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VIA EMAIL

October 9, 2012

BRITISH COLUMBIA UTILITIES COMMISSION
GENERIC COST OF CAPITAL PROCEEDING EXHIBIT A2-24

To: All Registered Parties
(*BCUC-GCOC*)

Re: British Columbia Utilities Commission
Project No. 3698660/G-20-12
Generic Cost of Capital Proceeding

Commission staff submits the following document for the record in this proceeding:

Bradshaw et al. - Playing Favorites

Yours truly,

Erica Hamilton

/dg
Attachment

IRQ

VOLUME 6, NUMBER 2

Intersection of Influence

niri *Investor Relations Quarterly*
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VOLUME 6, NUMBER 2

Intersection of Influence

FEATURES

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niri *Investor Relations Quarterly*
A JOURNAL OF CORPORATE VALUE

IRQ
VOLUME 6, NUMBER 2

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IRQ (ISSN-1093-510X) is published four times annually by NIRI at 8020 Towers Crescent Drive, Suite 250, Vienna, VA 22182. Beth Carty, Managing Editor, *IRQ,* Tel: (703) 506-3573.

SUBSCRIPTIONS: one year, $100; two years, $175. Air mail outside the U.S.: one year, $150; two years, $225. Single copies mailed upon request: $35, including postage and handling; outside U.S.: $40. Periodical postage paid at Merrifield, Virginia, and additional mailing offices. NIRI members and Postmaster: Send changes of address and all subscription correspondence to NIRI, 8020 Towers Crescent Drive, Suite 250, Vienna, VA 22182; e-mail address: irq@niri.org

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Printed in the U.S.A.

niri *Investor Relations Quarterly*
A JOURNAL OF CORPORATE VALUE

Playing Favorites

Financing Opportunities Sway Analysts' Thinking

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THE RECENT $1.4 BILLION SETTLEMENT BETWEEN MAJOR securities firms and regulators called into question the quality of sell-side analyst research.

Allegations revolve around whether investment banking creates pressures that compromise research integrity. Critics claim that analysts at brokerage houses with the potential for lucrative underwriting business defer to demands from the investment banking side of the business and release overly optimistic earnings forecasts, target prices and investment recommendations.

Our research documented and quantified the extent to which investment banking pressures bias sell-side analyst research. It showed that sell-side analysts' forecasts and recommendations were most optimistic for firms that were issuing securities and least optimistic for firms that were repurchasing securities. We found that the observed bias is pervasive and exists in analysts' short-term earnings forecasts, long-term earnings forecasts, stock recommendations and target prices. Additionally, the impact of investment banking pressures on analyst research integrity extended to financing activities in both debt and equity securities.

The economic significance of our results is striking. For example, we found that the target prices set by analysts on average were 75 percent too high for firms issuing securities versus only 20 percent too high for firms repurchasing securities. Moreover, the overoptimism for firms issuing securities rose and fell during windows centered on the securities issuances.

Conflict of Interest

The purported role of sell-side analysts who work for brokerage houses is to provide investment research to brokerage clients. However, the brokerage houses typically are owned by securities firms that also offer investment banking services. This collocation of research activities with investment banking activities has led to allegations by investors and regulators that sell-side analysts end up being promoters of the securities of investment banking clients rather than providers of independent analysis.

Securities firms claim that they establish "Chinese walls" to separate their research and investment banking activities. Even so, recent investigations by regulators have produced startling anecdotes of clear breaches of these walls. These anecdotes include cases where analysts' compensation was tied to the generation of investment banking fees, they sought permission from bankers before issuing unfavorable research on investment banking

clients, or they played direct roles in pitching investment banking deals. Other anecdotes point to bankers using the promise of favorable research coverage to pitch deals to investment banking clients.

Academic Evidence of Analyst Bias

There are two potential determinants of the bias in sell-side analyst research stemming from investment banking activities. First, the analyst may be covering a company that is an existing investment banking client. We refer to such analysts as affiliated analysts. Second, the analyst may be covering a company that is viewed as a potentially lucrative future investment banking client. Previous academic research has concentrated on the first of these determinants but has been relatively silent on the second.

Academic research has found only mixed evidence that affiliated analysts are more optimistic than unaffiliated analysts. Seven studies conducted between 1995 and 2003 found modest evidence that affiliated analysts issued more optimistic long-term growth forecasts and stock recommendations. They reported conflicting evidence for short-term earnings forecasts. Figure 1 summarizes selected findings from previous research.

Amitabh Dugar and Siva Nathan in 1995 identified the investment bankers of record from the *Corporate Finance* blue book for 102 seasoned equity offerings and concluded that affiliated analysts were more optimistic than unaffiliated analysts. Hsiou-Wei Lin and Maureen McNichols in 1998 compared a sample of 1,069 seasoned equity offerings from 1989 to 1994 with available analyst forecast data and found little difference in forecasts of long-term growth across affiliated and unaffiliated analysts. They defined affiliated as an analyst working for either the lead or co-lead underwriter. Robert S. Hansen and Atulya Sarin examined seasoned equity offerings and found that earnings forecasts were less accurate for affiliated analysts but no more biased than forecasts by unaffiliated analysts.

FIGURE 1: STUDIES OF AFFILIATED ANALYSTS' FORECASTS

Study	Event	Time Period	Sample Size	Selected Results				
					Variable			
				Analyst grouping	Forecast error	Stock recommendation		
Dugar and Nathan (1995)	Seasoned equity offerings	1983 – 1988	102 firms	Unaffiliated Affiliated	(0.028) (0.040)	3.511 3.760		
				Analyst grouping	Forecast EPS (next year)	Forecast EPS (2nd year)	Forecast EPS growth	Stock recommendation
Lin and McNichols (1998)	Seasoned equity offerings	1989 – 1994	1,069 seasoned equity offerings	Unaffiliated Affiliated	0.071 0.070	0.098 0.099	0.207 0.213	3.901 4.259
				Analyst grouping	Forecast error			
Hansen and Sarin (1998)	Seasoned equity offerings	1980 – 1991	909 seasoned equity offerings	All Lead	(0.050) (0.050)			
				Analyst grouping	Forecast EPS growth	Error		
Dechow, Hutton, and Sloan (2000)	Seasoned equity offerings	1981 – 1990	1,179 seasoned equity offerings	Unaffiliated Affiliated	0.159 (0.144)	(0.103) 0.201		

Forecast errors are computed as actual earnings minus forecast earnings. Both EPS forecasts and forecast errors are scaled by stock price. Stock recommendations are converted to a scale where 5 equals strong buy and 1 equals strong sell.

Using a sample of 1,179 common stock offerings from 1981 to 1990, Patricia M. Dechow, Amy Hutton and Richard G. Sloan in 2000 found that long-term growth forecasts of affiliated analysts on average were higher than those of unaffiliated analysts. In that sample, affiliated analysts forecast long-term earnings growth of 20.1 percent compared with realized earnings growth of 5.7 percent, an optimistic error of negative 14.4 percent. That

compared with unaffiliated analysts who forecast long-term earnings growth of 15.9 percent (realized earnings growth was 5.6 percent for these firms), yielding a smaller optimistic error of negative 10.3 percent.

Collectively, there is some evidence that affiliated analysts are more optimistic in their forecasts of long-term earnings growth. However, as Figure 1 indicates, the magnitude of the level of optimism across affiliated versus unaffiliated analysts is quite small.

More recent research has found evidence that affiliated sell-side analysts are slower in downgrading their stock recommendations compared with unaffiliated analysts. A 2003 study by Lin, McNichols and Patricia O'Brien used a sample of 3,553 equity offerings from 1984 to 2001 and found that affiliated recommendations were only 86 percent as likely to downgrade as an unaffiliated analyst covering the same company.

In another 2003 study, Amanda Cowen, Boris Groysberg and Paul Healy painted a different picture for affiliated analysts. Examining the forecast accuracy of analysts working for the 10 brokerage houses sanctioned by regulators as part of the $1.4 billion settlement, they found no evidence that those analysts were more optimistic than other analysts. In fact, they found evidence suggesting that analysts working for the sanctioned brokerage houses were more accurate — in other words, less biased — than other analysts.

None of the aforementioned research examined the quality of sell-side research as a function of the potential for future investment banking business. The fact that a particular analyst ended up being affiliated on a particular investment banking deal does not necessarily mean that other analysts did not issue biased research as part of a failed attempt to win that investment banking business or as a ploy to obtain future investment banking business.

Our research used the level of corporate financing activities in which a company was engaged as the primary determinant of bias in sell-side analyst

research. For example, if a company was growing and actively raising additional debt and equity to fund that growth, the company clearly was a potentially lucrative investment banking client. As such, all analysts who were under pressure from their investment bankers would face incentives to issue optimistically biased forecasts on it. Which investment bankers ended up winning particular pieces of investment banking business may well be of second-order importance in determining analyst behavior.

A second reason why unaffiliated analysts may have issued biased forecasts on companies that were actively raising new capital is the collusion between the analyst and the unaffiliated investment banking firm. For example, recent investigations by regulators documented the practice of research guarantees whereby investment banks paid unaffiliated analysts for overly optimistic research on their investment banking clients. Thus, the results of research focusing on differences in affiliated versus unaffiliated analyst research potentially understated the extent to which analyst research was tainted by investment banking considerations.

Consistent with this intuition, we found that the presence of securities issuances explained much more of the variation in analyst overoptimism than did analyst affiliation. Our results extend Raghuram Rajan and Henri Servaes' 1997 study, which found that analysts were overoptimistic in their earnings forecasts following initial public offerings relative to a seasoned control sample.

A complete analysis of the impact of corporate financing on sell-side analyst research is contained in our recent academic research paper. Here we outline some of the main results from that paper.

Defining the Research

We examined bias in sell-side analyst research for 53,582 company-years from 1975 through 2000. Financial statement data came from the Compustat

annual files and analyst data from I/B/E/S and First Call. I/B/E/S summary files provided earnings forecast data, and the First Call detail estimates files yielded target price forecasts and stock recommendations.

We used balance sheet information to calculate a measure of net external financing activity for each company in each year, focusing on net changes in equity and debt. This straightforward measure of external financing applies to large samples of data and provides a measure of the net magnitude of corporate financing activities. By allowing us to distinguish between companies that were issuing new securities and those that were repurchasing securities, this framework allowed us to distinguish between good and poor potential investment banking prospects.

We expected investment banking pressures to be greatest for firms issuing the most new securities and lowest for firms with so little need for new financing that they were repurchasing existing securities. We compared analyst research for those two types of firms. Our analyst data represented monthly consensus amounts either taken from the I/B/E/S Summary Statistics files or computed using the First Call detail estimate files.

Evidence of Persistent Optimism

Figure 2 shows descriptive means and medians for external financing variables and analyst variables.

Overall, the positive mean and median for net external financing activity indicates that the firms in our sample generally were increasing the amount of external financing during the time of our study, which was not surprising given that it was a period of economic growth. The relative means for net changes in equity and debt indicate that choices in financing tilted toward equity rather than debt financing. The medians of all external financing variables are closer to zero, indicating that the means were skewed by some firms' large transactions.

FIGURE 2: EXTERNAL FINANCING AND ANALYST VARIABLES

Variable	Number of Firm-Years	Mean	Median
Net external financing activity	53,582	0.092	0.014
Net change in equity	53,582	0.061	(0.002)
Net change in debt	53,582	0.031	–
Forecast error based on current-year EPS	51,320	(0.029)	(0.005)
Forecast error based on forecast for next fiscal year	35,504	(0.036)	(0.014)
Forecast long-term EPS growth	38,509	0.179	0.150
Error in forecast of long-term EPS growth	14,306	(0.058)	(0.048)
Mean consensus recommendation (1 = strong sell; 5 = strong buy)	8,769	3.964	4.000
Mean consensus target price forecast to actual stock price	6,442	1.447	1.309
Target price error	6,442	(0.344)	(0.331)

Financing activity variables are scaled by total assets.

What is immediately evident among the analyst variables is the consistently negative means and medians for the variables that captured so-called error in analysts' forecasts. Recall that the error variables were measured such that analyst optimism translated into negative forecast errors. For example, the mean forecast error of a negative 0.029 indicates that, on average, analysts' forecasts of earnings per share were too high by about 2.9 percent of stock price. The median is somewhat smaller, at a negative one-half percent of price, indicating the presence of some large errors in the sample.

The same pattern existed for the next-year annual forecast. The mean error in long-term earnings per share growth forecast of minus 0.058 relative to the mean forecast long-term earnings per share growth of 0.179 indicates that analysts forecast earnings growth to be 150 percent of what was actually realized. Stock recommendations showed means and medians of about 4.0, representing buy recommendations. Finally, target prices were extremely optimistic, with a mean of 1.447, indicating a predicted

FIGURE 3: ANALYST VARIABLES

Firms with net external financing activity	Sell-Side Analyst Variable						
	Forecast error	Forecast error next fiscal year	Long-term earnings per share growth	Long-term earnings per share forecast error	Mean consensus stock recommendation	Target price to price	Target price error
LOW	(0.022)	(0.024)	0.142	(0.038)	3.859	1.331	(0.211)
2	(0.018)	(0.025)	0.136	(0.048)	3.790	1.355	(0.229)
3	(0.020)	(0.026)	0.137	(0.045)	3.848	1.354	(0.207)
4	(0.026)	(0.031)	0.152	(0.042)	3.884	1.368	(0.254)
5	(0.026)	(0.030)	0.167	(0.050)	3.940	1.407	(0.227)
6	(0.026)	(0.036)	0.178	(0.064)	3.936	1.461	(0.346)
7	(0.034)	(0.039)	0.178	(0.068)	3.982	1.449	(0.316)
8	(0.040)	(0.044)	0.190	(0.060)	4.076	1.463	(0.358)
9	(0.037)	(0.047)	0.222	(0.081)	4.187	1.539	(0.542)
HIGH	(0.039)	(0.058)	0.313	(0.120)	4.174	1.744	(0.748)
Portfolio difference	(0.017)	(0.035)	0.170	(0.082)	0.315	0.413	(0.537)

44.7 percent increase in price over the next 12 months. Not surprisingly, the mean error was a negative 0.344, indicating that mean return for the sample is only 10.3 percent, substantially less than the 44.7 percent that analysts were expecting.

The means and medians in Figure 2 reflect those of the entire sample of firms with analyst data. Figure 3 shows that the overall level of optimism is also strongly associated with the level of new securities issuances.

We measured the level of net external financing activity for each firm in each year of the sample. Within each year we allocated all firms to deciles based on their levels of external financing relative to all other firms. Finally, we pooled all firms in Decile 1 from each year and computed the means for each of the analyst variables, did the same for Decile 2, and so on. Firms in the lowest deciles were net repurchasers of securities; firms in the highest deciles were net issuers of securities. Clearly, analysts were much more optimistic for firms that were issuing the most new external financing. The variables measuring forecast error proceed to the largest negative values

from the low financing deciles through the high financing deciles.

For earnings forecast errors, the means for firms with the highest external financing were roughly twice the level for the firms in the lowest level of financing. Analysts' forecasts of long-term earnings growth were also much higher for firms issuing the most new financing, which is not surprising. However, what is surprising is that analysts were so persistently over-optimistic in their forecasts of growth for such firms.

One might argue that it is harder to forecast earnings growth for high-growth firms, but it is telling that the errors seem to be pervasively negative rather than positive. Even more striking is the level of error in analysts' target price forecasts for firms issuing the most new financing. Consistent with the overall means, even firms with the lowest levels of external financing had target prices that were just over 20 percent too high. However, for firms with the highest levels of financing, target prices were almost 75 percent too high.

Figure 3 demonstrates that there is a strong relationship between external financing and analyst optimism. Firms issuing the most external financing received earnings forecasts, growth projections and target price forecasts that were persistently more overoptimistic than those for other firms.

When we analyzed equity and debt financing separately, an interesting picture emerged. Forming portfolios on levels of equity financing resulted in similar patterns of similar magnitudes to those shown for total financing in Figure 3. However, when forming portfolios on the level of debt financing, we saw no evidence of overoptimism in long-term EPS growth forecasts, stock recommendations or target prices.

We interpreted this evidence as follows. Because equity pricing is very sensitive to long-term EPS growth forecasts, stock recommendations and target prices, analysts aggressively bias those variables for equity issuers.

On the other hand, debt pricing is capped by the amount of promised interest and principal repayments. Thus, for debt issuers we saw analyst optimism only where it mattered most — in short-term earnings forecasts. For equity issuers, investment bankers create a picture of explosive earnings growth. For debt issuers, the picture is a strong and stable earnings stream. Analysts appear to tailor their overoptimism accordingly.

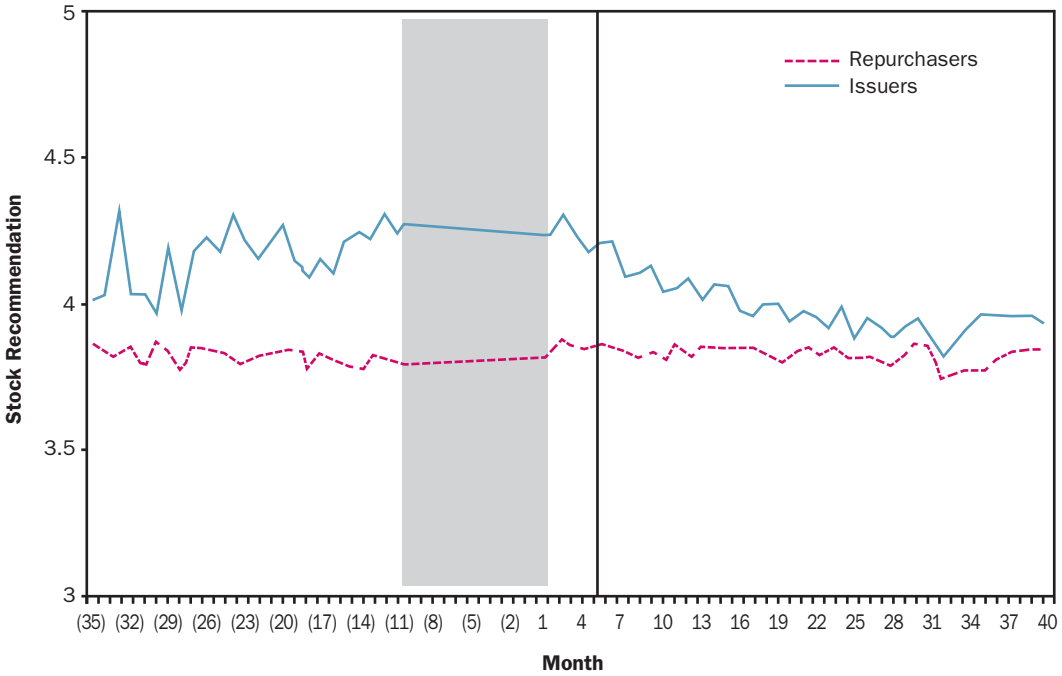
Other Factors in Overoptimism

The evidence clearly shows that analysts are more optimistic for firms issuing large amounts of external financing. However, rather than being deliberately overoptimistic in an attempt to win investment banking business, perhaps analysts simply fall prey to the excitement surrounding the financing of new ventures. Although these alternatives are difficult to disentangle, the next step in our research was to examine the timing of analysts' overoptimism surrounding the dates of external financings.

The means and medians presented in Figures 2 and 3 were measured at the end of a four-month window after the end of the fiscal year in which we measured changes in external financing. To gauge whether analysts' optimism increased and decreased surrounding the actual securities issuances, we tracked the level of analyst optimism for 36 months before and after that window. Because most of the action appeared within the longer-term analyst variables, we only graphed the means of stock recommendations, long-term growth forecast errors and target price forecast errors.

In Figures 4, 5 and 6 the shaded regions span the fiscal year in which the external financing was measured. For stock recommendations in Figure 4, the spread between consensus stock recommendations for net issuers — firms in the high decile from Figure 3 — and net repurchasers — low-decile firms — increased during the financing year, gradually converging

FIGURE 4: STOCK RECOMMENDATIONS



Shaded area represents period related to external financing.

afterward. Similarly, Figure 5 shows that analysts' long-term growth forecast errors were similar three years before the financing activities, but that leading up to the financing year analysts released much more overoptimistic long-term growth forecasts for issuers than for repurchasers.

Again, after the external financing year, the level of analysts' overoptimism for the issuer firms converges to that of the repurchasers. Finally, in Figure 6, it is clear that there was a significant increase in analysts' overoptimistic target price forecasts for issuing firms precisely during the external financing year. Afterward, analysts decreased their level of optimism to more normal levels.

The figures clearly demonstrate that analysts' optimism peaks during the months of the external financing activity. It may be that in an attempt to garner investment banking business, analysts strategically become over-

FIGURE 5: LONG-TERM EARNINGS GROWTH FORECAST ERRORS

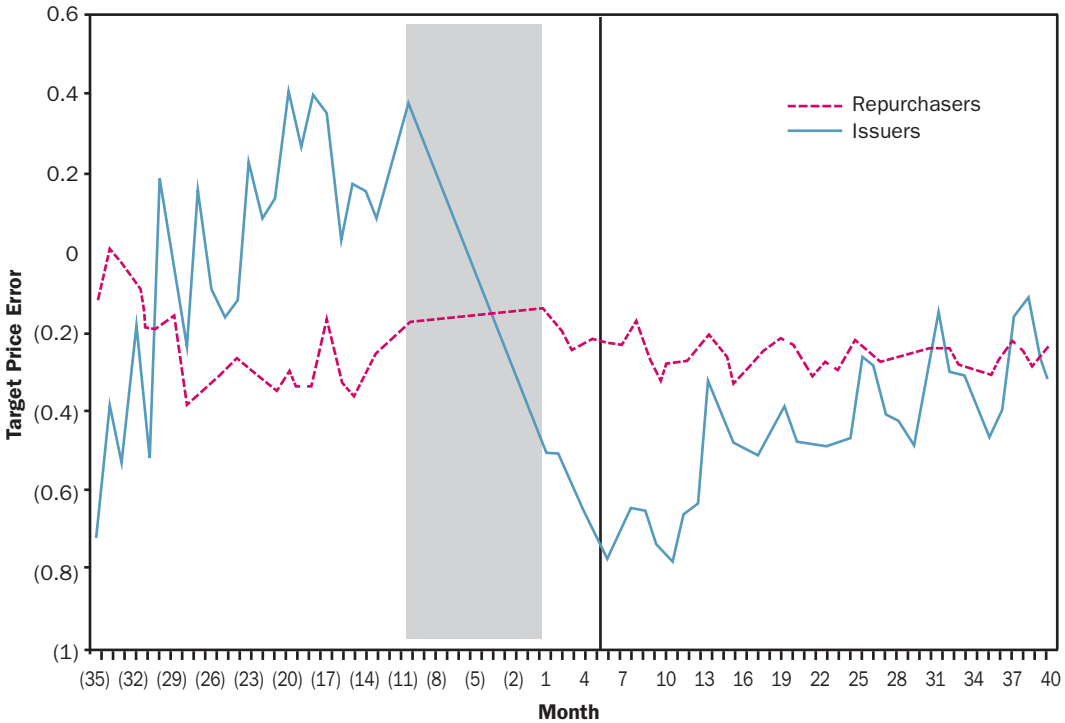
Shaded area represents period related to external financing.

optimistic as they sense that firms are considering capital market issuances. The large investment banking fees available for debt and equity issuances certainly lend support for this explanation.

Alternatively, it may be that managers happened to take advantage of capital markets just when the analysts were most optimistic. This explanation requires that managers have very keen abilities to know just when analysts are the most optimistic. Either way, it appears that analyst overoptimism is explained largely by the presence of debt and equity security issuances.

To benchmark the optimism associated with external financing against previous studies, we also examined the relative levels of analyst overoptimism between affiliated and unaffiliated analysts. We identified the lead and

FIGURE 6: TARGET PRICE FORECAST ERRORS



Shaded area represents period related to external financing.

co-lead underwriters on external financings and partitioned analysts based on whether they were affiliated. Many more analysts' forecasts were classified as nonaffiliated than affiliated.

To maintain the same sample of firms, we have graphed only the top two deciles of net securities issuers. Figures 7 and 8 present the means for stock recommendations and target price forecast errors and can be benchmarked against Figures 4 and 6, respectively. The graphs indicate that an analyst's status as affiliated results in somewhat more optimism, depending on the month. However, the spread between the affiliated and unaffiliated partition is clearly minor compared with the spread between the largest net issuers and largest net repurchasers.

FIGURE 7: STOCK RECOMMENDATIONS, AFFILIATED ANALYSTS

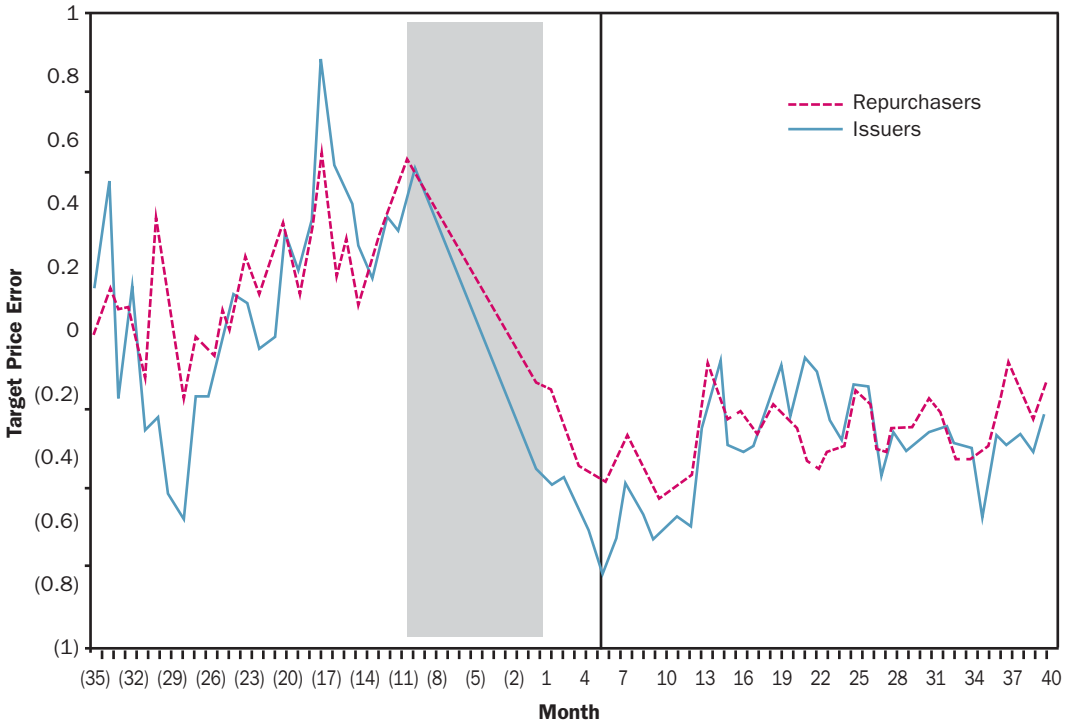
Shaded area represents period related to external financing.

Investor Be Aware

Our research provided evidence of a strong relationship between corporate financing activities and overoptimism in sell-side analyst research. Analysts are most overoptimistic for firms issuing new securities and least overoptimistic for firms repurchasing existing securities.

Moreover, our evidence indicated that analysts customized their overoptimism to the type of security being issued. The upside in equity is unlimited and is driven primarily by long-term earnings growth. Accordingly, overoptimism is concentrated in long-term growth forecasts, stock recommendations and target prices for equity issuers. The upside in

FIGURE 8: TARGET PRICE FORECAST ERRORS, AFFILIATED ANALYSTS



Shaded area represents period related to external financing.

debt is limited to the promised debt repayments, and the main concern for debt instruments is credit risk. Accordingly, overoptimism is concentrated in short-term earnings forecasts for debt issuers.

Whether recent events herald a new era of integrity in sell-side research remains to be seen. In the meantime, we recommend that investors apply a healthy dose of skepticism when using sell-side analyst research for firms that are in the process of issuing new securities. ■

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