Conflict or Credibility: Research Analyst Conflicts of Interest and the Market for Underwriting Business

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ABSTRACT

This paper argues that, contrary to conventional wisdom, conflicts of interest among equities research analysts (that is, when investment banks would offer positive analyst research in quid pro quos for underwriting business) were beneficial to the capital markets. First, conflicted analyst research credibly signaled positive inside information that is otherwise too costly to communicate under Securities Act liability, correcting informational asymmetries. Second, conflicted analyst research mitigated agency costs between issuer and underwriter by allowing the underwriter to credibly commit to exerting more effort than the underwriter would prefer. Third, analyst research quid pro quos took the form of a competitive bidding market among underwriters and may have improved competition in the underwriting industry. In light of these conclusions, recent reforms prohibiting analyst conflicts of interest are counterproductive. Preferable modes of regulation include liberalizing Securities Act liability, increasing mandatory disclosure of conflicts, and increasing fraud penalties.

1. INTRODUCTION

Investment banks have long attracted potential securities underwriting clients with favorable analyst research coverage or the promise thereof.[1]

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1. The capture of research analysts by underwriters dates back to 1975, when trading commissions were deregulated. Until that time, analysts had been captured by brokers, whose regulated fees could fund analyst research. See Sieland (2003, p. 534–42).

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In the bull market of the 1990s, this practice intensified, and positive analyst research became one of the principal bases on which issuers would choose an underwriter.[2] Analyst compensation became a cut of investment banking business generally or even a cut of specific deals. Analysts were, essentially, part of the investment banking team—pitching deals to issuers, marketing offerings in roadshow presentations to investors, and producing postoffering research coverage with an eye toward attracting new investment banking clients.

q1 These analyst conflicts of interest, and the quid pro quos that exchanged research for underwriting business, were public knowledge,[3] being, among other things, disclosed in the research reports themselves
q2 under National Association of Securities Dealers (NASD) and Securities and Exchange Commission (SEC) rules. Although the legal duty of honesty always attached to analyst research, little objection was raised to analyst research conflicts, and they persisted largely unregulated throughout the halcyon days of the tech stock surge.

However, as the "new economy" soured and many freshly minted public companies performed catastrophically in 2000 and 2001, the media, regulators, and Congress began directing attention toward this long-standing market for analyst research and underwriting mandates. It appeared, at least to these observers, that underwriters and their analyst lackeys were culpable of what was, functionally, systemic fraud: hyping a company's shares without regard to underlying quality, shamelessly shilling for underwriting dollars.[4] With widespread losses among retail investors providing plenty of political fuel for the fires of reform, Congress devoted an entire title of the Sarbanes-Oxley Act of 2002 (Pub. L. No. 107-204, 116 Stat. 745 [2002]) to curbing analyst conflicts. With Sarbanes-Oxley's mandate implemented by the exchanges and NASD,

2. See U.S. Congress (2001, p. 9); and Krigman, Shaw, and Womack (2001, p. 245), who found that issuers switch underwriters in part to "buy additional and influential analyst coverage."

3. See, for example, *In re Merrill Lynch & Co. Research Reports Securities Litigation,* Case No. 02-CV-7854 (S.D.N.Y. July 2, 2003): the "alleged conflict of interest between brokerage firms, investment bankers and research analysts . . . was a matter of public knowledge for years before the amazing boom of the market [that] initially rewarded those who disregarded such caveats." Reports of analyst conflicts date back to at least 1990; see, for example, Schultz (1990).

4. One congressman characterized analysts as "cheerleaders for the bubble" (U.S. Congress 2001); see also McLean (2001).

the market for analyst research is effectively outlawed.[5] Virtually all media and academic commentary has regarded this as a long overdue case of Congress cleaning house.

However, I would argue, quite to the contrary, that analyst research quid pro quos played a significant and positive role, benefiting issuers and investors alike and making up for shortcomings in the current regulatory scheme governing public offerings. Banning such practices is counterproductive.

First and foremost, analyst research acted as an alternative channel of disclosure, one that allows issuers to overcome a serious asymmetric-information problem. Conflicted analyst research signals the underwriter's inside information both at the time the costly promise to provide positive research is made and also when the report is actually issued (essentially a confirmation of the underwriter's earlier forecast). As opposed to prospectus disclosure, which is subject to strict liability, this signal is subject only to fraud liability. While strict liability has the well-recognized effect of chilling disclosure regarding a firm's future prospects and opportunities, fraud liability presents an acceptable cost to the issuing firm, which allows this information to make its way into the marketplace.

Second, the commitment to publish positive analyst research helped to mitigate agency problems between issuers and underwriters that arise because of the issuer's limited ability to contract for offering price and to monitor the underwriter's effort. By committing to publish positive analyst research prior to the offering, the underwriter binds itself to the mast by incurring, up front, a substantial cost on behalf of the issuer.

Finally, the market for analyst research may have improved competition in the securities underwriting industry. Quid pro quos of analyst research for underwriting business took the form of a competitive bidding market, in which underwriters bid for an issuer's business with increasingly costly promises of positive analyst coverage. To the extent that the underwriting industry otherwise exhibits collusive tendencies, competing on the basis of analyst research would transfer wealth from underwriter to issuer, ultimately benefiting shareholders.

Thus, the analyst research practices that developed were likely beneficial in terms of improving disclosure, reducing agency costs, and im-

5. The main implementing rules are found in New York Stock Exchange (NYSE) Rule 472, National Association of Securities Dealers (NASD) Rule 2711, and Securities and Exchange Commission (SEC) Release Nos. 33-8193, 34-47384.

proving competition. Certain reforms may be desirable in order to strengthen the signaling value of disclosure via analyst research, such as mandating more specific divulgence of analyst conflicts or ratcheting up fraud penalties. However, an outright ban of analyst conflicts of interest is counterproductive and harmful.

This paper will proceed as follows: Section 2 describes in more detail the analyst role in public offerings and the recent regulatory response. Section 3 develops an informal model of issuer-underwriter-investor behavior, in which favorable analyst research serves as a credible signal of investment quality, mitigates agency costs, and possibly improves competition in the underwriting industry. Section 4 considers the ramifications of prohibiting analyst conflicts and then suggests a preferable mode of regulation, rather than prohibition. Section 5 briefly concludes.

2. QUID PRO QUOS: ANALYST RESEARCH AND UNDERWRITING MANDATES

2.1. The Role of the Analyst

The putative purpose of an analyst research report is to give investors the analyst's opinion on the investment quality of the subject securities, often termed as a rating or recommendation as to whether the securities ought to be bought or sold.[6] Sometimes, and especially where the covering analyst purports to have expertise in the industry, the analyst's evaluation will run to some depth, engaging in substantial discussion of the issuing firm's operations, strategy, and prospects.

Analysts are either conflicted or independent. Conflicted analysts have ties to the investment bankers who underwrote, or are engaged to underwrite, the issuer's securities.[7] In contrast, the other analysts—the independent ones—have no such affiliation that would lead them to give biased advice. Somewhat surprisingly, the market appears to place little value on independent analysts' impartiality: conflicted analysts dominate the research market, accounting for well over 90 percent of research commissions (see U.S. Congress 2001, p. 49). This becomes less puzzling, however, when one considers that independent research analysts have

6. Analysts, and their role in public offerings, have been extensively discussed in the recent legal literature. See Fisch and Sale (2003, p. 1041–56) for a detailed description of the analyst's role in a securities firm and the possible sources of conflicts.

7. One might consider buy-side analysts (those with ties to a brokerage) to be conflicted as well, but since such analysts are without access to inside information (and were not the subject of congressional scrutiny), I do not discuss them here.

little if any access to information of value to investors—particularly after the SEC's Regulation Fair Disclosure, which forbids selective disclosure of inside information about public companies to research analysts. Independent research contains nothing more than public information and is essentially without value.

On the other hand, conflicted analysts, by virtue of their conflicts, gain access to valuable information about the issuer. Since underwriters must work with an issuer to prepare it for the public-offering process and conduct the underwriters' due diligence, the investment bank underwriting the offering gains access to nonpublic information—much of which may never be made public in the public-offering prospectus. The investment bank's analyst, if involved in the offering, gains access to that information as well. Investors may expect that a conflicted analyst knows something of value.

Conflicted analysts' involvement in an offering would often begin at an early stage, with the analyst's research (or promise thereof) an integral part of the underwriting package. The underwriter might promise to have its analyst write a positive report and highlight the positive research the underwriter had already published for other clients; the implication would be that the underwriter would do the same for the issuer post offering (see, for example, Elkind 2001). The issuer would find itself courted by several underwriters, each offering a varying degree of optimism in its research; the issuer would, ceteris paribus, choose the underwriter offering the most optimism.[8]

After the issuer had selected its underwriter, the underwriter would involve the analyst in the actual offering process, which would include organizational meetings with management, due diligence, and roadshow marketing activities for potential investors. Once the offering was completed and the statutory quiet period had elapsed, analysts initiated (or, in the case of a seasoned issuer, resumed) coverage of the issuer with, q3 in the vast majority of cases, a buy rating.[9] Analyst compensation would

8. According to Jay Ritter, professor of finance at the University of Florida and a prominent initial public offering (IPO) expert, "[I]t was common for banks to tell customers in writing on what date they would publish a report giving the newly public company a positive investment rating. . . . 'In health-care and high-tech, many banks delivered the first draft of a research report on the public company when they pitched the IPO'" (Bloomberg.com 2004).

9. An SEC study found that in 317 IPOs, the underwriting firm provided analyst coverage in 308 instances. Such coverage was overwhelmingly positive. The ratio of buy to sell recommendations by brokerage analysts increased from 6:1 to 100:1 from the early 1990s to 2000. U.S. Congress (2001, p. 232, 5).

be determined, quite often, on the basis of how well the issuer's securities performed.

None of this was illegal: so long as analyst reports were not dishonest, conflicts of interest did not, of themselves, constitute a violation of the law. However, as stock prices, particularly those of new issuers, collapsed starting in April of 2000, Congress began hearings, the SEC investigated, and the general tide of sentiment turned as a few especially egregious, and widely reported, instances of analyst-related misconduct surfaced.[10]

Ultimately, what emerged out of the hue and cry over analyst conflicts was Title V of the Sarbanes-Oxley Act of 2002, which calls for rules to govern analyst conflicts of interest within investment banks. As implemented by the NASD and the New York Stock Exchange (NYSE), analyst conflicts of interest are now virtually prohibited, and the role that analysts can play in soliciting, pitching for, and marketing securities offerings has been substantially curtailed. No longer may analysts offer (or withhold) positive research as a quid pro quo for investment banking business, nor can they share research reports with the subject companies prior to publication (except for fact checking). Investment bankers can no longer supervise analysts or review their work prior to publication, nor can analyst compensation be tied to specific investment banking deals.[11] In short, the legislative and regulatory response has been to outlaw analyst conflicts of interest in public offerings.

2.2. Theories of Analyst Behavior

The academy has generally approved of these reforms, viewing analyst conflicts as exploiting some form of market inefficiency. Many have suggested that analysts preyed upon gullible investors—"noise traders"—in order to boost stock prices. While in an efficient market risk arbitrage would keep prices in line with fundamental value, given a sufficient volume and duration of noise trading, sophisticated investors may be unwilling to bear the risk or pony up the capital needed to exploit such arbitrage opportunities (Shleifer and Vishny 1997). This could allow an unscrupulous firm to increase initial offering proceeds, since initial purchasers—even sophisticated ones—would be willing to

10. A prime case is that of Jack Grubman, who allegedly stepped up his ratings on AT&T in return for help in admitting his daughter to an elite Manhattan preschool. See SEC Litigation Release No. 18438, 2003 SEC LEXIS 2601 (October 31, 2003).

11. The NASD/NYSE rules do allow analyst research compensation to be tied to general investment banking business, so long as disclosure of this fact is made in the research reports.

pay more for a firm's securities knowing that noise traders will boost prices later on when the analyst report comes out (the "greater fool" theory). Some commentators have suggested an alternative theory, in which an issuer's management uses analyst research as a "booster shot" to maximize securities prices at a particularly convenient time, such as the expiration of lockups on insider shares (usually occurring 180 days after the offering), which allows management to sell off at inflated prices (Aggarwal, Krigman, and Womack 2002; Coffee 2002; U.S. Senate q4 2002).

While these theories and others like them—variations on the theme of analysts as instruments of fraud—have an intuitive appeal, there are some questions that they leave unanswered. Why is it, for instance, that markets would not discount analyst bias or turn to more credible sources of information? Analyst conflicts of interest were certainly well known: q5 as one court recently held (*In re Merrill Lynch & Co. Research Reports Securities Litigation,* Case No. 02-CV-7854 [MP] [S.D.N.Y., July 2, 2003]), conflicts of interest in analyst research were common knowledge, even predating the 1990s tech boom. And conflicted analysts did not exist in a vacuum; independent research analysts and the financial media should have been able to win out over biased analysts, especially since performance ratings of analysts were publicly available. Even absent truly independent information sources, we might suppose that negatively conflicted analysts would counteract the positively biased ones—which did indeed happen in multiple documented instances, where an analyst, his firm having lost the underwriting mandate, downgraded the issuer's rating.[12]

As it turns out, there is preliminary evidence that conflicts of interest are not associated with either less accurate or more optimistic forecasts. q6 Cowen, Groysberg, and Healy (2006, p. 119) find that "analysts at firms that find research through underwriting and trading activities actually made less optimistic forecasts and recommendations than those at brokerage houses, who performed no underwriting." Lin and McNichols (1998, p. 103) find that while underwriters' recommendations are more optimistic with respect to growth, earnings forecasts are the same, and that while underwriters are reluctant to downgrade clients, underwriters' "'Strong Buy' and 'Buy' recommendations are not overoptimistic relative

12. Ashok Kumar, of Piper Jaffray, retaliated for the loss of an underwriting mandate with negative ratings on eMachines, rechristening the company "sucker.com" (Burrows 1999). Similarly, Henry Blodgett, a Merrill Lynch analyst, downgraded GoTo.com on losing its mandate (U.S. Congress 2001, p. 60).

to those issued by unaffiliated analysts." Barber, Lehavy, and Trueman (2004) find that in bear markets, underwriters' buy recommendations underperform those of independent analysts, while underwriters' sell recommendations outperform; performance is relatively equal in bull markets. And it appears—according to some studies, though contested in others[13]—that markets discount bias. A recent study by Agrawal and Chen (2005) finds that while more conflict leads to more positive recommendations, market reaction is negatively correlated with the magnitude of conflict.[14]

While there is, as yet, no consensus on these findings, they do cast significant doubt on the fraud hypotheses. If analysts are unable to systemically mislead the market, theories of analyst fraud and booster shots dry up. But why, then, was analyst research so valuable to issuers? There is, to date, no theory of analyst conflicts of interest that explains the value of conflicted analyst research under efficient market conditions.

To provide such a theory is the goal of this paper. As I will discuss in the next section, the conflicted analyst research report proved to be a useful disclosure conduit—a signaling mechanism—for otherwise nonpublic information, which overcomes the barriers that the Securities Act would otherwise erect to such disclosure.

3. A THEORY OF CONFLICTED ANALYST RESEARCH AS DISCLOSURE MECHANISM

It is my thesis that the market for conflicted analyst research has benefits to the capital formation process. First, a commitment to produce favorable postoffering research acts as a disclosure mechanism, credibly communicating to investors positive nonpublic information about the issuer. Second, disclosure via analyst research is costly to the underwriter, and thus incurring these costs up front is a type of commitment mechanism that mitigates agency costs between issuer and underwriter. Finally, the market for analyst research took the form of a competitive

13. Bradley, Jordan, and Ritter (2005) find that after adjusting for timing of recommendation (underwriter recommendations occur immediately after expiration of the quiet period, while nonunderwriter recommendations generally occur later), market reaction to underwriter and nonunderwriter recommendations are the same.

14. Some authors have contended, however, that while markets do discount conflict, the discounting is less than complete. See Michaely and Womack (1999), who examined IPOs from 1990 to 1991.

auction among underwriters, possibly increasing competition in the underwriting industry.

3.1. Disclosure and the Securities Act

Issuers and underwriters are likely to have nonpublic information about the issuer; absent a way to communicate this information to investors, this gives rise to an asymmetric-information problem. At the extreme, where credible communication is impossible, the issuer experiences an adverse-selection problem (also known as the "lemons" problem; Akerlof 1970), in which good issuers, unable to communicate their positive information and obtain a good price for their shares, withdraw from the market, leaving only bad issuers.

I propose that the analyst research report provides a disclosure mechanism that encourages issuers to disclose more of this information about themselves. For any quantum of information, the issuer is faced with three alternatives: no disclosure, disclosure in the Securities Act prospectus, or disclosure in the analyst research report. Because of a high level of liability for prospectus disclosure and the high costs of making no disclosure (adverse selection), issuers choose to disclose via the analyst research report. Analyst research does not incur so much liability as to make disclosure overly costly but does incur enough liability to make truthful disclosure credible.

3.1.1. Asymmetric Information and the Analyst Signal. Just as the absence of liability can lead to an asymmetric-information problem, so too can overbearing liability. Consider the issuer's (and underwriter's) choice between disclosure and nondisclosure in the prospectus: disclosure carries an expected cost of strict-liability litigation, while nondisclosure incurs a cost in the form of lower offering proceeds. Where the marginal cost of disclosure exceeds the benefit, some information remains—optimally—undisclosed.

The Securities Act imposes strict liability on the issuer, underwriter, and management for material misstatements in public-offering communications,[15] and it appears that this liability does, indeed, have a significant chilling effect on disclosure: Wander (2003) and Roddy (2003) provide accounts of industry disclosure practices. This is especially true for forward-looking information and projections. Disclosures

15. All but the issuer have the benefit of a due diligence defense, although for company insiders showing due diligence can be quite difficult. See Securities Act of 1933, secs. 11 and 12.

of uncertain information, such as future expectations, under a strict-liability regime are subject to a great deal of risk; if those expectations appear later to have been unreasonable or attendant risks were inadequately disclosed, shareholders may recover their losses.[16] (The underwriter may also have useful information to disclose—underwriter "certification" of the issuer as described in Booth and Smith [1986].) Although the SEC no longer prohibits management's projections[17] and despite the presence of limited safe harbors such as Rule 175 and the Private Securities Litigation Reform Act (Pub. L. No. 104-67, 109 Stat. 737 [1995]),[18] the consensus of the securities industry practice is that forward-looking information is still too dangerous to include, as "even the slightest misstatement regarding predictive expression" will result in securities litigation (Wander 2003, p. 615; also Roddy 2003, p. 476). Management, especially, may wish to avoid any risk of personal liability.

Prospectuses contain a dearth of positive information of a nonhistorical nature; forward-looking statements are either overwhelmingly negative (as in the risk factor discussions) or else so vague as to be meaningless. A quick look through virtually any prospectus reveals pages and pages of risk factor disclosure and disclaimers, which would be, if taken as meaningful, adequate to scare off any investor. Faced with dire warnings of varying but unknown importance, the investor again is at an informational disadvantage vis-à-vis the issuer and underwriter.

Thus, it appears that some particularly important disclosure is being chilled by the Securities Act liability. But if there was a method of disclosure that incurred a lower level of liability while still remaining credible to investors, then issuers and underwriters could disclose that information. Here is where analyst research is useful: it allows widespread public communication of inside information from issuer and underwriter to the marketplace, and it incurs a lower level of liability—fraud liability—than the Securities Act.

Signaling via analyst research is a method of regulatory arbitrage: the issuer and underwriter choose the level of liability that maximizes

16. Spindler (2005) describes the mechanism of strict liability in the securities fraud context; Bohn and Choi (1996), Choi (2004), and Perino (2003) provide data that suggests that suit and settlement are uncorrelated with actual fraud and are precipitated merely by price declines (that is, poor firm performance).

17. The SEC did, in fact, prohibit projections up until the early 1970s. See Wander (2003, p. 555).

18. The 1933 act's forward-looking disclosure safe harbors (Securities Act of 1933, sec. 27A[b][2][D]) are not applicable to IPO issuers.

their expected utility from the offering. The analyst report has distinct advantages over other permitted forms of disclosure. Unlike prospectus disclosures or roadshow presentations,[19] analyst reports are subject only to fraud liability[20] and are public, being made to the entire market rather than just a select group of investors. This means that an analyst report gives a right of action for fraud to all investors rather than only those present at the roadshow (similar problems would plague any sort of secret communications to investors that stay below the SEC's radar). Unlike "free writings"[21] or other offering communications by the issuer, analyst reports involve a repeat player—the underwriter—who is able to commit prior to the offering to publish a positive research report (thus sending the signal prior to the offering) and who brings an extra level of credibility to the table because of its reputation and potential legal liability. The underwriter can, in a sense, put its money where its mouth is by carrying through on the offering with a high analyst rating.

3.1.2. Mechanics of the Analyst Research Signal. The analyst research signal takes a somewhat circuitous path to reaching the market, since the commitment to publish positive research actually occurs before the underwriter has nonpublic information about the issuer. Behind the veil of ignorance, underwriters make bids for an issuer's business by committing to publish positive research reports on the issuer. This commitment may take the form of an explicit (though probably legally unenforceable) promise to the issuer, as well as the underwriter's past history of supporting underwriting deals with positive research coverage. The latter is observable to issuer and investor alike; for example, Morgan Stanley won Viasystem's initial public offering (IPO) largely on the record of its star electronics analyst, Shelby Fleck, explicitly trumpeting her

19. The roadshow is a series of oral presentations made around the country (or, sometimes, world) by the issuer and underwriter to groups of large institutional investors in advance of the offering. Roadshow presentations are permitted as oral offers of securities once a registration statement has been filed. They are subject to strict liability under section 12 of the Securities Act.

20. Liability exists for fraudulent research under the Securities Act of 1934, secs. 15(c)(1) and (2) and Rule 15c1-2, which prohibit deceptive, manipulative, or fraudulent practices by brokers and dealers that induce, or attempt to induce, the purchase of a security. Liability also exists in Rule 10b-5, which similarly prohibits fraudulent behavior in connection with a security.

21. Free writings are written communications, subject to fraud liability, that the issuer may make subsequent to being declared effective by the SEC. A copy of the final prospectus must precede or accompany the free writing. Dissemination of analyst reports can be deemed free writings as well.

percentage of buy ratings (see Smith 2003). Holding constant other factors (such as the strength of the underwriter's selling network), the issuer picks the underwriter who offers the highest bid (see Krigman, Shaw, and Womack 2001).[22] The issuer awards the underwriting mandate to the chosen underwriter, and the issuer and underwriter begin the offering preparations, which include due diligence and work on the statutory prospectus. At this point, the underwriter becomes availed of inside information on the issuer and can update its opinion as to the costs of providing a favorable aftermarket research report. If the expected costs, in terms of legal liability (and collateral reputational damage), are too high, the underwriter can discontinue or delay the offering. If expected costs are acceptable, the underwriter continues the offering, and investors take this as confirmation of the optimism of the report. Investors, seeing this commitment to produce positive research, are aware of the capital that the underwriter has staked on the issuer and know that the underwriter faces high costs in the event that the report is found to be fraudulent, which leads them to pay a higher price.

For seasoned issuers, the process is largely the same, except that bidding may take the form of current research reports. For example, both Ashok Kumar of Piper Jaffray and Henry Blodgett of Merrill Lynch reportedly inflated ratings of seasoned issuers in the hopes of winning underwriting mandates, only to deflate them later on when the mandates went to other investment banks.

Once the underwriter wins the underwriting mandate and gains inside information about the issuer, it faces the following choices: (1) go through with the offering and fulfill its commitment to publish positive research, (2) go through with the offering but renege on the commitment to publish positive research, or (3) pull the offering entirely. With the first option, the underwriter preserves its reputation for underwriting offerings with positive research but faces potential legal liability on the positive report. The second option, reneging on the research commitment, hurts the underwriter's credibility with future issuers and future investors.[23] Reneging degrades the quality of the signal to investors, as investors are no longer certain that an offering carries the underwriter's full imprimatur. The third option, pulling the offering entirely, may hurt

22. The issuer may attempt to avoid bids that are unrealistically high, since this may lead the underwriter to renege later on.

23. Undoubtedly, this also greatly annoys the subject issuer's management, since it sends a strong negative signal about the issuer—but unless the issuer is a repeat player, underwriters should not care about this.

the underwriter's credibility with issuers (its record for accomplishing offerings is degraded) but preserves the integrity of the positive signal to investors. For example, an underwriter who sometimes pulls offerings can still maintain a record of always supporting completed offerings with positive research. Because the second option negatively affects the ability of underwriters to send a positive signal to investors, we should expect it to occur relatively infrequently—and, in fact, this does appear to have been the case, with underwriters reluctant to downgrade recent equity offerings, and offerings often being pulled or delayed (as opposed to priced lower) when negative information about the issuer surfaces in the diligence process (see Barber, Lehavy, and Trueman 2004). Thus, there is a momentum of sorts in how an offering proceeds; expectations regarding the offering are largely shaped by the time the issuer awards the underwriting mandate.

Verification of the analyst signal is accomplished through fraud penalties administered through the courts as well as other less formal enforcement mechanisms—including SEC investigatory powers and NASD and stock exchange monitoring. All these mechanisms can, through the investigative or discovery processes, determine ex post whether the analyst's research report was truthful—that is, whether it was backed up by information in the analyst's possession. Successful enforcement has been prominent; for example, Jack Grubman, Henry Blodget, and the 10 investment banks covered in the Global Analyst Settlement were all heavily penalized and publicly censured. If expected punishments are too low, this means that the signal is weak and some degree of the asymmetric-information problem will remain. However, even if this is the case, there may be ways to leverage up expected penalties, such as by exaggerating the buy recommendation (inventing hyperbolic ratings such as "aggressive buy" or setting higher price targets), which makes an ex post determination of liability more likely or expected punishments higher, in order to increase the signal's credibility to investors.

3.1.3. Insufficiency of Underwriter Reputation Alone. One might ask, why is any explicit signal needed? Why not attempt to rely solely on the underwriter's reputation for pricing deals fairly? For instance, a particular underwriter may underwrite offerings only when the nondisclosed information is highly positive; such an underwriter could develop a reputation for underwriting only good deals.

In theory, reputation of the underwriter alone could suffice to communicate the value of the issuer's shares, with no overt disclosure at all;

but in the real world, it is quite difficult to determine whether offerings from one underwriter are systemically better than those of another. Post-offering declines in price are not necessarily indicative of underwriter cheating—attempting to pass off a bad issuer as a good one—since underwriters are not omniscient and generally rely on the market book-building process to arrive at a price. Other factors—such as price correlation among different issuers (such as those in the same industry), agency costs within the underwriter (see Henderson and Spindler 2005), and the fact that it is difficult to control for risk and still get meaningful statistical results—may make it difficult or impossible to tell whether any one underwriter is giving out generally good or generally bad deals. A good example of these measurement problems comes from the finance literature, in which a controversy persists over whether IPOs tend to underperform relative to seasoned companies, owing to precisely these sorts of complications. The form of measurement used, as well as the time-period studies, greatly affects whether one observes long-term underperformance (see Ritter and Welch 2002, p. 1820; Gompers and Lerner 2003). So reputation by itself will probably not suffice. The analyst research signal, on the other hand, has distinct advantages: it incorporates the reputational capital of the underwriter, adds the weight of potential legal liability, and provides a way, through litigation and discovery, of directly verifying the signal's accuracy.

3.2. Agency Problems

One might ask why a credible commitment between the underwriter and issuer is needed up front—why commit ahead of time? After all, given the analysis in Section 3.1 above, it is plain that under some circumstances an underwriter may overbid in an offering, yet the penalty from withdrawing would be higher than the expected legal penalty from following through. To this extent, then, it would seem better if precommitment is not required. However, as observed above, since the report cannot come out until after the offering, investors must have certainty before the offering that a positive report will be issued; otherwise, the signal is without meaning.

There is a second reason, apart from the strength of the disclosure signal, why precommitment is necessary: it resolves an agency problem between issuer and underwriter. Issuers and underwriters have different incentives arising out of the public offering, which, combined with an inability to write and enforce complete contracts in the underwriting context, gives rise to an agency problem. Publicly precommitting to

publish a positive analyst research report effectively binds the underwriter to expend more resources in selling the issuer's securities, which results in greater proceeds to the issuer.

We would expect the issuer generally to seek the highest offering price possible for its shares, perhaps even in excess of the "correct" market price. Issuers get the bulk of the offering proceeds, and an issuer's existing shareholders face dilution costs from a low offering price. The underwriter, on the other hand, receives only a set percentage (almost always 7 percent—see Chen and Ritter 2000) of the gross issue amount as a fee.[24] At the same time, despite its limited upside, the underwriter faces the same amount of potential liability (though subject to a defense of due diligence) as does the issuer.[25] And actual costs of marketing the deal are also borne disproportionately by the underwriter: the underwriter may incur liability for statements made in the course of marketing the security to investors. Furthermore, under standard underwriting agreement terms, the underwriter is the purchaser of last resort of the issuer's securities, which means that if pricing is too high to clear the market, the underwriter is on the hook for the remaining amount. Finally, the underwriter may have the opportunity to recover some of the money that is left on the table[26] from its institutional investors in the form of kickbacks or tie-ins, essentially methods of funneling offering proceeds to itself (Ritter and Welch 2002, pp. 1808–15).

Thus, issuers would systematically choose a higher offering price than would underwriters, and underwriters would choose to spend less effort and resources in obtaining a high price for the issuer's shares. The issuer would want to contract, then, with the underwriter for a level of price and effort that maximizes joint welfare. Unfortunately, drafting such a contract is most likely impossible. Naming a precise price up front is impossible without a market test for the value of the issuer's securities; underwriters themselves rely on the book-building process to approxi-

24. Under NASD rules, underwriting commissions generally cannot exceed 10 percent. See NASD Rule 2710.

25. Section 11 of the 1933 act provides that the underwriter may be found liable for up to the full amount of the securities that the underwriter underwrote. Both the due-diligence defense and customary indemnification agreements can be difficult to assert effectively. See, for example, *Escott v. Barchris Construction Corp.*, 283 F. Supp. 643 (1968), which describes an underwriter's responsibility of due diligence; and *Globus v. Law Research Service, Inc.*, 418 F.2d 1276 (1969), in which an underwriter's indemnification agreement is voided where the underwriter had knowledge of a material misstatement.

26. That is, first-day underpricing of offerings. On average, IPO securities end the first day of trading 18 percent higher than the offering price. See Ritter and Welch (2002).

q9 mate demand.[27] The same measurement problems that make it difficult for investors to tell whether a particular underwriter offers good deals make it difficult for issuers to tell whether underwriters maximize offering proceeds. All this might make it impossible for the underwriter to commit to an offering price ahead of time.[28] Similarly, the issuer is not able to monitor the underwriter's selling efforts, as most of these activities, such as working the selling network and managing the book-building process, happen outside of the issuer's purview. While there are some observable metrics, such as oversubscription levels, these present an incomplete picture and are also subject to manipulation by the underwriter.

However, the analyst research report provides a partial answer to this problem. The underwriter can commit to seeking a higher price for the offering by incurring some of the selling costs up front. Underwriters do this by issuing a favorable research report (for seasoned issuers) and by credibly committing to provide positive research coverage in the post-offering environment (for both seasoned issuers and IPOs). This sends a signal to investors about the issuer's underlying quality, as discussed above, which raises demand for the offering. It also, in a highly observable fashion, shows the issuer that the underwriter has incurred costs and has bound itself to seeking a higher offering price. Public precommitment to positive research increases the penalties for reneging on the research commitment and also increases the penalty for failure to complete the offering successfully, since the underwriter has already opined as to the quality of the issuer. If penalties for failure are higher, then the research precommitment leads the underwriter also to exert a greater amount of unobservable effort in marketing the offering.

27. Book building refers to the process whereby underwriters solicit nonbinding indications of interest from investors in advance of the offering (binding agreements to purchase securities would be illegal under section 5 of the Securities Act). This allows the underwriter to tentatively feel out demand for the securities. Because of the ability to back out of these nonbinding indications of interest, underwriters seek to have a deal many times oversubscribed in order to guarantee moving all of the securities at the offering price.

28. In practice, the formal underwriting agreement is almost entirely for the benefit of the underwriter. Such agreements do not specify or commit to an offering price, and they are generally not signed until immediately prior to effectiveness and distribution of the securities, which makes the ex ante legal commitment to underwrite at all fairly insignificant. See Soderquist and Gabaldon (2003, p. 35).

3.3. Competition among Underwriters

Underwriters competed with one another for underwriting business by offering up positive research to issuers in what appeared to be a competitive bidding market (Krigman, Shaw, and Womack 2001). As the research offered is costly to the underwriter and beneficial to the issuer, this competition among underwriters may have the effect of transferring wealth from underwriters to issuers. In other words, if competition in the securities underwriting industry is imperfect, then competition in the research dimension may result in a more competitive equilibrium with greater surplus to issuers and an overall lower cost of capital. Conversely, to ban such practices, as the NASD and NYSE have done, is to benefit the investment banks who underwrite securities.

It is difficult to say how competitive the underwriting industry is. There is some strong circumstantial evidence of implicit collusion (Lowenstein [1997, p. C1] quotes an unnamed head of underwriting as saying, "[W]e'd be cutting our own throats to compete on price"; *Wall Street Journal* 1999; Smith 2001). For one, underwriters generally do not compete on price. A study by Chen and Ritter (2000) finds that 90 percent q10 of underwritings between $20 and $80 million are pegged at exactly 7 percent. Very large offerings, or offerings in which the issuer has particular leverage over the underwriter, will sometimes have lower underwriting commissions (such as Berkshire Hathaway and AT&T's Lucent), but otherwise pricing seems to be set. By way of comparison, offerings outside of the United States, especially in Asia, tend to have dramatically lower underwriting commissions, as do U.S. offerings of debt. But in general, underwriters appear to be quite resistant to price competition,[29] even if they do not explicitly conspire to collude.[30]

Underwriters may compete on the basis of other factors, such as reputation, extent of distribution network, prestige, and ability to provide aftermarket support. However, this may not be competition per se: the fact that there might be an underwriter pecking order, and some degree of jockeying within that pecking order, does not mean that underwriters are earning only competitive returns. It is also problematic that many of these potential dimensions of competition may be unob-

29. Lowenstein (1997) recounts the story of a small issuer who offered three separate underwriters an 8 percent commission if the offering went well and 6 percent if it went badly. All three underwriting firms refused to deviate from the 7 percent standard.

30. The U.S. Justice Department's antitrust division did investigate investment banks for fixing underwriting pricing but was unable to find any evidence of an explicit agreement not to compete. See Smith (2001).

servable: the extent to which the underwriter draws on its distributional network, spends its reputational capital, or provides aftermarket support—all costly actions—may be impossible for issuers to monitor with precision.

From a public choice perspective, it is interesting to note that investment bankers had significant opportunity to affect implementation of the analyst conflict rules. Neither the Sarbanes-Oxley Act nor SEC Regulation Analyst Certification would have necessarily banned conflicted research, requiring instead only clear disclosure. Prohibition comes instead from the NASD, the NYSE, and the Global Research Analyst Settlement. Investment banks are chief constituents of the NASD and the NYSE and were also parties to the Global Research Analyst Settlement, which raises the possibility that the underwriting industry maneuvered the rule making to their advantage.[31] Investment banks appear glad to be rid of analysts, as it was costly not just in terms of analyst salaries but also in the legal and reputational exposure incurred; analyst jobs have been scaled back across the industry, and many that remain are being outsourced overseas (see Merchant and Wells 2003; Brown 2003). While one cannot say conclusively that the prohibition represents regulatory capture, it is a possibility that is consistent with the evidence.

4. EFFECTIVENESS OF THE ANALYST SIGNAL AND PRODUCTIVE REFORMS

4.1. Noise in the Analyst Research Signal

A fundamental problem with conflicted analyst research is that it may tend to be noisy. The signal itself is often quite imprecise: price targets and buy, hold, or sell recommendations may do a poor job of conveying complex, multidimensional information to the marketplace. Investors who buy on the basis of the signal are doing so largely on the underwriter's commitment to publish positive research, which cannot be tailored to the specific information that the underwriter possesses.

The signal may be costly to interpret correctly; from the investor's perspective, properly calculating the incentives of the analysts, issuers, and underwriters may be quite difficult. Poorly informed investors might,

31. Investment banks have influenced regulation in their favor in the past. Mahoney (2001) argues convincingly that several provisions of the Securities Act of 1933 were the result of rent seeking by established banks, as these rules quashed upstart competition in the industry.

for example, overestimate the penalties imposed on underwriters for fraud and infer a stronger signal of issuer quality than is proper. The situation becomes exacerbated if we suppose that the issuer can make additional side payments to the underwriter to increase positive bias.[32] Mandatory rules requiring disclosure of all compensation may be required to account for this possibility. Similarly, the willingness of some individuals to engage in fraud adds noise to the system. Some analysts and underwriters may not believe (whether correctly or not) that they will be subject to significant legal or reputational penalties. Or heterogeneity of tastes, discount rates, and appetites for risk may mean that a minority of individuals are willing to engage in fraud even when expected penalties are adequate to deter the majority of actors.

While fraud did occur in recent years, it does appear that enforcement and verification mechanisms function fairly well. For example, the Global Research Analyst Settlement resulted in fines of $1.4 billion, some particularly bad individual perpetrators have been banned from the securities industry, and other enforcement actions and settlements are still ongoing. Prosecutors and courts appear capable of making a determination that analysts were committing fraud, generally by inspecting communications within the firm and to valued clients and taking testimony from others involved in the offering. Still, the number of high-reputation investment banks implicated in the analyst scandals suggests that the signal's noisiness is a cause for concern.

4.2. How Might the System Be Improved?

A first-best solution to inefficiencies in the public-offering process would be to liberalize disclosure rules: allow the issuer and underwriter to directly disclose nonpublic information subject only to fraud liability, as opposed to the current regime of strict liability. It may be practically useful to have such disclosures in a separate document so as to minimize uncertainty over which liability standard applies to which statements. This has advantages over the current analyst signal of precommitment, as it would be explicit disclosure that would occur prior to the offering.

But if such a first-best solution is not readily forthcoming from Congress and the SEC (which is probably the case given the current trend of increasing financial regulation), then a more incremental solution

32. A particularly bizarre example of side payments is the receipt by Phua Young, a former Merrill Lynch analyst, of private investigative services (to spy on his fiancée) from Tyco (Maremont and Bray 2004).

would be to attempt to strengthen the analyst signal rather than eliminate it entirely. If incidences of fraud appear to be too common, such that investors are unwilling to rely on the analyst signal, then raising expected fraud liabilities would restore credibility. However, the danger of raising expected penalties too high is that doing so could deter disclosure of positive information. A safer alternative might therefore be more explicit mandatory disclosure of analyst conflicts of interest (for instance, disclosure of compensation agreement terms that key off underwriting deals), which would allow the market to gauge individual analyst credibility with greater certainty.

However, the actual reform implemented under the aegis of the Sarbanes-Oxley Act is flat-out prohibition of analyst conflicts of interest. This prohibition, absent an overhaul of the liability provisions that deter disclosure of positive information, exacerbates asymmetric-information problems and agency costs and reinforces collusive tendencies in the underwriting industry. This result is almost certainly counter to the intent of Congress and detrimental to the functioning of the U.S. capital markets.

5. CONCLUSION

This paper argues that conflicted analyst research provided significant benefits. First, the analyst signal provided a way to communicate positive information that would have otherwise been deterred by the strict-liability provisions of the Securities Act, which helped to solve the asymmetric-information problem. Second, the underwriter's precommitment to publish positive analyst research reduces agency costs that arise from the issuer's inability to write complete contracts and inability to monitor the underwriter. Analyst research provided a way for the underwriter to commit to exert more effort and incur greater costs in pushing the offering. Finally, conflicted analyst research may have improved competition in the underwriting industry; competition in the dimension of analyst research may have substituted for competition in other dimensions such as price, which appears to be generally fixed.

While the analyst signal provided significant benefits, it is a noisy, second-best solution to regulatory distortions. An optimal solution would be to liberalize the disclosure and liability provisions of the Securities Act to fix the negative bias of statutory disclosure. Instead, however, the Sarbanes-Oxley reforms prohibit conflicted analyst research,

which hurts investors and issuers alike and raises the costs of capital formation.

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1 Au: "securities exchange" changed to "Securities and Exchange Commission"

2 Au: Italics removed throughout because it is not JLS style to use italics for emphasis or definition of terms.

3 Au: Please explain 232, 5 at the end of note 9.

4 Au: Coffee 2002, U.S. Senate 2002, or both?

5 Au: Case No. 02-CV-7854 is In re Merrill Lynch & Co. Inc. Global Technology Fund Securities Litigation; does Merrill Lynch & Co. Inc. Research Reports Securities Litigation have the same case number?

6 Au: Cowen et al. cite changed to published version, OK?

7 Au: When you refer to "Securities Act," do you mean 1933, 1934, Sarbanes-Oxley, or PSLRA? Can we say "hereafter ..."?

8 Au: In note 16, Spindler 2005 or forthcoming? If 2005, please add to reference list.

9 Au: In note 27, of 1933 or 1934 Securities Act?

10 Au: 2000 correct for Chen and Ritter?

11 Au: Publication information for Aggarwal et al. 2002 correct?

12 Au: Please cite Barber et al. 2003 in text or delete.

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