

Investment Banks, Scope, and Unavoidable Conflicts of Interest

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There are certain sweet-smelling sugar-coated lies current in the world which all politic men have apparently tacitly conspired together to support and perpetuate. One of these is, that there is such a thing in the world as independence: independence of thought, independence of opinion, independence of action. Another is that the world loves to see independence—admires it, applauds it.

—Mark Twain¹

The investment banking community has recently been the object of scorn, both on the regulatory front and in the press. Critics have alleged a distinct lack of independence in banks' behavior and policies with regard to the objectiveness and independence of the research reports and analyst recommendations. Retail investors, institutional investors, federal and state regulators, and Congress have expressed outrage over the conflicts of interest that can exist in these large banks. In particular, they are disturbed that these conflicts can lead analysts to craft research opinions that differ from what would be produced by a dispassionate and economically disinterested party.

The issue came to a head in April 2003, when ten investment banks agreed to a set of behavioral and structural reforms, in addition to fines and penalties of more than \$1.3 billion, to settle charges brought by federal and state regulators and self-regulatory organizations (SROs) concerning conflicts of interest. These reforms included the physical separation of research and investment banking, changes in the nature of analyst compensation contracts, and strictures prohibiting analysts from attending road shows. Investment banks are also required to offer cus-

tomers access to the research products of at least three independent research firms for five years.

These conflicts of interest are nothing new, and their existence was widely known throughout the financial community. The conflicts are a consequence of the function of investment banks, which intermediate the interaction between issuers and investors in capital markets. Why the issue came to the fore in the last few years is debatable, but certainly contributing factors include the sharp market decline after March 2000, the egregiousness of certain revelations about e-mails and business arrangements involving the banks, and the compensation levels and brashness of various high-profile bank employees. The public was outraged, and it would have its pound of flesh.

The purpose of this paper is not to debate whether analysts should be allowed to privately disparage stocks while publicly recommending them as "strong buys" or whether senior executives of corporations should receive lucrative allocations of initial public offering (IPO) shares as inducement for sending corporate finance business toward the underwriting investment banks. Such actions may distort capital markets, and they should be discouraged. My concern here, however, is to consider in some detail

what we really know about the nature of the conflicts of interest within investment banks and how, if at all, these conflicts have actually harmed investors. I do this by looking at the academic evidence on analysts and their work and how the stock market reacts to their pronouncements. I also consider the effects of certain other institutional arrangements and potential conflicts of interest that exist in investment banks and consider how these affect banks' practices and incentives. I then use this analysis to examine some of the solutions imposed by the regulators to see if these solutions are sensible and cost effective and can reasonably be expected to remedy the alleged harms.

In the pure investment banking or corporate finance relationship, investment banks' fundamental purpose is to lower the frictions involved in issuing new securities.

What Do Investment Banks Do?

In their book *Doing Deals*, Eccles and Crane define the function of an investment bank as "mediating the flow of assets between issuers and investors" (1988, chap. 2). In the pure investment banking or corporate finance relationship, investment banks' fundamental purpose is to lower the frictions involved in issuing new securities.² These frictions arise because the two primary parties to the transaction are generally geographically separate, have no or only limited knowledge about the other party, and have opposing interests in the precise terms of the transaction. For example, issuers prefer a higher price for their securities while investors would prefer to buy the paper at a lower price.

Institutionally, however, banks do far more than aid in the issuance of securities. Though issuance is an important corporate finance function, banks also provide advice in mergers and acquisitions and aid in designing customized securities to suit issuers' needs through structured finance. Banks generally have extensive sales and trading operations across asset classes and frequently operate money management operations on an agency basis for institutional clients. For the purposes of this paper, it is important to note that a large class of investment banks also have retail operations, providing brokerage services to individual investors. Finally, banks

may have proprietary or principal operations, either in trading or merchant banking.

Abstracting from these institutional activities, one can see that banks perform a much smaller set of basic financial functions. Consistent with the functional framework of Merton and Bodie (1995, chap. 1), investment banks perform five of the six basic functions that they say are required of any well-functioning financial system. These functions are (1) pooling resources and subdividing shares, (2) transferring resources across space and time, (3) providing mechanisms to manage risk, (4) providing information, and especially prices, needed to coordinate decentralized decision making in the economy, and (5) providing mechanisms to solve problems of asymmetric information, agency problems, and incentives.³ Notable for the purposes of this discussion is Merton and Bodie's emphasis on the information-based functions required of financial systems. As applied to investment banks, the tasks of pricing securities and brokering information between counterparties to a transaction, whether a share issuance or a capital markets transaction, are vital to banks' operations.

The completeness of the financial functions offered within a large integrated investment bank is a consequence of the scope economies that arise from housing various institutional functions under one roof. For example, for a successful issuance of new stock, the bank must be able to distribute new shares into the hands of its investment clients. To execute this function well, the shares should be distributed broadly and held by an investor base whose traits are acceptable to the corporate issuer. Accomplishing this function requires an established network with the trading desks and portfolio managers of large buy-side investment firms. Corporate issuances are too infrequent for relationships with banks to grow by themselves, but the day-to-day trading operations of banks naturally tie the bank to the institutional investor. Similarly, the information produced by the analyst who works in the research department can be of use to the bank's investment bankers, the proprietary trading operations of the bank, the block trading operations of the bank, and the bank's retail and institutional clients.

Of course, not all of the scope economies discussed above are permitted under the law. The reason is that they present substantive conflicts of interest for the bank. These conflicts are unavoidable for any bank that chooses to be in the broad menu of the institutional businesses discussed in the paragraphs above. By operating in these business lines, the banks in turn perform some or all of the five financial functions

TABLE 1**Securities Industry Income Statement**

Revenue	In \$millions			As a percentage		
	1999	2001	2003	1999	2001	2003
Commissions	29,310.5	26,825.2	25,661.4	16.0	13.8	17.8
Trading gain (loss)	36,422.8	24,914.1	23,136.5	19.9	12.8	16.0
Investment account gain (loss)	2,379.2	297.5	2,115.7	1.3	0.2	1.5
Underwriting revenue	16,026.3	15,630.9	15,090.0	8.7	8.0	10.4
Equity underwriting revenue	3,791.3	3,921.0	3,697.8	2.1	2.0	2.6
Mutual fund sale revenue	6,663.4	6,329.0	6,064.9	3.6	3.2	4.2
Fees, asset management	11,450.3	13,196.6	11,761.6	6.2	6.8	8.1
Research revenue	156.6	183.6	170.0	0.1	0.1	0.1
Commodities revenue	-8,723.3	4,907.6	-1,902.4	-4.8	2.5	-1.3
Other revenue related to the securities business	66,719.2	79,714.8	47,898.3	36.4	40.9	33.1
Other revenue	9,546.5	9,923.2	9,743.1	5.2	5.1	6.7
Total revenue	183,367.3	194,766.2	144,516.0	100.0	100.0	100.0

Source: Securities Industry Association, 2003

delineated by Merton and Bodie. Though formal and obvious structures that violate conflict of interest rules may readily be prohibited, subtle ways to circumvent the prohibitions, especially restrictions based on information flow, may arise. This latter class of conflict-of-interest concerns may be hard to police as they do not directly involve forbidden trades or transactions, such as might occur if, for example, a bank-managed mutual fund executed its stock trades using an internal trading desk and received prices inferior to those in the broad stock market.

As profit-maximizing entities, banks have their own reasons to exercise control over conflict-of-interest matters. If clients lose faith in their ability to get a fair deal at the bank, business will founder. Senior management will therefore put in place mechanisms to temper these conflict concerns. However, such mechanisms do not mean that factors such as rich performance bonuses, contingent compensation, or moral hazard concerns at the level of the employee or trading desk cannot lead to serious issues.

To gauge the potential severity of the conflict-of-interest problem, we can examine the relative size of the various business segments of the securities

industry as a whole. Table 1 reports the revenue for the investment banking, trading, proprietary trading, underwriting, asset management, and research segments of the business for 1999, 2001, and 2003. Several features of these data are immediately clear. The first is that the underwriting business makes up only about 10 percent of the revenue for investment banks in 2003. Trading commissions, proprietary trading, and mutual fund and asset management fees all generate more revenue than underwriting. At least at an aggregate level, from a conflict-of-interest perspective there does not appear to be a profit-maximizing reason to sacrifice other revenue segments in favor of the revenue from investment banking.

Table 2 examines similar data on a firm-level basis for three large integrated banks: Merrill Lynch, Morgan Stanley, and UBS. Though the firms themselves differ in how they choose to do business, for each of these banks investment banking is less than 15 percent of the revenue stream. Yet all three of these firms have been part of settlements with regulators for conflicts of interest between research and investment banking.

1. Mark Twain's autobiography, as quoted by Benn Steil in *Securities Industry News*, August 25, 2003.

2. For reasons of brevity and clarity, I will use the term "investment bank" interchangeably with the term "bank." Where there is danger of confusion, I will refer explicitly to a "commercial bank."

3. The final function, clearing and settling payments, is only partially done by investment banks in the United States. While investment banks can have huge clearing operations, it is commercial banks that are generally regarded as the window into the U.S. payment system.

TABLE 2

Revenue Breakdown for Three Large Banks (Percent)

Function	Merrill Lynch	Morgan Stanley	UBS
Asset management	23.2	19.8	55.2
Commissions	22.2	15.9	0.0
Principal transactions	15.2	33.2	0.0
Investment banking	13.1	13.1	6.5
Net interest profit	20.2	15.5	0.0
Other	6.1	2.4	38.3
	100.0	100.0	100.0

Note: The categories of commissions, principal transactions, and net interest profit were not separately reported in the UBS filings. These figures are lumped into the "other" figure.

Source: Merrill Lynch 2003 10-K, Morgan Stanley 2003 10-K, UBS 2003 Annual Review

It is somewhat of a puzzle to understand why sophisticated firms would willingly dissipate their business reputations in large segments of their business to favor revenue streams from smaller business segments. A complete exploration of the nature of these conflict-of-interest violations is beyond the scope of this paper, and I will take as given the fact patterns described in the various regulatory settlements and pronouncements over the last few years. What is clear is that the scope economies that arise from housing the customary business lines of investment banks under one roof lead to clear conflicts of interest. In the case of IPOs, a bank is asked to serve two masters, the issuer and the investors. As such, the conflicts are endemic. In the next section I will explore what the academic literature has to say about market reaction to these conflicts.

The Conflicts: Institutional Practice and Academic Evidence

Corporate issuance versus research. Before considering the evidence on analyst conflicts, it is worthwhile to consider the nature of the sell-side analyst's job. The job falls into two parts. The first is the set of tasks that are the acknowledged to be customary part of the analyst's job. This includes developing an expertise in the covered firms and about the industry in which they operate. This expertise extends to include competitors, suppliers, customers, etc. With this knowledge the analyst will customarily make forecasts of future earnings as well as recommendations on the posture investors should take toward covered stocks. These recommendations are usually some variant of strong buy/buy/hold/sell/strong sell. In addition, analysts will talk with buy-side customers to share ideas with them and to assist them in selecting portfolio securities.

The second class of tasks is the de facto unacknowledged tasks of the analyst. These include various types of information brokerage, including arranging for investor visits with executives of covered companies or perhaps with executives of corporate finance clients of the bank. Especially for smaller buy-side shops that are unable to get the attention of their portfolio companies, this last function is a great service to the portfolio managers. Conversely, the analyst will work with the investment banking side of the house and may assist in evaluating firms for banking deals or due diligence work or in executing various types of corporate finance mandates. It should be noted that these tasks do not apply just to equity analysts. Though the tasks and nature of the work product differ, much of what is said here applies for fixed-income analysts as well.

In the above situations, analysts may find themselves in conflict-of-interest situations in which they are representing the interests of two parties whose interests are by definition not aligned. The prime example of this conflict is the role the research analyst plays in landing investment banking mandates. That analysts consider this a vital aspect of their job has been widely known for years. In Galant (1992), an analyst at a major sell-side firm admits to spending as much as 80 percent of her time on investment banking research. Senior management at another bank stated that "one of the things we sell is research" and that research is critical to wooing corporate clients. Management of issuers appears to understand this fact as well because the article quotes the CFO of one firm who interviewed not only the bankers but the analysts of six banks when shopping for an underwriter. Even more surprising are the analyst compensation arrangements discussed in the article, in which

some banks pay 5 to 10 percent of the net underwriting fee to the analyst responsible for landing new underwriting mandates.

The existence of these arrangements is supported by the work of Eccles and Crane (1988) in their book on how investment banks do deals. In a chapter on the bonus process, the authors discuss how analysts are paid. They point out that in all the firms they studied, research was not regarded as generating revenue but rather as a cost center. Money to pay research bonuses was therefore supplied by other revenue-generating functions such as sales and trading and investment banking. The authors observe that such a structure serves to strengthen the ties between research and the source of bonus revenue. Interestingly, Eccles and Crane found that it was the medium-sized firms, and not the largest firms, where the banking-research tie was the strongest and the compensation schemes most intertwined. The authors speculate that this finding occurs because the corporate client relationships were not as strong in the medium-sized firms as they were in the largest banks.

These working and compensation arrangements appear problematic. More interesting, however, is financial markets' ability to see through these conflicts and appropriately price shares in light of analyst pronouncements. To investigate this question, we turn to the academic record on analysts' earnings forecasts, analyst recommendations, and their interactions with stock returns and underwriting mandates.⁴

We first consider what issuers look for when selecting an investment bank. According to the survey in Galant (1992), "74 percent of the CFOs involved in 1991's largest IPOs said they regarded the quality of the research department as a very important if not the most important factor in choosing a lead underwriter." These findings are corroborated by the study of Krigman, Shaw, and Womack (2001), who look at the reasons why issuers change underwriters between their IPO and a subsequent secondary offering. Among other things, Krigman, Shaw, and Womack find that the key reason for switching underwriters is to buy influential analyst coverage. When asked why they switched underwriters, 54.7 percent cited the quality and reputation of the research department/analyst as one of

the top three reasons for the switch. This reason was the one most frequently cited, with the exception of overall underwriter reputation. Thus, it seems clear that issuers actively seek out reputable analysts and research departments for their banking work. Ellis, Michaely, and O'Hara (2004) have noted, however, that when firms switch underwriters the new underwriters are generally more optimistic than the old and move to establish substantial market-making operations in the firm's equity, a result the authors attribute to the competitive nature of the banking industry.

The results above relate only to the general quality of the analyst and research group. In a recent

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study, Ljungqvist, Marston, and Wilhelm (2003) examine the 16,625 U.S. debt and equity offerings over a ten-year period to assess whether analyst recommendations or recommendation upgrades had an effect on a bank's propensity to win the underwriting mandate. After controlling for other effects, the authors "find no evidence that analyst recommendation behavior favorably influenced whether banks won either debt or equity mandates. Far more important appears to be the strength of the bank's relationship with the issuer as measured by the share of the issuer's past securities offerings (both debt and equity) underwritten by the bank, and to a somewhat lesser extent the strength of prior lending relationships" (p. 2).

Thus, the literature suggests that corporate executives favor the overall quality of the investment bank, and especially the quality of the research operation, when selecting an issuer. The underwriting mandate is not "bought" through the issuance of biased or overly optimistic research by the bank analyst.

4. The literature on the interaction between analysts, underwriters, and stock returns is voluminous, and it is not possible to even survey that literature here. Ritter and Welch (2002) have a survey of IPO activity while papers by Bradley, Jordan, and Ritter (2003) and Clarke et al. (2004) touch upon many of the issues discussed in this section.

The contrasting results of Michaely and Womack (1999), which show a post-recommendation price drift, are still a bit of a puzzle. There is a good chance that their results are time frame specific as the results have not appeared in other sample periods.

It has been well known for years that analyst recommendations are upwardly biased and that prior to 2003 there were virtually no “sell” recommendations made by sell-side analysts. Using a sample from 1989–91, Womack (1996) shows that “buy” recommendations are seven times more common than “sell” recommendations. Further, he finds that “buys” lead to a 3.0 percent price increase at the recommendation time while “sells” lead to a 4.7 percent price decrease. He further finds that prices continue to drift for several months in the direction of the initial price reaction.

Continuing this line of work, Michaely and Womack (1999) look at IPOs over a similar time

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period to see if stock price reactions are affected by whether the research recommendation was delivered by the analyst who worked for the lead underwriter of the IPO. Looking at recommendations at the end of the post-IPO quiet period, Michaely and Womack find that lead underwriter analysts make 50 percent more “buy” recommendations than unaffiliated analysts do. More importantly, they find that the market appears to be fooled by the biased recommendations of underwriter analysts. Though prices react less favorably to affiliated versus unaffiliated analysts at the time of the “buy” recommendation, there is substantial underperformance of the stocks recommended by the affiliated analyst in the two years following the IPO. By looking at the performance of recommendations of stocks for which these same banks were not the lead underwriter, the authors were able to show that this effect was due to a bias and not a lack of skill on the affiliated analysts’ part.

The Michaely and Womack finding provides some evidence of analyst bias for which the stock market is unable to adjust. Two more recent papers seem to suggest, however, that the market is able to consider the biases of affiliated analysts in coming to a price for the stock. In the first of these papers, Bradley, Jordan, and Ritter (2003) look at the onset of analyst coverage at the end of the quiet period.

They find that analyst coverage leads to a significant 4.1 percent rise in prices but that firms that do not receive analyst coverage have only a 0.1 percent price rise. Further, they show that this price rise occurs in the few days leading up to the end of the quiet period, suggesting that the market correctly anticipates the onset of analyst coverage. Unlike Michaely and Womack (1999), however, Bradley, Jordan, and Ritter find that this price rise is not affected by whether or not the analyst is affiliated with the lead underwriter.

Clarke et al. (2004) try to pursue the nature of the conflict of interest in more detail. The authors partition sell-side firms into three groups: investment banks, brokerage-only firms (with no investment banking operations), and independent research firms. The authors then study the accuracy of analysts’ earnings forecasts, the biases in their recommendations, and whether there is any differential market reaction to these pronouncements depending on the type of broker that employs the analyst. The authors find that analysts at large investment banks issue less optimistic earnings forecasts relative to consensus numbers than do the other two types of analysts. Also, investment bank analysts issue among the most accurate forecasts of any of the three analyst groupings. Notably, analysts who work for large investment banks appear to be less timid than their brethren in that they tend to issue the first forecast in a given quarter.

Turning to analyst buy/sell recommendation changes, Clarke et al. find that analysts who work for independent brokers are less likely to issue strongly positive recommendations than are analysts who work for the other two types of brokers. However, the market regards the upgrades by investment banks as being more informative than the others. Long-term performance is also better for upgrades by analysts who work for investment banks. Finally, the authors look at instances in which the analyst moves from one type of bank to another. They find that there is no statistically significant change in behavior when analysts move from a brokerage-only firm or an independent research firm to an investment bank. The authors interpret their results as being “inconsistent with the hypothesis that analysts at investment banks are biased and markets are unaware of this bias.”⁹⁵

Taken together, and in light of the recent \$1.4 billion research settlement, the results are surprising. Though there is evidence that analyst buy/sell recommendations are biased, the market appears to understand and correct for this bias. Further, analysts at large banks appear to make less biased and

more precise earnings forecasts than those made by analysts who work for independent research firms. We will return to these findings when we discuss the provisions of the research settlement, but first we will discuss several other conflicts within investment banks.

Sales/trading versus research. At its most pure, research involves sifting through public and other legitimately gathered information to make more precise inferences about a security's value. Once the information is processed, the analyst has a choice of what he can do with the information. The analyst could release it in a broadly disseminated report that would arrive at all investor's desks at the same time. Alternately, the analyst could favor some investors over others in choosing how to disseminate the information. For example, if the information arose because of some corporate finance work the analyst did, she could be tempted to pass the information on to a favored trading client, perhaps a large and high commission-paying hedge fund. She could also allow the information to be used internally at the bank's proprietary trading desk, where the bank may establish a large principal position based on the information. All of the above possibilities pose a clear conflict with the banking relationship.

Proprietary trading versus sales and trading. Proprietary trading operations are often likened to a hedge fund within the bank: They are operations that execute trading strategies with the bank's capital and often compete with the investment bank's own customers. As such, conflicts abound in terms of who receives the rights to certain trading opportunities. For example, as part of a large sales and trading operation, a bank learns much about the trading desires of its institutional counterparties. Though the buy-side firms try to limit it, they cannot help but give up some information about their trading demands to the bank. A clear conflict exists in that the bank's trading desk would like to pass this information on the internal proprietary trading operation to trade ahead of their own customers and free-ride on the client's information. Such front-running is of course prohibited.

Yet more subtle forms of this conflict exist. The process of internalization of retail orders is one such example. Retail order flow is generally regarded as uninformed and thus profitable to trade against. Such orders can simply be routed to a central exchange such as the NYSE for execution. In doing

this the bank's obligation to its retail customers for best execution would likely be complete. However, banks have an incentive to selectively trade against the retail orders on a proprietary basis, buying those stocks it feels are slightly undervalued and selling those that are dear. By doing this continuously over a large number of stocks through the course of the day, the firm can earn a considerable profit. In the absence of the internalization operation, it is not clear whether those profits would have inured to the retail investors or to the NYSE. Whatever the case, trading as principal against uninformed retail flows is a clear conflict of interest by an investment bank that to date has passed muster with regulators.

In the examples above, the conflicts of interest discussed existed wholly within the bank itself. The conflict was between research and corporate finance or between proprietary trading and sales/trading. Another class of bank conflicts of interest relates to bank's customers. Problems can arise when (1) the bank's customers face either conflict or agency problems and (2) the bank can exploit those conflicts while (3) at the same time being exploited by these same customers. In such a setting, both the bank and its customer may further their own ends at the expense of some third party.

For example, consider the case of the conflict between institutional investors and the investment bank involving a research report in which the bank's analyst is about to downgrade a particular stock. If the buy-side firm has a large position in the stock, it may pressure the bank not to issue the downgrade. The lever to do so could be the large trading commissions generated by the investor, setting the research analyst at odds with the bank's sales and trading desk. The buy-side firm understands this pressure and may not hesitate to use it to kill, or at least forestall, the report until it has sold out of its position. By threatening to withhold trading business from the bank, the institutional investor effectively exploits the internal research conflict to its own benefit.

As an example of another conflict involving outside parties, the recent settlement between the Securities and Exchange Commission (SEC) (2003) and J.P. Morgan Securities highlighted the conflicts that arise in the case of IPO allocations and laddering transactions. In this case, the SEC found that J.P. Morgan had caused institutional investors to buy stock in certain Morgan-sponsored offerings

5. The arrangement is not dissimilar from the case of rating agencies where issuers pay the agencies money to get their new issues rated.

at prices above what they would have otherwise paid. This arrangement was an explicit quid pro quo required by the bank in exchange for investors receiving a continued stream of underpriced IPOs. The conflict pitted the trading desk against the corporate finance function, with the institutional investor being the willing party to buy cold IPOs, or overbuy hot IPOs, to assure the chances of a good allocation for future hot IPOs. Clearly, not all interactions between corporate finance and trading need be conflict-ridden. In the early 1990s one large bank ran a full-page ad with a large grizzly bear on it with the caption “Your offering is only two hours old and the bears smell lunch,” suggesting that lunch could

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have been forestalled had the issuer chosen the right investment bank with an appropriately coordinated trading operation.

As a final example of this externally abetted conflict, consider the relatively new situation of what is known as “sponsored research.” The practice has arisen in the aftermath of Regulation Fair Disclosure (Reg FD) and the general cutback on research coverage in the wake of the analyst controversies. Reg FD essentially prohibited corporate officers from making material nonpublic information available only to select groups of individuals (for example, analysts and investors) and instead required firms to broadly and publicly disseminate information if they chose to make it public to anyone. Certain issuing firms, especially smaller ones, have seen their research coverage reduced or eliminated as brokers reduced analyst coverage. Because issuers feel analyst coverage is important to them, they are willing to pay to have analysts cover their firm.⁶ Though this is usually the domain of small brokers, it clearly places the analyst in a conflicted position between the party that is paying him (the issuer) and the party that is likely to make use of the research (the investor). In March of this year, the Association for Investment Management and Research (AIMR) released a draft calling for public comment on the question of paid research reports, among other analyst issues.

In summary, we have seen that investment banks are fraught with a host of conflicts of interest, some wholly contained within the bank and others that exist on a broader scale. Thus, the conflicts in the research analyst versus underwriting situation are simply an instance of the wide range of conflicts that are endemic to the investment banking business.

Policy Considerations and Alternatives

Having discussed the institutional arrangements in investment banks and some of the empirical results on analyst conflicts, I turn now to the policy implications for these issues. The global research settlement struck with the major U.S. regulators in April 2003 can serve as a straw man for the policy solutions that might be considered for this conflict. Among the provisions of the settlement are the following conditions:

- The firms will physically separate their research and investment banking departments to prevent the flow of information between the two groups.
- The firms’ senior management will determine the research departments’ budgets without input from investment banking and without regard to specific revenues derived from investment banking.
- Research analysts’ compensation may not be based, directly or indirectly, on investment banking revenues or input from investment banking personnel, and investment bankers will have no role in evaluating analysts’ job performance.
- Research management will make all company-specific decisions to terminate coverage, and investment bankers will have no role in company-specific coverage decisions.
- Research analysts will be prohibited from participating in efforts to solicit investment banking business, including pitches and road shows. During the offering period for an investment banking transaction, research analysts may not participate in road shows or other efforts to market the transaction.
- The firms will create and enforce firewalls restricting interaction between investment banking and research except in specifically designated circumstances.
- To ensure that individual investors have access to objective investment advice, the firms will be obligated to furnish independent research. For a five-year period, each of the firms will be required to contract with no fewer than three independent research firms that will make available independent research to the firms’ customers. An independent consultant for each firm will have final authority to procure independent research.

- To enable investors to evaluate and compare the performance of analysts, research analysts' historical ratings will be disclosed. Each firm will make its analysts' historical ratings and price target forecasts publicly available.
- The ten firms have collectively entered into a voluntary agreement restricting allocations of securities in hot IPOs—offerings that begin trading in the aftermarket at a premium—to certain company executive officers and directors, a practice known as “spinning.” This restriction will promote fairness in the allocation of IPO shares and prevent firms from using these shares to attract investment banking business.

These reforms break into two groups. The first set contains the requirements for the physical, economic, managerial, and informational separation of research from investment banking. The second set contains requirements for additional information to be produced by the bank for the benefit of investors, both for analysts' historical ratings and for the research of at least three independent research firms. (The monetary penalties assessed on the ten firms included a provision for the firms to pay \$432.5 million to fund this independent research.)

The settlement discusses in some detail the actions of the various banks and how they violated federal securities laws and SRO rules. The releases do not establish a clear connection between the actions of the banks and losses suffered by investors. It is of course clear that beginning in March 2000 the equity market in general, and technology stocks in particular, began a protracted slide that shaved over 60 percent off the level of the Nasdaq market. This group of ten banks underwrote a large portion of those firms. However, in his findings in the litigation against Merrill Lynch, one of the banks that settled conflict-of-interest charges with regulators, Judge Milton Pollack determined that the losses investors suffered in a subset of the Merrill underwritings were not caused by the actions of Merrill or its analysts (Pollack 2003). Though Pollack's opinion was technically a motion to dismiss a class-action litigation, the salient point of his opinion is that despite the incentive to do so, the plaintiff's lawyers were not able to craft an argument to show the investor's losses could not be attributable to the allegedly conflicted research reports issued by Merrill.

Recently there has been an interesting development in France in which the pendulum has swung the other way on an analyst research report. A French court ordered that Morgan Stanley pay \$38 million to LVMH Moët Hennessy Louis Vuitton because a research report issued by a respected Morgan Stanley analyst was alleged to be overly critical and full of errors, thereby defaming LVMH (Norris and Sorkin 2004). Morgan Stanley represented Gucci, which was the subject of a failed takeover by LVMH. The court case alleges that the analyst warned of a potentially imminent downgrading of LVMH's debt and in doing so did not respect the Chinese wall between research and

With falling wages and fewer information-generating interactions, sell-side research is less likely to draw good individuals, and the quality of research is likely to suffer, harming investors.

banking. The motive of the analyst will likely never be known, but the case highlights the point that whatever the opinions of analysts, positive or negative, aggrieved parties can allege malfeasance on the part of analysts, stemming the flow of information about issuers.

From a policy perspective we find ourselves in a challenging position. First, the academic evidence indicates that market prices anticipate and incorporate analysts' biases. Second, private litigation and government pronouncements have not turned up a strong linkage between analyst actions and harm to investors. An obvious question then emerges. On what basis do regulators believe the first group of remedies cited above that physically and economically separate banking from research will improve investor welfare or investor protection? I believe the evidence that it will is quite limited.

First, note that since the global settlement was reached, the ten firms bound by the settlement have had an average ratio of 3.86 times as many “buy” as “sell” recommendations. For a group of seven other smaller firms that were not part of the global settlement, this ratio is 8.07. Post-settlement, “buy” ratings are almost four times as likely as “sell” ratings

6. This exemption applies only to nationally recognized self-regulatory organizations, or NRSROs, a select cohort of SEC-designated rating agencies.

for large banks, and there remains a substantial overpopulation of “buy” recommendations. Further, the smaller firms such as A.G. Edwards, Keefe, Bruyette & Woods, and Sandler O’Neill, which are likely less conflicted by underwriting assignments and were excluded from the terms of the settlement, had a buy-to-sell ratio that was nearly double that of large banks. Thus, banks that are unconflicted by corporate finance business have a large enough fraction of “buy” recommendations that one wonders whether the underwriting conflicts really were the root cause of the recommendation biases.

Second, if the analysts are physically and economically separated from the rest of the bank, this

It is worth asking why we do not already have a well-developed community of independent research analysts and why such a community has not grown up to dominate in the battle for investor attention.

separation will drastically limit the scope economies the research function has heretofore enjoyed. Along with Reg FD, analysts will not be able to exploit any of the information the bank generates in the course of its other functions. The quality of the research product will likely fall as analysts are isolated from other parts of the firm. This decline in turn will drive down the marginal product, and thus the wage, of the analysts. In addition, the terms of the settlement require that analyst compensation must be primarily based on the quality and accuracy of their research. With falling wages and fewer information-generating interactions, sell-side research is less likely to draw good individuals, and the quality of research is likely to suffer, harming investors.

But even if the above two points are not true, the core issue at hand is that there is no evidence that analyst pronouncements harmed investors via share price reactions to analyst forecasts and recommendations. The evidence cited in the previous section shows that underwriter analyst earnings forecasts are more precise than the forecasts of unaffiliated analysts, and though recommendations are biased upward, the market sensibly discounts the “buy” recommendations of underwriter analysts. Securities appear to be fairly priced and incorporate the potential biases of analysts. Institutional investors certainly understood the pressures analysts faced and the bias

implicit in their recommendations. Yet they were willing holders of almost all the stocks that led to the broad retail investor losses. Rating agencies, whose analysts are wholly independent from any conflict arising from underwriting activity, also did not call the aggregate misvaluation in the market in early 2000. As such, it is hard to attribute analyst behavior as being a causal factor in investor harm.

The marginal wealth loss retail investors suffered arose from their undiversified holdings of stocks, not a distortion or manipulation of stock prices. To me it therefore makes more sense to look to the brokers who put the retail investors in the stocks than to the analysts themselves. These brokers should have insured that retail investors had prudent and diversified portfolios. The analysts’ euphoria may not have altered share prices, but the analysts certainly did create hype in the market and enthusiasm on the part of unsophisticated investors for technology stocks. It was brokers’ job to temper this enthusiasm with prudent restraint.

I am equally unconvinced that the second group of reforms, those based on information, will have a material impact on investor protection. The settlement calls for the production of two new types of information by banks: historical reports on analyst track records and accuracy and the delivery of independent research by those investors who desire it. Analyst track records have been available to the public from firms such as Zacks and I/B/E/S for years. The private sector tracks analyst performance and services, and newsletters are available that permit investors to query the accuracy of an analyst’s past calls. In addition, various periodicals in the financial press publish annual evaluations of model portfolios built from the investment banks’ stock selections over the course of the year. It would therefore be surprising if information about historical analyst track records had a significant effect on investors.

More interesting and in many ways more compelling is the requirement for independent research to be made available to the banks’ retail clients. Given the conflicts of interest that potentially taint sell-side research and the empirical evidence that affiliated analysts issue more “buy” ratings than unaffiliated analysts, the solution seems a reasonable one. However, as one considers the question more carefully, certain issues come to mind.

First, it is worth asking why we do not already have a well-developed community of independent research analysts and why such a community has not grown up to dominate in the battle for investor attention. There are many reasons for this, but perhaps

chief among these is that it is very difficult to create a viable business model for the sale of pure information. Simply put, who is going to pay for the research product that is produced by a stand-alone independent research firm, and how will they pay for it? This problem was addressed in 1971 in a seminal article by Jack Hirshleifer on the value of information, albeit in a different setting. Among other things, Hirshleifer points out that it is difficult to derive a social benefit from the public dissemination of private information.

Consider an analyst with a substantial piece of private information. If the analyst publishes the information, prices may adjust, but no trading occurs because everyone has the same piece of information at the same time. Because no action is taken, investor welfare is not changed. Now consider what happens if the analyst tries to sell the information. If the potential buyers cannot verify whether the information is accurate or not, they will discount the price they pay for the information from what the analyst knows it to be worth. If the information is accurate, the analyst would do better trading on it himself as principal. If it is inaccurate, he sells it and the buyer regrets the purchase. Also, note that the information can never be sold a second time because the first buyer will trade on the information as long as it is profitable to do so and until prices move to reflect the information. Thus, there is no resale market for private information, and stand-alone business such as rating agencies and stock research cannot exist. Though Hirshleifer's paper presents its results in a stylized setting, it illustrates the salient point as applied to this paper that selling research is a tough business. It is no wonder that there is no business model for independent research. Hirshleifer also points out that the best use for accurate and credible private research is to trade on it as principal. In the securities market, people who make a business out of doing this are known as hedge funds.

There are, however, some models of third-party research in the financial services community. One of these is the rating agencies, such as Standard & Poor's (S&P) and Moody's. The ratings agencies are independent organizations whose job is to provide objective and dispassionate opinions about the quality of debt and, to a lesser extent, equity securities. However, like the sell-side analysts, the ratings agencies were criticized for failing to call the market overvaluations in the late 1990s. Because these agencies are putatively independent, their shortcomings cannot be attributed to conflicts of interest. The agencies' performance casts doubt on whether similar systematic errors on the part of sell-side analysts were also conflict-driven.

The ratings agencies operate with an advantage unavailable to sell-side analysts, at least since October 2000, in that issuers are exempt from Reg FD when speaking with rating agencies. As such, Moody's and S&P can learn more from managers about the condition and future prospects of an issuer than can the analysts at sell-side firms. Even with this private information, which will not be available to the independent research firms created by the settlement, the rating agencies are not known to be at the cutting edge of research.

Finally, rating agencies essentially give away their primary research output in fixed income markets for free. Bond ratings are public information, and the

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rating agencies do not receive payment from investors for the analysis. Instead, rating agencies are paid by the issuers themselves, whose securities the agencies rate, a structure that appears not to trouble regulators for its clear conflicts of interest. Rating agencies may prefer to receive payment from investors in lieu of, or in addition to, payment from issuers, but no credible model exists for doing so.

There are other types of third-party information providers as well, such as Changewave Research, Argus Research, Gimmie Credit, Sanford Bernstein, and others, but again the question of how these firms can be paid remains. In the case of Sanford Bernstein, the firm has its own brokerage operation. Because it is difficult to be paid directly for research since this fee would come out of hard dollars and be a direct management expense for the clients, users of Bernstein research can pay for the product by sending orders for stocks to Bernstein's brokerage desk. This activity is permissible under the securities laws but represents another clear conflict of interest.

Furthermore, as with a firm such as Changewave Research, if the research firm is too small to run a trading desk, it can be paid via soft dollars, another conflict of interest that basically allows for side payment to be made to research firms from the brokers that executed orders for the buy-side

portfolio manager. These payments have only limited disclosure, masking much of the cost of the research, and because the research is not paid in hard dollars but through brokerage commissions, the costs are borne by the beneficial owners of the buy-side portfolio and not the investment adviser. Not surprisingly, a number of independent research firms have come out strongly opposed to a recent proposal to ban or limit the use of soft dollars for paying for research (see, for example, ICAA 2004).

In advocating more independent research without a valid and scalable business model for these independent research firms, the SEC is in many

Stock price reactions to analyst pronouncements indicate that the market is not fooled by the recommendations of analysts and that it appropriately incorporates biases that stem from conflicts of interest.

ways trading one set of conflicts of interest for another. The conflicts reflected by arrangements such as soft dollars simply represent a response by banks' clients to both their own environment and to the internal conflicts of the banks themselves. Sell-side research cannot be paid for on a stand-alone basis, which the buy side knows, and thus institutional advisers pay for research with brokerage. Not only does sell-side research serve the purposes of banks' business model, but it forestalls the creation of what otherwise might be a substantial cost center in the banks.

Finally, with regard to independent research, the paper by Clarke et al. (2004) looks at the timing of analyst forecasts of earnings. If independent analysts were to really improve upon sell-side research one would hope not only that their forecasts would be more accurate than those of sell-side firms, which they are not, but that the independent analysts would also be leaders in the community of analysts in voicing their views. The data show that this is not the case. Independent analysts on average report their earnings forecasts after the forecasts of analysts at large investment banks. With regard to buy-sell recommendations, Clarke et al. find that the independent analysts are much more likely to revise their recommendation after both analysts at large banks and analysts at nonunderwriting brokers. Whatever

the benefits of independence, the empirical data do not indicate that leadership in research is one of them.

Summary and Conclusions

Three overarching themes can be drawn from the institutional and academic evidence of analyst research as it relates to conflicts of interest. First, there is evidence that analysts issue biased research in the sense that bias is defined by the frequency of "buy" recommendations. Second, it is clear that both issuers and investors believe credible analyst research is important, each for their own purposes. Third, stock price reactions to analyst pronouncements indicate that the market is not fooled by the disingenuous recommendations of analysts and that it appropriately incorporates biases that may exist because of conflicts of interest.

Unfortunately, much of the policy stand taken by regulators appreciates the first two points but fails to acknowledge the third point. Money has been lost in the stock market since early 2000, and analysts would appear logical parties to share some of the blame. There does not appear to be a sound, economically grounded basis for doing so, however. Institutional as well as retail investors were taken in by the market rise of the 1990s. As part of the professional financial community, however, the institutional investors of course knew of analysts' conflicts of interest. Such investors presumably adjusted their buy and sell decisions to account for this bias. Because large institutions are sophisticated participants and are likely the marginal investors in the market, setting a stock's marginal price, share prices should reflect and appropriately discount analyst biases. The real effect of the overly positive research reports, however, may have been to cause naive investors to hold more shares of risky securities than they would have otherwise held. In this sense, the analysts may have contributed to certain allocations of securities in the economy but likely not to their misvaluation. Retail brokers might therefore share more of the blame than they have borne to date.

No one would argue that objective information is better than conflicted information. But if, in the case of stock research, this objectivity comes at the cost of lost scale economies and more accurate information dissemination, then it is incumbent on the policymakers to show a concrete basis for the remedies they propose and the investor protection benefits they hope will result. In the case of the regulatory policy toward investment research, this case has yet to be clearly made.

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