equals zero otherwise, *Specific* is a dichotomous variable that equals one during the month following a specific-disclosed Rule

10b5-1 sales transaction and equals zero otherwise, *BTM* is the book-to-market ratio measured at the end of the previous month, *PriorReturn* is the buy-and-hold firm return over the preceding 12 months, and *PriorVolatility* is the standard deviation of monthly stock returns over the preceding 36 months. We control for common events within industries using 2-digit industry code fixed effects. We also control for potential dependency in firm returns within months through the use of month-clustered standard errors (Gow, Ormazabal, and Taylor, 2008).

Consistent with earlier results, Table 4 provides evidence that the association between sales transactions and subsequent negative performance is increasing in disclosure specificity, after controlling for other factors that are associated with firm returns. Specifically, when the dependent variable equals the equal-weighted-market adjusted firm monthly return, results indicate that abnormal returns following trade months are 1.2%, 1.6% and 4.3% lower than returns in other months for non-, limited-, and specific-disclosure firms, respectively. When the dependent variable equals the value-weighted-market adjusted firm monthly return, results indicate that abnormal returns following trade months are 1.1%, 2.1% and 4.3% lower than returns in other months for non-, limited-, and specific-disclosure firms, respectively. Formal tests indicate that post-trade abnormal returns are generally statistically more negative as disclosure specificity increases.

3.2.2. Earnings and price relevant news

To better understand what may economically underlie the association between disclosed Rule 10b5-1 trades and subsequent return performance, Table 5 presents results regarding investors' response to releases of earnings news, both before and after the first observed trades that follow voluntary Rule 10b5-1 disclosures. Specifically, Table 5

reports three-day market adjusted returns, centered on the quarterly announcement date (*RDQE* from Compustat), for the four quarters that precede and that follow the quarter in which the first insider trade is observed following disclosure. Returns are adjusted by subtracting the same period return to the value-weighted CRSP portfolio.

Table 5 provides evidence of positive earnings announcement surprises for the four quarters prior to insiders' first sales for firms providing limited and specific disclosure (pooled *t*-statistics = 5.57 and 2.24, respectively). This evidence is consistent with positive earnings performance relative to investors' expectations prior to insiders' sales. Table 5 also provides some evidence of negative earnings announcement surprises for the four quarters following insiders' first sales for firms providing limited disclosure (pooled *t*-statistic = -2.23). This evidence is consistent with overall negative earnings performance shifts from the period before to after insiders' sales. Evidence for firms providing specific disclosure indicates a similar decline in earnings performance across the periods, however, there is no evidence of negative post-sales earnings performance perhaps because of low power or because specific disclosure trades are associated with price relevant events that may not be impounded in short-term earnings. To explore this further, we analyze whether specific disclosures are associated with subsequent news events that may not be impounded in short-term earnings. We find that approximately 25% of the specific disclosure sample exhibits a single news event, not related to earnings, for which the three-day market adjusted return falls between -10% and -75%, within an average 140 calendar days of disclosure.³⁴ We also find that approximately 33% of the remaining specific disclosure

³⁴ News event examples include exchange-imposed stock trade suspension, drug trial failure, and announcement of the intent to acquire another firm.

sample exhibit sustained returns declines (between –20% and –80%), for which there is no obvious associated information event, during the 180 calendar days that follow disclosure.

Collectively, this evidence suggests that Rule 10b5-1 trades tend to be associated with fundamental firm economic shifts. This mitigates the likelihood that observed returns patterns result from investors' response to 10b5-1 trade signals.

3.2.3. Investors' response to 10b5-1 disclosure

We assess whether investors respond to 10b5-1 disclosure by estimating three day market-adjusted returns centered on the initial participation disclosure date and on the subsequent report date for the first trade execution. We market-adjust returns by subtracting the same period return to the value-weighted CRSP portfolio. Table 6 provides evidence regarding returns to initial participation disclosures (*Announcement*) and to first transaction disclosures (*Transaction*), which represent the transactions' Form 4 SEC reporting date (Thomson Financial). Results do not indicate that investors respond negatively to 10b5-1 disclosure or the disclosure of first trades executed within 10b5-1. The lack of negative investor response to 10b5-1 disclosures may indicate that there are frictions to implementing strategies based on 10b5-1 disclosure signals or that investors' do not understand 10b5-1 disclosure implications, which is possible if our sample period reflects the transition period regarding 10b5-1 use.³⁵ It may also indicate that the reported estimation method is misspecified or has low power.

4. Conclusions

³⁵ Anecdotally, some regulators, legal counselors, and institutional investors have noted that they have only recently begun to understand the implications of Rule 10b5-1. Some have noted that their understanding has improved with the increasing availability of historical data.

This study examines the determinants and implications of firms' voluntary choice to disclose Rule 10b5-1 participation. Since the Rule may provide for strategic insider trade and there is no mandate to disclose insiders' participation, exploring these questions should better inform investors and regulators regarding insiders' utilization of the Rule, which has garnered recent attention.

Evidence suggests that participation disclosure is increasing in firm litigation risk and in insiders' strategic trade potential. This suggests that firms and insiders infer legal benefits from disclosure. Evidence also suggests that insiders' disclosed 10b5-1 trade is associated with fundamental firm economic shifts that relate to significant declines in returns performance. Results further show that post-trade declines in returns performance are increasing in disclosure specificity. Collectively, this suggests that 10b5-1 disclosure may provide legal protection for strategic trade.

Several governance implications may be drawn from these results. First, courts might more carefully consider whether 10b5-1 disclosure mitigates scienter, since strategic trade patterns appear more in firms with enhanced disclosure. Second, firms should consider whether specific disclosure reduces or enhances insiders' strategic trade options. In some cases, it may reduce the value insiders' options since it allows for ex post revelation of early plan termination. However, it may enhance the value of other options, such as planning trade in anticipation of longer-term negative news, since specific disclosure may increase the likelihood of early legal case dismissal. Finally, the SEC should consider that a mandate to disclose 10b5-1 participation might not mitigate strategic trade within the Rule. If evidence in this study is reflective of Rule 10b5-1 use, then firms

that currently do not disclose participation (i.e., those most apt to be affected by a disclosure mandate) are likely those that already have the lowest potential strategic trade.

References

- Admati, A. R., and P. Pfleiderer 1991. Sunshine Trading and Financial Market Equilibrium. *Review of Financial Studies* (4) 443-480.
- Alexander, J.C. 1996. Rethinking Damages in Securities Class Actions. *Stanford Law Rev.* (48) 1487-1499.
- Asquith, P. and D. W. Mullins, Jr. 1986. Equity Issues and Offering Dilution. *Journal of Financial Economics* (15) 61-89.
- Bainbridge, S. M. 2000. Insider Trading. *Encycl. Law & Econ.* (3) 772-812.
- Bettis, J. C., J. L. Coles, and M. L. Lemmon, 2000. Corporate policies restricting trading by insiders. *J. Financial Econ.* (57) 191-220.
- Carhart, M. M. 1997. On Persistence in Mutual Fund Performance. *J. Finance* (52) 57.
- Cheng, S., V. Nagar, and M. V. Rajan 2007. Insider Trades and Private Information: The Special Case of Delayed-Disclosure Trades. *Review of Financial Studies* (20) 1833-1864.
- Conover, W. J. 1999. Practical Nonparametric Statistics. New York.
- Dunbar, F. C., T. S. Foster, V. M. Juneja, and D. M. Martin 1995. Recent Trends III: What Explains Settlements in Shareholder Class Actions? (National Economic Research Associates, Inc.).
- Fama, E. F., K. R. French. 1993. Common Risk Factors in the Returns on Stocks and Bonds. *J. Financial Econ.* (33) 3.
- Fried, J. M. 2003. Insider Abstention. *Yale Law Journal* (13) 455.
- Garfinkel, J. A. 1997. New Evidence on the Effects of Federal Regulations on Insider Trading: The Insider Trading and Securities Fraud Enforcement Act (ITSFEA). *Journal of Corporate Fin.* (3) 89.
- Gow, I. D., G. Ormazabal, and D. J. Taylor 2008. Correcting for Cross-Sectional and Time-Series Dependence in Accounting Research, Stanford Graduate School of Business working paper.
- Huddart, S., J. S. Hughes, and M. Williams 2004. Pre-Announcement of Insiders' Trades, working paper, the Pennsylvania State University.
- Huddart, S., B. Ke 2007. Information Asymmetry and Cross-sectional Variation in Insider Trading. *Contemporary Accounting Research* (24) 195-232.

Jagolinzer, A. D. 2008. SEC Rule 10b5-1 and Insiders' Strategic Trade. Working Paper, Stanford Graduate School of Business.

Jagolinzer, A. D., D. F. Larcker, and D. J. Taylor, 2008. The Impact of the General Counsel in Corporate Governance. Working Paper, Stanford Graduate School of Business.

Kyle, A. S. 1985. Continuous Auctions and Insider Trading. *Econometrica* (53) 1315-1335.

Loughran, T., and J. Ritter, 2000. Uniformly Least Powerful Tests of Market Efficiency. *Journal of Financial Economics* 55: 361-89.

Miller, R. I., Foster, T., and E. Buckberg (2006). NERA Economic Consulting: Recent Trends in Shareholder Class Action Litigation: Beyond the Mega-Settlements, is Stabilization Ahead?

Mitchell, M., and E. Stafford. 2000. Managerial Decisions and Long-Term Stock Price Performance. *Journal of Business* 73: 287-329.

Roberts, L., and Porritt, N., 2004. Individual Trading Plans Can Help Defend Securities Fraud Claims. *Compliance Week*.

Rogers, J. L. and P. C. Stocken, 2005. Credibility of Management Forecasts. *Accounting Review* 80: 1233-1260.

Seyhun, H. 1992. Why Does Aggregate Insider Trading Predict Future Stock Returns? *Quarterly Journal of Economics* 107: 1303-31.

Siegel, B. J. and K. Lenahan, 2002. Rule 10b5-1 Trading Plans: Planned Liquidity for Insiders. *Technology Times*.

Vermaelen, T. 1981. Common Stock Repurchases and Market Signalling, an Empirical Study. *Journal of Financial Economics* (9) 139-183.

Figure 1
Example 10b5-1 Plan Disclosures

Panel A: Specific

Excerpts from PepsiAmericas Inc. Form 8-K, Filed March 3, 2005

Keiser Trading Plan

On February 28, 2005, we acknowledged the entry by Kenneth E. Keiser, a “named executive officer” as such term is defined in Item 402(a)(3) of Regulation S-K, into a Rule 10b5-1 trading plan with Fidelity Brokerage Services LLC. Pursuant to the trading plan, Mr. Keiser has agreed to exercise certain in-the-money stock options and sell the shares received upon such exercise at a price not less than \$20.50 per share. From March 2005 through December 2005, the trading plan covers the option exercise and disposition of 15,000 shares per month, for a total disposition of 150,000 shares.

The trading plan, which appears as Exhibit 10.2 to this report, is incorporated by reference in response to this Item 1.01.

ATTACHMENT A

STOCK OPTION SHARES TO BE SOLD (HELD)

Option Grant Date	Option Exercise Price	Number of Options to Exercise	Number of Shares to Be Sold	Number of Shares to Be Held	Earliest Possible Sale Date	Type of Order (Market/Limit)	Time in Force (Day/Date Range/GTC)	Limit Price (if any)
12-10-98	\$ 13.09	15,000	15,000		3-1-05	Limit	3-1-05 to 3-31-05	\$ 20.50
12-10-98	\$ 13.09	15,000	15,000		4-1-05	Limit	4-1-05 to 4-30-05	\$ 20.50
12-10-98	\$ 13.09	15,000	15,000		5-1-05	Limit	5-1-05 to 5-31-05	\$ 20.50
12-10-98	\$ 13.09	6,301	6,301		6-1-05	Limit	6-1-05 to 6-30-05	\$ 20.50
1-20-00	\$ 12.17	5,578	5,578		6-1-05	Limit	6-1-05 to 6-30-05	\$ 20.50
1-19-01	\$ 14.5313	3,121	3,121		6-1-05	Limit	6-1-05 to 6-30-05	\$ 20.50
1-19-01	\$ 14.5313	15,000	15,000		7-1-05	Limit	7-1-05 to 7-31-05	\$ 20.50
1-19-01	\$ 14.5313	15,000	15,000		8-1-05	Limit	8-1-05 to 8-31-05	\$ 20.50
1-19-01	\$ 14.5313	15,000	15,000		9-1-05	Limit	9-1-05 to 9-30-05	\$ 20.50
1-19-01	\$ 14.5313	15,000	15,000		10-1-05	Limit	10-1-05 to 10-31-05	\$ 20.50
1-19-01	\$ 14.5313	13,879	13,879		11-1-05	Limit	11-1-05 to 11-30-05	\$ 20.50
2-21-02	\$ 12.68	1,121	1,121		11-1-05	Limit	11-1-05 to 11-30-05	\$ 20.50
2-21-02	\$ 12.68	15,000	15,000		12-1-05	Limit	12-1-05 to 12-31-05	\$ 20.50

Figure 1 (continued) Example 10b5-1 Plan Disclosures

Panel B: Limited

Excerpt from Ariba Inc. Form 8-K, Filed June 16, 2006

Item 8.01. Other Events.

On June 13 and June 14, 2006, certain executive officers of Ariba, Inc. ("Ariba") entered into written sales plans intended to comply with the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934 (the "Sales Plans"). Specifically, Robert Calderoni, Ariba's Chairman and Chief Executive Officer, Kevin Costello, Ariba's Executive Vice President and Chief Commercial Officer, James Frankola, Ariba's Executive Vice President and Chief Financial Officer, and Kent Parker, Ariba's Executive Vice President and General Manager, Ariba Global Services Organization, each entered into a Sales Plan intended to be in effect through July 2007, and Tayloe Stansbury, Ariba's Executive Vice President of Engineering, entered into a Sales Plan intended to be in effect until June 2009.

Under Rule 10b5-1, a company's directors and officers and other persons who are not in possession of material nonpublic information regarding the company may adopt a pre-arranged plan or contract for the sale of company securities under specified conditions and at specified times. As sales are executed in the future under the Sales Plans, they will be reported in accordance with federal securities laws. Using the Sales Plans, insiders can gradually diversify their investment portfolios while avoiding concerns about transactions occurring at a time when they might possess material nonpublic information.

Excerpt from Build-A-Bear Workshop Inc. Form 8-K, Filed August 3, 2005

Item 8.01. Other Events.

Build-A-Bear Workshop, Inc. (the "Company") has been advised that (1) Maxine Clark, Chairman, Board of Directors and Chief Executive Bear, (2) Barry Erdos, Director, President and Chief Operating Officer Bear, (3) James Gould, Director, (4) Tina Klocke, Chief Financial Bear, Treasurer and Secretary, (5) Teresa Kroll, Chief Marketing Bear, and (6) Scott Seay, Chief Workshop Bear, have entered into Rule 10b5-1 trading plans (each, a "Plan" and collectively, the "Plans") to sell shares of the Company's common stock, including upon the exercise of certain options.

Shares may be sold under the Plans at any time that the Company's stock attains certain pre-arranged minimum prices (as set forth in the Plans). Such sales may take place beginning as early as September 1, 2005, and ending with the termination dates of the respective Plans as follows: Ms. Kroll's Plan terminates on June 30, 2006, unless earlier terminated in accordance with the terms of her Plan. Mr. Gould's Plan terminates on February 1, 2006, unless earlier terminated in accordance with the terms of his Plan. Ms. Klocke's Plan terminates on December 29, 2006, unless earlier terminated in accordance with the terms of her Plan. The Plans of Mr. Erdos and Mr. Seay terminate on December 31, 2006, unless earlier terminated in accordance with the terms of their respective Plans. Ms. Clark's Plan terminates on December 31, 2007, unless earlier terminated in accordance with the terms of her Plan.

The participants in the Plans will have no control over the timing of any sales under their respective Plans and there can be no assurance that the shares covered by the Plans actually will be sold. The participants entered into the Plans in order to diversify their respective financial holdings.

The total number of shares and/or options potentially available for sale under all Plans other than that of Ms. Clark is less than 300,000.

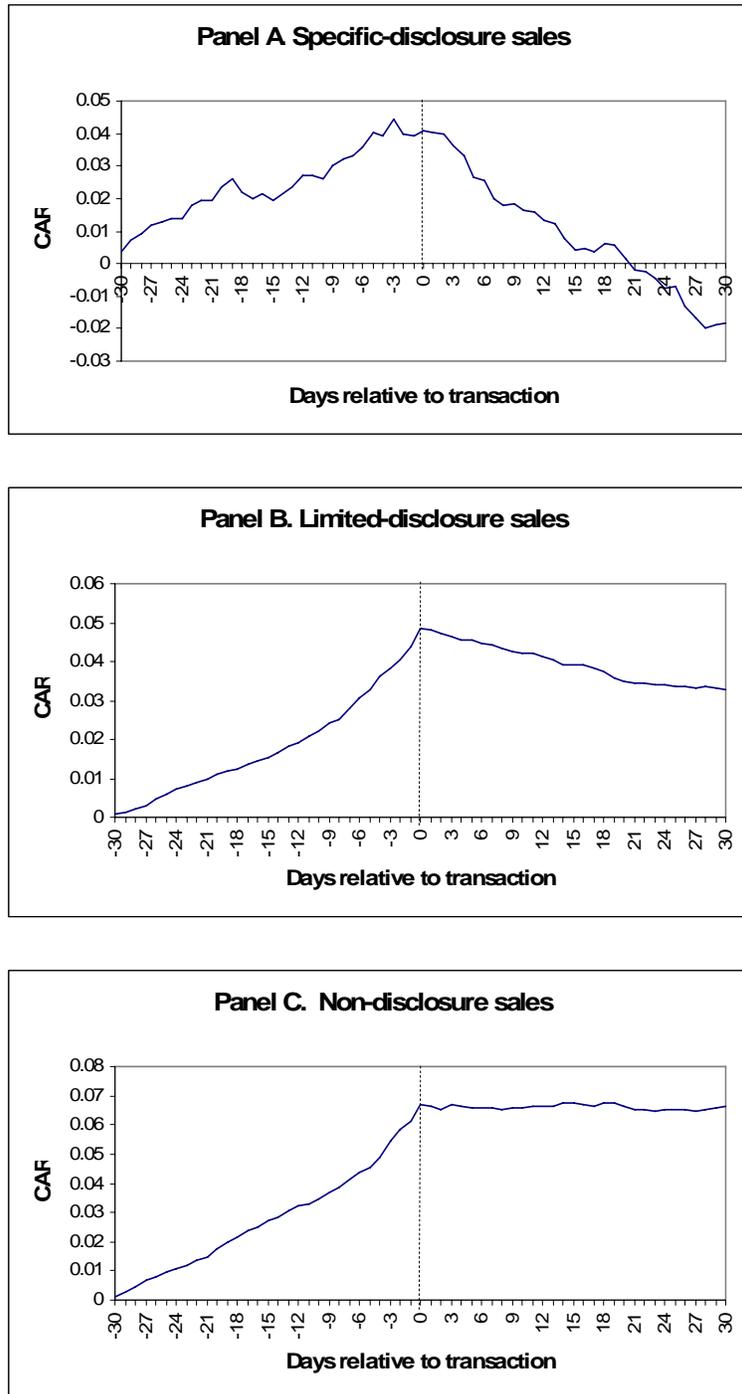
Ms. Clark currently owns 3,657,744 shares (including vested options). Ms. Clark's Plan permits no more than a maximum of 7% of her current share holdings (including vested options) to be sold per year (in each of 2005, 2006, and 2007). Accordingly, Ms. Clark will continue to have a significant ownership interest in the Company.

The Plans are intended to comply with Rule 10b5-1 of the Securities Exchange Act of 1934, as amended, and the Company's insider trading policy. Rule 10b5-1 allows corporate insiders to establish prearranged written plans to buy or sell a specified number of shares of a company stock over a set period of time. The specified number of shares sold may be determined pursuant to a formula or may be at the discretion of a third party, so long as such person is not aware of material non-public information. Among other things, the Company's insider trading policy allows insiders to implement a written trading plan provided such person is not in possession of material non-public information about the Company at the time the plan is entered into, consistent with Rule 10b5-1. The Plans were established during an "open window" under the Company's insider trading policy.

Except as may be required by law, the Company does not undertake to report written trading plans established by other Company officers or directors, nor to report modifications, terminations, transactions or other activities under the Plans or the plan of any other officer or director.

Actual sales made pursuant to the Plans will be disclosed publicly through Form 4 and Form 144 filings with the Securities and Exchange Commission.

Figure 2
Cumulative abnormal return relative to sales transactions



This figure plots the average cumulative abnormal return relative to insiders' sales transactions within Rule 10b5-1. Each firm's cumulative abnormal return is computed as $CAR_t = \sum_{d=-30}^t (R_f - R_{VWCRSP})_d$, where R_f is the firm's daily return, R_{VWCRSP} is the daily return to the CRSP value weighted portfolio, and t denotes a specific day relative to the transaction date. Trade-day observations = 1,108 specific, 23,040 limited, and 20,818 non-disclosure.

Table 1
Disclosure of 10b5-1 plan participation determinants

Panel A: Summary statistics						
Variable	Mean	Std. Dev.	25%	50%	75%	
<i>LitRisk</i>	0.014	0.017	0.006	0.009	0.015	
<i>InsideDirs</i>	0.363	0.167	0.242	0.353	0.460	
<i>InstitOwn</i>	0.497	0.272	0.263	0.521	0.727	
<i>Volat</i>	0.029	0.017	0.017	0.024	0.036	

Panel B. Statistics by disclosure type						
Variable	<i>None</i>	<i>Lim</i>	<i>Spc</i>	<i>Spc - None</i>	<i>Lim - None</i>	<i>Spc - Lim</i>
	Mean	Mean	Mean	Mean	Mean	Mean
				(<i>t</i> -stat)	(<i>t</i> -stat)	(<i>t</i> -stat)
<i>LitRisk</i>	0.013	0.020	0.022	0.009 (4.37)	0.007 (12.00)	0.002 (0.85)
<i>InsideDirs</i>	0.366	0.354	0.372	0.006 (0.30)	-0.012 (-2.09)	0.018 (0.83)
<i>InstitOwn</i>	0.472	0.583	0.532	0.060 (1.62)	0.111 (11.80)	-0.051 (-1.40)
<i>Volat</i>	0.027	0.029	0.038	0.011 (4.98)	0.002 (4.09)	0.009 (3.86)

Table 1 continued
Disclosure of 10b5-1 plan participation determinants

Panel C: Logistic regression			
Variable	<i>Exp. Sign</i>	Full Sample	Matched Sample
		<i>Pr(Discl = 1)</i>	
		<i>Coeff.</i> (<i>z-stat</i>)	<i>Coeff.</i> (<i>z-stat</i>)
<i>LitRisk</i>	+	10.009 (3.31)	10.471 (2.88)
<i>InstitOwn</i>	+	1.228 (5.63)	0.969 (3.94)
<i>InsideDirs</i>	-	-0.214 (-0.68)	-0.337 (-1.11)
<i>Volat</i>	+	22.189 (5.17)	25.143 (4.45)
<i>Volat * InstitOwn</i>	+	47.975 (4.33)	33.789 (2.42)
<i>Volat * InsideDirs</i>	+	31.625 (2.13)	29.043 (1.69)
Fixed Effects		Industry, Year	Match-pair
Num obs <i>None</i>		3,652	1,078
Num obs <i>Spc</i>		57	57
Num obs <i>Lim</i>		1,055	1,021
Pseudo R^2		0.211	0.049

This table provides summary statistics (Panel A), univariate comparisons (Panel B), and logistic regressions (Panel C) of the determinants of firms' decisions to disclose participation in 10b5-1 plans. Comparisons are made in the year of first disclosure for disclosing firms and in the first year of inferred 10b5-1 trade for non-disclosing firms. Panel C provides results from estimating: $Pr(Discl = 1) = \alpha_0 + \alpha_1 LitRisk + \alpha_2 InstitOwn + \alpha_3 InsideDirs + \alpha_4 Volat + \alpha_5 Volat * InstitOwn + \alpha_6 Volat * InsideDirs + \varepsilon$, where *Discl* is a dichotomous variable that equals one if the firm discloses Rule 10b5-1 participation details, and zero otherwise; *LitRisk* is the firm's expected class action litigation probability estimated in the year prior to 10b5-1 participation disclosure; *InstitOwn* is the percentage of institutional firm ownership (CDA/Spectrum) in the year prior to disclosure; *InsideDirs* is the ratio of officer directors to total board directors in the year prior to disclosure (Equilar); and *Volat* is the standard deviation of residuals from a regression of daily firm returns on daily value-weighted CRSP portfolio returns in the year prior to disclosure (CRSP). *LitRisk* is estimated from the following annual cross-sectional logistic regression [similar to Rogers and Stocken (2005)]: $Pr(DMGPd = 1) = \alpha_0 + \alpha_1 MinReturn + \alpha_2 StdDevReturn + \alpha_3 Turnover + \alpha_4 MVE + \alpha_5 BHRreturn + \alpha_6 Beta + \alpha_7 BiotechInd + \alpha_8 CompHWInd + \alpha_9 CompSWInd + \alpha_{10} ElecInd + \alpha_{11} RetailInd + \varepsilon$, where *DMGPd* equals one if the fiscal year falls within an alleged class action damage period (data provided by Woodruff Sawyer and Co.) and equals zero otherwise; *MinReturn* is the minimum single day firm return during the fiscal year; *StdDevReturn* is the standard deviation of daily returns during the fiscal year; *Turnover* is the average daily trade volume scaled by shares outstanding during the fiscal year; *MVE* is the average market value of equity during the fiscal year; *BHRreturn* is the prior fiscal year's buy and hold return; *Beta* is the firm's beta

coefficient from a regression of daily firm returns on daily market returns; and *BiotechInd*, *CompHWInd*, *CompSWInd*, *ElecInd*, and *RetailInd* are dichotomous variables that equal one if the firm represents the biotechnology, computer hardware, computer software, electric, or retail industries, and equal zero otherwise. Column 1 of Panel C presents logistic regression results using all available observations and fixed industry and year effects. Column 2 of Panel C presents conditional logistic regression results for the sample where each disclosure firm is matched with a non-disclosure firm from the same year, same 2-digit industry, and closest market value of equity.

Table 2
Weighted average abnormal returns

Panel A. Insider specific statistics by disclosure type						
Variable	<i>None</i>	<i>Lim</i>	<i>Spc</i>	<i>Spc - None</i>	<i>Lim - None</i>	<i>Spc - Lim</i>
	Mean	Mean	Mean	Mean (<i>t</i> -stat)	Mean (<i>t</i> -stat)	Mean (<i>t</i> -stat)
<i>Cumulative Sales (\$M)</i>	6.589	8.206	5.618	-0.971 (-0.39)	1.617 (1.62)	-2.588 (-1.01)
<i>Transaction Days</i>	4.878	10.720	25.065	20.187 (3.59)	5.843 (16.54)	14.345 (5.84)
<i>CEO</i>	0.126	0.240	0.541	0.415 (6.43)	0.114 (13.57)	0.301 (5.44)
<i>CFO</i>	0.079	0.126	0.148	0.069 (1.50)	0.047 (7.13)	0.022 (0.47)
<i>President</i>	0.129	0.220	0.443	0.314 (4.88)	0.091 (10.89)	0.223 (4.15)
<i>Director</i>	0.559	0.471	0.820	0.261 (4.09)	-0.088 (-7.73)	0.349 (5.42)
<i>Chairman</i>	0.096	0.149	0.410	0.314 (4.93)	0.053 (7.26)	0.261 (5.62)
<i>Officer</i>	0.724	0.874	0.836	0.112 (1.95)	0.150 (16.21)	-0.038 (-0.89)
Num Insiders	5,362	3,049	61			
Num Firms	1,833	1,199	49			

Table 2 (continued)

Panel B: Weighted Average Abnormal Returns							
Horizon	Statistic	<i>None</i>	<i>Lim</i>	<i>Spc</i>	<i>Lim – None</i>	<i>Spc – None</i>	<i>Spc - Lim</i>
6-mo	Insiders	4,946	2,921	60			
	Firms	1,736	1,151	47			
	Mean	-0.003	-0.056	-0.123	-0.053	-0.120	-0.067
	(<i>t</i> -statistic)	(-1.00)	(-13.56)	(-2.91)	(-9.72)	(-2.82)	(-4.53)
3-mo	Insiders	5,186	2,982	60			
	Firms	1,794	1,177	47			
	Mean	-0.004	-0.036	-0.082	-0.032	-0.078	-0.046
	(<i>t</i> -statistic)	(-1.68)	(-13.32)	(-2.41)	(-8.73)	(-2.29)	(-2.29)
1-mo	Insiders	5,362	3,049	61			
	Firms	1,833	1,199	49			
	Mean	-0.006	-0.014	-0.058	-0.008	-0.052	-0.044
	(<i>t</i> -statistic)	(-5.11)	(-10.94)	(-3.32)	(-4.18)	(-2.95)	(-2.26)
6-mo	Insiders	4,946	2,921	60			
	Firms	1,736	1,151	47			
	Median	-0.003	-0.050	-0.074	-0.047	-0.071	-0.024
	(<i>p</i> -value)	(0.027)	(0.000)	(0.002)	(0.000)	(0.001)	(0.027)
3-mo	Insiders	5,186	2,982	60			
	Firms	1,794	1,177	47			
	Median	-0.003	-0.024	-0.024	-0.021	-0.021	0.000
	(<i>p</i> -value)	(0.039)	(-0.000)	(0.030)	(0.000)	(0.020)	(0.154)
1-mo	Insiders	5,362	3,049	61			
	Firms	1,833	1,199	49			
	Median	-0.003	-0.008	-0.015	-0.005	-0.012	-0.007
	(<i>p</i> -value)	(0.000)	(0.000)	(0.005)	(0.000)	(0.011)	(0.043)

This table provides summary statistics (Panel A) and dollar volume-weighted average sales trade returns (Panel B) for insiders within specified disclosure classification groups. *Cumulative sales volume* is the dollar volume of sales (in millions) during the one-year period that follows the first observed disclosure between 2001 and 2006. *Transaction days* is the number of sales transaction days during the one-year period that follows the first observed disclosure between 2001 and 2006. *CEO, CFO, President, Director, Chairman,* and *Officer* are dichotomous variables that equal one if the insider holds the respective position title and equal zero otherwise. Weighted average abnormal returns are computed as $\sum_{j=1}^J \frac{DollarVol_j}{\sum_{j=1}^J DollarVol_j} (BHR_w - VWBHR_w)_j$, where

DollarVol is the trade dollar volume, *BHR_w* is the trade's *w*-month buy and hold return, *VWBHR_w* is the *w*-month buy and hold return to the CRSP value-weighted portfolio, and *j* is a subscript for each trade executed.

***, **, * denote significance at the 1-, 5- and 10-percent level (2-tailed), respectively. Significance for the medians is derived from the Kruskal-Wallis test.

Table 3
Calendar time portfolio returns

	$R_{port} - R_f$			
<i>None</i>	0.001 (0.46)			-0.002 (-0.26)
<i>Limited</i>		-0.010 (-2.25)		-0.012 (-1.86)
<i>Specific</i>			-0.047 (-2.94)	-0.043 (-5.27)
$R_m - R_f$	1.036 (21.33)	1.394 (9.53)	1.088 (2.13)	1.242 (9.42)
<i>SMB</i>	0.574 (10.70)	0.753 (4.93)	1.477 (3.12)	0.859 (6.21)
<i>HML</i>	0.195 (3.00)	0.027 (0.15)	0.387 (0.59)	0.225 (1.33)
<i>UMD</i>	0.172 (4.56)	0.025 (0.20)	-0.359 (-0.81)	0.022 (0.20)
<i>Coefficient Comparisons</i>				
<i>Limited – None</i>				-0.010 (-1.86)
<i>Specific – None</i>				-0.041 (-4.08)
<i>Specific – Limited</i>				-0.031 (-3.04)
None Month-Obs	72			
Limited Month-Obs		71		
Specific Month-Obs			45	
Adj R^2	0.871	0.793	0.429	0.589

This table provides results from a regression of $(R_{port} - R_f) = \beta_0 + \beta_1 (R_m - R_f) + \beta_2 SMB + \beta_3 HML + \beta_4 UMD + u$, where R_{port} is the equally-weighted monthly return to a portfolio of firms selected if an insider initiates a sales transaction within Rule 10b5-1 in the preceding month, R_f is the one-month treasury bill rate, R_m is the value-weighted monthly market return, and *SMB*, *HML*, and *UMD* are the monthly small-minus-big, high-minus-low, and momentum factors discussed in Fama and French (1993) and Carhart (1997). At least 3 firms must be present in each calendar-month to form a portfolio.

Table 4
Calendar time returns

	$R_j - R_{m(ew)}$	$R_j - R_{m(vw)}$
<i>None</i>	-0.012 (-5.41)	-0.011 (-4.18)
<i>Limited</i>	-0.016 (-7.58)	-0.021 (-5.61)
<i>Specific</i>	-0.043 (-3.67)	-0.043 (-3.54)
<i>Ln(BTM)</i>	-0.021 (-12.08)	-0.021 (-9.82)
<i>PriorReturn</i>	-0.003 (-2.60)	-0.004 (-2.32)
<i>PriorVolatility</i>	0.006 (0.14)	0.020 (0.45)
<i>Intercept</i>	-0.019 (-2.38)	-0.011 (-1.70)
<i>Coefficient Comparisons</i>		
<i>Limited – None</i>	-0.004 (-1.35)	-0.010 (-2.97)
<i>Specific – None</i>	-0.031 (-2.63)	-0.032 (-2.70)
<i>Specific – Limited</i>	-0.027 (-2.34)	-0.022 (-1.81)
Fixed Effects	Industry	Industry
Std Error Clusters	Month	Month
Number Firms None		1,840
Number Firms Limited		1,200
Number Firms Specific		46
Adj R^2	0.013	0.012

This table provides results from a regression of $(R_j - R_m) = \delta_0 + \delta_1 \text{None} + \delta_2 \text{Limited} + \delta_3 \text{Specific} + \delta_4 \text{Ln}(\text{BTM}) + \delta_5 \text{PriorReturn} + \delta_6 \text{PriorVolatility} + z$, where R_j is the monthly firm return, R_m is the equal-weighted or value-weighted monthly CRSP portfolio market return, *None* is a dichotomous variable that equals one during the month following a non-disclosed inferred Rule 10b5-1 sales transaction and equals zero otherwise, *Limited* is a dichotomous variable that equals one during the month following a limited-disclosed Rule 10b5-1 sales transaction and equals zero otherwise, *Specific* is a dichotomous variable that equals one during the month following a specific-disclosed Rule 10b5-1 sales transaction and equals zero otherwise, *BTM* is the book-to-market ratio measured at the end of the previous month, *PriorReturn* is the buy-and-hold firm return over the preceding 12 months, and *PriorVolatility* is the standard deviation of monthly stock returns over the preceding 36 months.

Table 5
Investors' response to earnings

Qtr Relative to Disclosure	<i>Limited</i>	<i>Specific</i>
	Mean (<i>t</i> -stat)	Mean (<i>t</i> -stat)
<i>Qtr</i> ₋₄	0.008 (2.49)	0.030 (2.16)
<i>Qtr</i> ₋₃	0.004 (1.48)	-0.007 (-0.29)
<i>Qtr</i> ₋₂	0.008 (3.08)	0.034 (2.06)
<i>Qtr</i> ₋₁	0.011 (4.30)	0.030 (2.16)
<i>Qtr</i> ₀	0.003 (0.92)	-0.002 (-0.12)
<i>Qtr</i> ₊₁	-0.001 (-0.35)	-0.000 (-0.03)
<i>Qtr</i> ₊₂	-0.000 (-0.06)	0.020 (1.18)
<i>Qtr</i> ₊₃	-0.005 (-1.93)	-0.005 (-0.35)
<i>Qtr</i> ₊₄	-0.006 (-2.10)	0.007 (0.63)
<i>Qtr</i> ₋₄ to <i>Qtr</i> ₋₁	0.008 (5.57)	0.024 (2.24)
<i>Qtr</i> ₊₁ to <i>Qtr</i> ₊₄	-0.003 (-2.23)	0.005 (0.75)

This table provides statistics regarding three day market-adjusted returns centered on quarterly earnings announcement dates (*RDQE* from Compustat). Firm quarters are selected based on their proximity to the quarter in which the first insider trade is executed following 10b5-1 disclosure (*Qtr*₀). Firm returns over the three days centered on the quarterly announcement are adjusted by subtracting the same period return to the value-weighted CRSP portfolio. Sample reflects 902 limited and 33 disclosure firms with data for all quarters.

Table 6
Investors' response to disclosure

Event		<i>Specific</i>	<i>Limited</i>	<i>Specific - Limited</i>
<i>Announcement</i>	Mean	-0.002	-0.002	0.000
	(<i>t</i> -statistic)	(-0.18)	(-0.80)	(0.05)
	Median	-0.003	-0.001	-0.002
	(<i>p</i> -value)	(0.700)	(0.221)	(0.886)
	<i>N</i>	63	559	
<i>Transaction</i>	Mean	-0.005	0.003	-0.008
	(<i>t</i> -statistic)	(-0.62)	(2.17)	(-0.93)
	Median	-0.011	0.001	-0.012
	(<i>p</i> -value)	(0.267)	(0.170)	(0.119)
	<i>N</i>	47	1,197	

This table provides statistics regarding three day market-adjusted returns centered on *Announcement*, the Rule 10b5-1 disclosure event date, and on *Transaction*, the SEC report date for the first sales transaction subsequent to *Announcement*. *Announcement* observations do not include Form 4 disclosures, since the Form 4 disclosures are reflected as *Transaction* events. Returns denoting market adjustments are adjusted by subtracting the same period return to the value-weighted CRSP portfolio.