

Wall Street Research

Paul Healy

The following article is based on the Paul Healy's keynote address at the 2014 Applied Finance Conference held at St. John's University Manhattan, NY campus on May 16th, 2014. His address summarized a decade long research program examining the workings of both the sell and buy sides of financial analysis. This stream of research includes numerous papers with Boris Groysberg and other co-authors, and culminated with their book Wall Street Research: Past, Present, and Future (2013). The Applied Finance Conference was jointly sponsored by the Financial Management Association, the Journal of Applied Finance, and St. John's University. - Editor

■ Thank you for the opportunity to share my research with you. This work has been conducted over the past ten years with my colleague at Harvard Business School, Boris Groysberg, and which we have compiled into a book, *Wall Street Research: Past, Present and Future*, published with Stanford University Press.

My interest in financial analysts arose from teaching financial analysis to MBA students at MIT and Harvard for many years. Around the time of Enron and WorldCom, I realized how little I knew of how analysts were managed and about their role in their own organizations and in financial markets. I soon learned that there was a gap in our understanding of analysts as an institution. We knew much about the properties of their earnings estimates and the

Paul Healy is the James R. Williston Professor of Business Administration and Senior Associate Dean for Research at the Harvard Business School in Boston, MA.

This Keynote presentation was presented at the 2014 Applied Finance Conference on May 16th at St. John's University in New York, NY.

performance of their recommendations, but less about how they performed their function, how they were managed and rewarded, and how they interacted with clients.

The work that I'm going to discuss comes from a number of research papers, countless interviews with practitioners, surveys, and HBS case studies. Talking with practitioners proved to be particularly valuable. They were able to provide us with a rich understanding of how analysts operate, how they are viewed inside their organizations, how they are compensated and reviewed, and how their clients perceived them. For those of you interested in further detail, I refer you to the book or the academic articles cited therein.

The structure of my talk is as follows. I will first discuss how Wall Street research adds value in financial markets. I will then examine the business model challenges that the industry faces and how the model has been affected by regulatory changes. You will see that despite these challenges the industry has been remarkably resilient, dealing with its challenges in innovative ways. As a result, its performance has been more impressive than many perceive. Finally, I will discuss recent challenges and opportunities for the industry from changing technology and emerging markets. Throughout the talk I will refer to Wall Street analysts as sell-side analysts, and their institutional clients who consume their research as the buy side.

How Does Wall Street Research Add Value?

Wall Street research and Wall Street firms are financial intermediaries that provide services to both investors and corporate issuers. Both these parties view Wall Street research as valuable, but for quite different reasons.

Buy-side ratings of sell-side research and practitioner

comments indicate that institutional investors value sell-side research for three main reasons. First, for the thousands of buy-side clients, sell-side research provides an efficient source of industry and stock information that forms a basis for their investment decisions. Each of the buy-side firms could collect this information themselves, but to do so would involve inefficient replication, with little opportunity to create an edge in performance. A more efficient outcome is to outsource the collection of this information to the sell side.

The sell-side also helps the buy-side to screen stocks. Given the thousands of listed stocks that are potential investment candidates, buy-side portfolio managers face a challenge in limiting the set to a manageable number. By identifying stocks that are potentially interesting investment ideas, the sell-side helps to meet this demand. Of course the buy-side make the final decision whether to buy or sell a stock, but Wall Street research provides them with new ideas and allows them to winnow the large set of potential investment stocks into a manageable number that they can analyze more deeply.

Finally, the sell-side adds value to the buy-side through its convening function. Wall Street research departments leverage their corporate relationships to convene regular conferences where they invite the leading business leaders in an industry to make presentations and meet with large institutional investors, either in small groups or one-on-one. Such events are a very efficient way for the buy-side to meet with management of the firms in which they are investing or considering investing. Of course, they could arrange such meetings themselves, but they would not be able to arrange for so many industry leaders to be available in one location at the same time.

The other type of sell-side client is the corporate issuer. Corporate executives value Wall Street research because it plays a useful role in initial public offerings or secondary offerings. Research helps to sell the stock to new investors, typically institutions. Once the stock is issued, Wall Street analysts provide valuable information about the company that helps level the playing field among investors and make the market liquid. Corporate clients also value the sell side convening function, by providing a convenient way to meet with key investors.

Business Model Challenges

Despite the benefits of Wall Street research, the economics of the industry is challenging for several reasons.

First, the production of research is costly. Wall Street analysts are typically highly educated and experienced, and therefore have a high opportunity cost. The infrastructure required to perform their research, including access to data, travel, and administrative support, only adds to their cost. But of course once the research has been produced, it costs

very little to distribute. In a competitive research market, this creates an incentive for research providers to attract additional clients by pricing above marginal cost, but below average cost. But as a result, it becomes difficult for the research provider to recover the full cost of the research. This problem is not unique to research. For example, it explains why airlines have such a difficult time making money – competitive pressure leads them to lower price to attract passengers. Provided they cover the incremental costs of flying (in this case largely peanuts and a drink), they contribute to covering the cost of the plane, crew, and fuel. But such pricing pressure can easily lead to prices falling below average cost.

The second challenge, which I term the obsolescence challenge, is one with which we're all familiar given market efficiency. Information produced by a research department could be very valuable to a single client with exclusive access. Such a client might be willing to pay a relatively high price for the research. But in a regulated environment where fair access and disclosure of information is required and selective disclosure prohibited, research information gets broadcasted widely. In an efficient market, the value of the information is therefore quickly reflected in price. Since no single investor can capture its value, it is difficult for research departments to charge a price that covers the cost of producing the research.

The third challenge arises because research is an experience good. I do not learn about its value to me until I have used it. For research, it may take months before the full value is clear. And given market volatility, it is difficult to judge the expected value of research from the analyst's past performance history. This imposes risk on the purchasers of research, leading them to be willing to pay less for the product upfront.

A fourth challenge is that potential users of research face information overload. Given so much information is available, how do they decide what information is likely to be valuable and how do they determine the share of their budget to allocate to specific information sources?

Finally, Wall Street firms face a strategic challenge since it is difficult to differentiate their research offerings from those of their competitors. For example, if one firm decides to host a conference where they invite large clients and corporate executives from a particular industry, it is relatively easy for their competitors to copy. In other words, the barriers to entry are relatively low.

Given the above challenges two dilemmas arise for Wall Street firms. First, how do they fund their research business? Second, how do they identify and reward their best analysts?

Industry Responses to Business Model Challenges

So how has the industry responded to these challenges?

Prior to 1975, when Wall Street commissions were regulated, buy-side clients paid a bundled price for trading that covered the cost of trade execution and research. Under this arrangement, it was straightforward for Wall Street firms to fund research.

But on May Day 1975, commissions were deregulated and Wall Street had to figure out a new way of funding research in a deregulated market. Two approaches evolved. One was to continue to recover trade execution and research costs through bundled brokerage commissions, now unregulated and declining. Elaborate processes were developed to support this approach. The creation of Institutional Investor and Greenwich Associates ratings of research led to the formation of a voting process, where major buy-side firms periodically collect data from their portfolio managers and analysts on their evaluations of the quality of research provided by analysts in an industry. This data is aggregated to develop ratings of sell-side firm research quality, which is used by buy-side firms to determine how to allocate future brokerage business to individual sell-side firms. The sell-side firms themselves receive disaggregated data on ratings for each of their analysts, which is used to recognize and reward their analysts.

The second funding approach relied on billing the sell-side's other client, corporate issuers, rather than buy-side institutions. Banks recognized that research provided valuable support to issuers during new security offerings, when research would play an important role in helping bankers to sell a new issue to institutions. Consequently, the costs of research began to be covered through investment banking fees as well as brokerage commissions.

Both these unregulated approaches helped research firms to manage some of their business model challenges. The rating systems used by institutions to allocate future commissions to the most deserving sell-side firms provided a novel way of addressing the experience good challenge discussed above. Essentially sell-side firms were compensated for research ex post, allowing time for users to evaluate the quality of their advice. The ex post settling up also provided firms with incentives to be compensated for any personalized services they offered, such as providing clients with access to management at private industry conferences, or through private calls with their leading analysts, potentially addressing the obsolescence challenge.

The ability of sell-side firms to obtain data on how their research was valued, and on how the research of their individual analysts was valued meant that they were able to distinguish the highest valued analysts from the lowest, facilitating the monitoring and rewarding of analysts.

Regulation

Of course, given the importance of sell-side research for the efficient functioning of public markets, these new

approaches were subject to regulatory scrutiny. In 1999, the SEC (Securities Exchange Commission) adopted Regulation Fair Disclosure in response to concerns that analysts were privy to insider information from managers, which was tilting the playing field towards large institutional investors. Regulators also recognized that access to insider management information gave corporate managers power to pressure analysts to issue favorable reports. If analysts wanted access to private company information, the implicit quid pro quo was that they issue positive reports and projections about the company. The new rules barred managers from disclosing material private information to analysts. In the event that valuable information was released, the company had 24 hours to publicly announce the news.

The second significant regulatory intervention arose in 2003, with the Global Settlement. Regulators raised concerns that the investment banking business was generating a conflict of interest for sell-side analysts. Since analysts earned bonuses for supporting their firms' investment banking business, they had incentives to issue only favorable reports on banking clients. The regulatory concerns were heightened by email evidence indicating that several prominent analysts covering internet stocks had issued favorable ratings on banking clients but privately been skeptical about the companies' prospects. Also, regulators pointed to the paucity of sell ratings issued for firms covered. The resulting regulations required a strict separation of investment banking from research, both physically and for purposes of rewarding analysts. In addition, analysts were required to disclose potential conflicts of interest and prior performance, and banks covered by the Settlement agreed to provide funding to pay for independent third-party research for a period of five years.

Conflicts of Interest Revisited

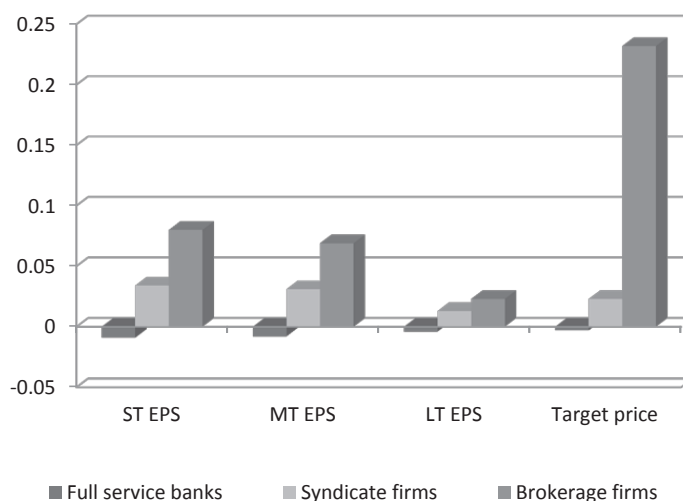
Research on conflicts of interest related to investment banking has shown that analysts at investment banks issued more optimistic long-term growth forecasts for banking clients than analysts at other firms and that they were slower to downgrade their forecasts following bad news.

But there are two ways of interpreting these findings. One is that analysts responded to investment banking incentives to issue positive forecasts and recommendations about banking clients. But an alternative, and equally plausible explanation, is that corporate issuers shop for banks to take them public or to underwrite new equity issues. Not surprisingly, they select banks in the best position to sell the new issue, and such banks are likely to have optimistic analysts. So the question of cause and effect is unclear.

In addition, the Global Settlement focused on investment banking conflicts, but because they are intermediaries, analysts face conflicts from multiple sources. For example,

Exhibit 1

Average standardized differences in analysts' earnings and price forecasts and the consensus forecast for analysts at brokerage, syndicate and full services banking firms.



Note: ST EPS is Short Term Earnings Per Share, MT EPS is Median Term Earnings Per Share, and LT EPS is Long Term Earnings Per Share

compensating research through brokerage commissions also induces a potential conflict of interest. Analyst research that encourages incremental trading generates greater brokerage commissions, potentially inducing analysts to issue reports that encourage short-term trading, whether or not it is advisable for the clients. And, as noted above, analysts who are beholden to corporate managers who appear at their industry conferences or provide private access, are at risk for becoming consciously or subconsciously partial in their reports. So analysts face a number of conflicts of interest that potentially color their research.

Given these questions, we revisited the question of conflict of interest and its impact on the quality of analyst research.

Differences in Research Bias by Investment Banks and Brokerage Firms

One study, co-authored with Boris and Amanda Cowen, examined the performance of analysts who worked for types of firms with differing incentives for research bias. The first is full-service investment banks that provide both brokerage and underwriting, where both these activities contribute significantly to funding research. The second is syndicate firms that generate the majority of funding for research from the brokerage business. These firms do not provide underwriting, but earn modest fees from distributing new issues. Finally, we examine brokerage firms that generate funding for research solely from brokerage commissions and do not have any investment banking business.

If research biases are primarily driven by investment banking funding for research, we expect to observe greater

bias in analysts' forecasts for the full-service investment bank analysts than for those working for syndicate firms or brokerage firms. Further, these biases are likely to be stronger for industries and stocks that issue capital.

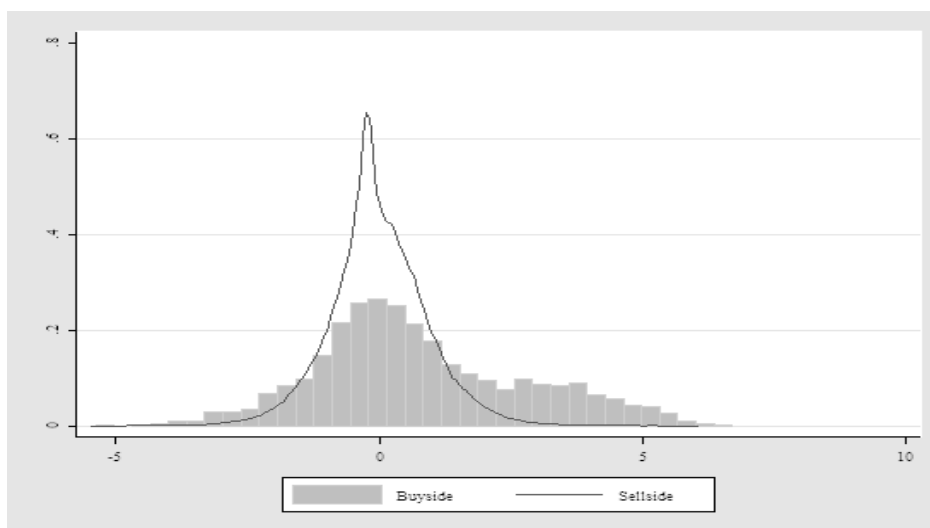
Using analyst forecast data from 1996 to 2002, we examined earnings estimates and target prices relative to the consensus for analysts at full-service banks, syndicate firms, and brokerage firms, standardized by the standard deviation of individual analyst forecasts. A positive (negative) value indicates that the analyst is optimistic (pessimistic) on the company's future performance relative to other analysts covering the stock at the same time.

The findings, reported in Exhibit 1, show that analysts who issued the most optimistic short-term forecasts worked at brokerage firms. Their forecasts tended to be around 3-5% more optimistic than the sell-side consensus. Thus, assuming a consensus forecast of \$1.00, the typical brokerage analysts would project earnings to be \$1.03 or \$1.05. The brokerage analysts also issued more optimistic target prices, again around 3-5% higher than the consensus. In contrast, investment bank analysts were the least optimistic, with lower forecasts than either brokerage or syndicate analysts. These findings were similar for firms that issued capital and for those that did not.

Of course, there's nothing wrong with an analyst issuing more optimistic forecasts provided the forecasts are more accurate than those issued by peers. We therefore also examined the forecast accuracy of analysts at the various types of firms. The accuracy findings looked remarkably similar to those reported in Exhibit 1. Namely, sell-side

Exhibit 2

Comparison of the distribution of standardized differences in analysts' earnings forecasts and the consensus forecast for analysts at a large buy-side firm and analysts at sell-side firms.



analysts at brokerage firms issued less accurate short-term earnings estimates and target prices than their counterparts at other firms. The most accurate earnings estimates and target prices were actually issued by analysts at investment banks.

Finally, we looked separately at analysts working at subsets of investment banks (bulge versus non-bulge) and at different types of brokerage firms (retail versus institutional). Analysts at the bulge investment banks had the most to gain from biased research, since their firms generated the largest investment banking fees during the study period. However, these analysts also had the most to lose, since their firms had the strongest research reputations on Wall Street. We found that during the sample period their analysts actually provided less optimistic and more accurate research than non-bulge analysts, suggesting that their firms' reputations were important factors in ameliorating incentives for bias. Among brokerage firm analysts, forecast bias and inaccuracy was higher for firms with retail clients than for those that focused exclusively on institutional clients, suggesting that institutional clients were more likely to perceive and impose reputational costs for biased research.

It is also interesting to examine what happened to research bias after the Global Settlement. In follow-up research, we found that the lower bias and greater accuracy of investment bank forecasts (and for bulge firms in particular) observed prior to the Settlement, disappeared after the Global Settlement. Bulge firms' forecast accuracy actually deteriorated to the point that their analysts' estimates became less accurate than those for non-bulge firms, and the stock market reactions to forecast revisions, which had been higher for analysts at bulge firms, now became lower than for the non-bulge firms. Industry experts argued that this

change arose from cuts to research budgets, in some cases by as much as 30-40%, at many of the large investment banks after the Global Settlement. These cuts caused many of their top analysts to leave for positions at hedge funds or to start their own hedge funds, reducing the quality of research at the top banks.

Sell-Side Research versus Buy-Side Research

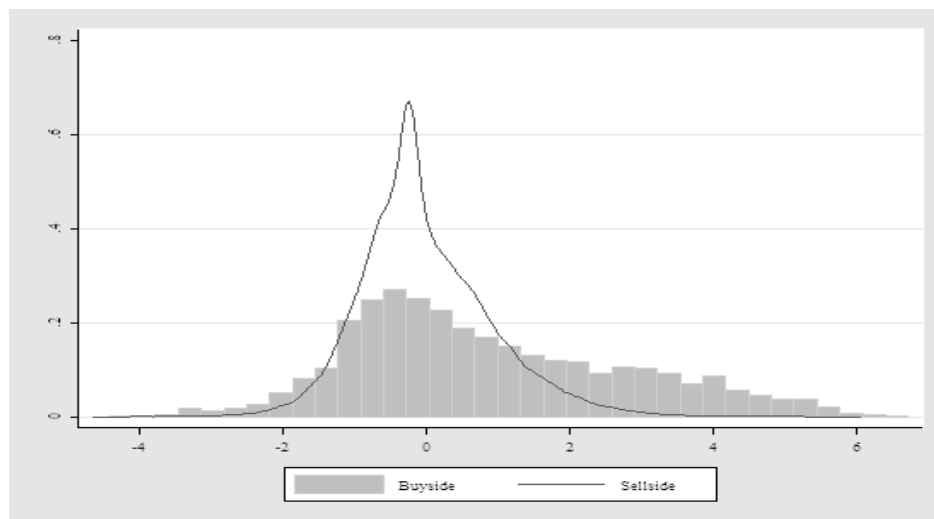
We also completed several studies comparing the performance of research provided by Wall Street firms with that of buy-side firms. Buy-side firms with their own research departments argue that their analysts are superior to those at sell-side firms because they don't face conflicts of interest.

Unfortunately, it is very difficult to secure data on the performance of buy-side analysts to confirm or refute this prediction. We were able to obtain reports and forecasts for analysts at a top ten buy-side firm from 1997 to 2004. The buy-side firm is a long-only value-based investor that values research. During the study period it employed about 20 analysts, most of whom had been at the firm for many years and had a career path as an analyst. In contrast, some other firms viewed analysts as portfolio managers in training, and promoted those who were most successful to portfolio managers. To assess the sensitivity of our findings to the use of a single firm, we replicated our analysis using survey data for a variety of analysts at different buy-side firms for 2005-2006.

Our tests compared the performance of Wall Street analysts and analysts at the sample buy-side firm. As shown in Exhibit 2, we found that the distribution of earnings forecast errors for analysts from the buy side had a longer,

Exhibit 3

Comparison of the distribution of standardized differences in analysts' absolute earnings forecast errors and the consensus absolute forecast error for analysts at a large buy-side firm and analysts at sell-side firms.



fatter tail than for analysts at sell side firms, implying that on average the buy-side firm analysts were more optimistic than the typical sell-side firm analyst.

We then examined differences in forecast accuracy. After all, since the buy-side firm is a long investor, it is plausible that its analysts issue forecasts for stocks they view as having strong upside potential, consistent with the observed optimism of their forecasts. But our findings (see Exhibit 3) show that their forecasts are not only more optimistic but less accurate, with the distribution of absolute forecast errors showing the same fat tail relative to the sell-side for forecast inaccuracy as for forecast bias.

In another paper, with George Serafeim and Devin Shanthikumar, we examined recommendations issued by the buy-side firm analysts relative to those issued by sell-side analysts. Here we do observe less optimism by the buy-side firm's analysts. In particular, they issued fewer strong buy and buy recommendations and more underperform or sell recommendations than their sell-side peers.

However, their recommendations were not as profitable as those issued by the sell-side. To analyze recommendation performance, we used the following investment strategy. We created an equal-weighted portfolio of all strong buy and buy recommendations issued by the buy-side analysts, beginning three days after the issue of their initial buy recommendation and ending one year later (or three days after the recommendation was downgraded to a hold or lower if the downgrade occurred within one year). For each sell-side firm, we followed the same strategy using their own analysts' recommendations. Our analysis showed that the buy-side portfolio generated average market-adjusted returns of around 2.3%, compared to an average of 8% for

the sell-side firms. After controlling for risk, size, book to market, and momentum factors, these differences decline modestly, but the sell-side recommendations continue to outperform those of the buy-side analysts.

We conducted a number of analyses to understand the causes of these differences. Three factors appeared to be relevant. First, we tracked the forecast accuracy of the buy- and sell-side analysts in the bottom 25% in terms of forecast accuracy. Poor forecast performers at the buy-side firm had a 2% higher likelihood of being at the same firm the following year, whereas poor forecast sell-side analysts were six percent less likely to be at the same sell-side firm one year later. In other words, it appears that poor performing analysts at sell-side firms exit more quickly than those at the buy-side firm, either because they quickly recognize that they are underperforming or because they are fired. Consistent with this finding, buy-side analysts we interviewed acknowledged that buy-side firms are somewhat less competitive than the sell-side.

Second, our initial analysis compared the performance of all recommendations issued by the buy- and sell-side analysts. When we examined recommendations for the same stocks, we found that the stock performance of sell-side and buy-side buy recommendations was not materially different. The observed differences arose primarily because analysts at sell-side firms also covered some small cap stocks that were more volatile than those covered by buy-side analysts. The sell-side recommendations for these stocks performed remarkably well, with abnormal annual returns of around ten percent.

Finally, anecdotally sell-side analysts argued that they stress test their research ideas regularly when they talk to

clients. As a result, they constantly update and revise their ideas and investment recommendations. In contrast, buy-side analysts do not have the same opportunities – they can discuss their ideas with their portfolio managers, but not with broader market participants.

Our tests also revealed several factors that did not seem to drive the difference in recommendation performance. For example, it did not appear to reflect innate differences in the abilities of buy- and sell-side analysts. Many of the buy-side analysts previously worked on the sell-side, so we were able to track their performance as sell- and buy-side analysts. We found that when they were employed on the sell-side, their earnings estimates were similar to those of other sell-side analysts. Only when they moved to the buy-side did their forecasts become more optimistic and inaccurate.

Buy-side analysts also cover a larger universe of stocks than sell-side analysts. Yet this also did not explain the differences in performance since, when we matched the buy-side analysts with sell-side analysts with comparable scope of coverage, the performance differences discussed above persisted.

Another concern is that the sample buy-side firm was simply a poor-performer, and unrepresentative of other buy-side firms. But when we examined the performance of their funds, they appeared to be one of the better performing firms in their industry. Also, our findings were similar for a sample of analysts from a broad set of buy-side firms for which we collected earnings estimate and recommendation data using a 2005-2006 survey.

Finally, we documented that as much as 50% of the buy-side firm analysts bonuses were tied to the performance of their buy recommendations, suggesting that they have a strong incentive to devote considerable effort to this activity. In contrast, other research we have conducted with David Maber indicates that sell-side analysts' compensation is not closely linked to the performance of their recommendations.

Funding Research after the Global Settlement

So how do Wall Street firms fund research today? The Global Settlement restricted the use of investment banking funding for research, effectively placing much of the burden on brokerage commissions. In a recent project with David Maber, we examine how brokerage commissions are used to reward research. Our study uses data on commissions, feedback on research from institutional clients (called broker votes), analyst output, and analyst compensation for a mid-sized brokerage firm.

As I noted earlier, buy-side firms regularly survey their portfolio managers and analysts on the quality of sell-side research (usually each six months). Each buy-side portfolio manager and analyst at a firm is allotted a budget and asked to allocate that budget to sell-side analysts based on the quality of the research and services they provide. These

votes are then aggregated to construct ratings of research quality for all sell-side firms and analysts. The buy-side firm uses this information to allocate its brokerage business over the next six months. In addition, the buy-side firms provide sell-side firms with information on their research department ratings and that of their individual analysts. By aggregating ratings across all institutional clients, sell-side firms and their analysts therefore have access to regular ratings of the quality of their research and services from all their institutional clients.

Our tests find a strong positive relationship between changes in the broker votes allocated to the sample firm by their institutional clients and changes in brokerage business they receive from those clients during the *following* six-months. In contrast, we find a much weaker relationship between changes in broker votes and *contemporaneous* changes in commissions on stocks that analysts cover. This confirms that institutional clients primarily reward sell-side research in a given period by allocating *future* trading to highly rated research firms, rather than relying on contemporaneous trades with firms whose analysts supply timely news.

As noted above, this approach helps to alleviate the experience good nature of research. But it also recognizes that information provided by an analyst on a particular stock that is valuable may not lead to an immediate trade in the stock. Finally, the system helps buy-side firms to reduce the risk of front running by distributing trades of stocks across firms.

We then examine the types of sell-side research output that buy-side firms recognize through broker votes. We find that changes in broker votes are strongly related to changes in research output and services that are likely to provide valuable, but less timely information to buy-side clients. For example, changes in votes are highly related to changes in white papers issued, planned concierge services such as conferences with management or company visits, and private phone calls with sell-side analysts.

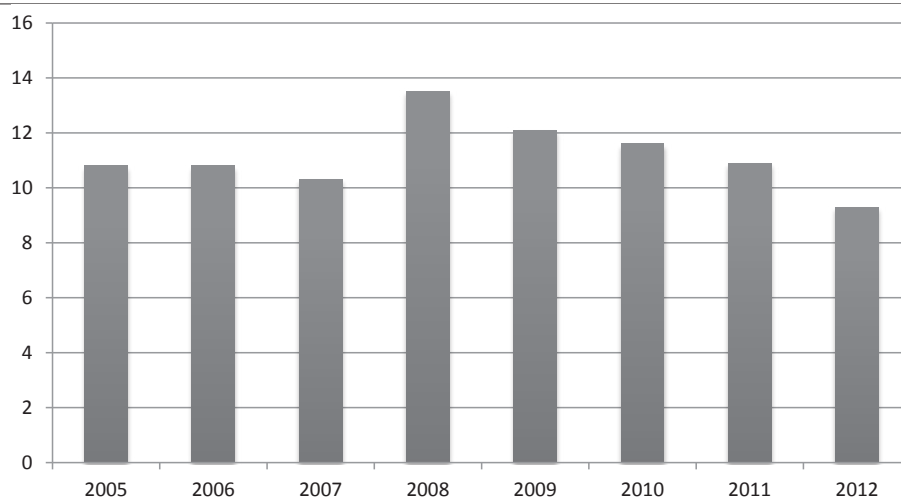
In contrast, the more limited role of using current commissions to reward research seems to be reserved for timely information that is reflected in revisions to topical notes or generated from private phone calls with analysts.

Finally, the sample sell-side firm uses broker votes to align its analysts' incentives. We observe a positive relation between changes in compensation for the firm's analysts and changes in their broker votes. Changes in contemporaneous commissions are also related to changes in analyst compensation, but the magnitude of this relation is small in comparison to that of broker votes.

Broker votes therefore provide a unique contractual arrangement that enables buy-side firms to reward sell-side firms that provide high quality research and concierge services, and for sell-side firms to reward analysts that are

Exhibit 4

Institutional commissions on US equity trades (in \$ billions) from 2005 to 2012.



perceived as adding value for their clients.

New Challenges to Sell-Side Research

So what challenges do sell-side research departments face today? Exhibit 4 shows recent data on institutional commissions on equity trades for Wall Street firms from 2005 to 2012. Since 2008, commissions have declined by roughly 30%. Some of this decline undoubtedly reflects the weakened US economy since the financial crisis. But, in contrast, the number of analysts on Wall Street has fallen by less than 1%. This raises two questions. First, why have commissions declined so markedly? And second, what are the future prospects for sell-side analysts?

One change that appears to have been significant in explaining the decline in commissions is changing technology. Black pools are private electronic trading networks that provide buy-side firms with low cost, off-market ways to trade. Trade execution costs on these platforms are low, and trading costs do not include any bundled charge for research. Consequently, as more trading has been allocated to electronic black pools, commissions available for research have declined.

The growth of investing models that do not use or pay for sell-side research has also reduced commissions available to support research. This arises primarily from two sources. The first is high frequency trading, which seeks to take advantage of predictable stock price fluctuations accompanying institutional trades and does not require sell-side research. High frequency traders are willing to invest heavily in technology that increases the speed of trading, but not for sell-side research. The second investment model that does not use traditional research is index investing, which provide a low cost way of mirroring the return on a diversified stock index. As evidence has mounted on the relatively strong

performance and low costs of index investments, their popularity has grown, further reducing aggregate demand for Wall Street research.

Technology also increases access to information for us all. I call this the democratization of information. Today individual retail investors and buy-side firms have timely access to a wide array of information that would not have been available 20 years ago. For sell-side analysts to continue to maintain their market share of research spending, they now have to provide their clients with new insights that could not be generated simply through current online sources. The growth of buy-side research departments and their allocation of research dollars to databases and other forms of research suggest that buy-side firms have more options for evaluating investment ideas today than 20 years ago, and this has reduced their reliance on sell-side research.

Responses to the Challenges

How are firms responding to these challenges? A number of firms have developed interesting new models that are designed to increase investors' willingness to pay for research, either by creating new products that appeal to a subset of institutional investors, or by providing additional private and tailored information to their most profitable clients.

Merrill Lynch. Merrill Lynch has developed a series of new products that are designed for hedge funds that are more willing to pay for research. The new products attempt to coordinate research coverage of a variety of different types of securities that could lead to interesting investment opportunities for hedge funds. These include identifying differences in pricing of stocks in global industries. This leverages Merrill's global scale, but also requires that its analysts that cover similar sectors across

different geographies coordinate their research efforts and output. Another opportunity that Merrill has identified is for distressed debt. Again, by coordinating the research of their debt and equity analysts covering the same firm, Merrill hopes to be able to identify arbitrage opportunities across securities that will be attractive to hedge fund investors and increase their willingness to pay for research.

Sanford C. Bernstein. Sanford C. Bernstein has traditionally appealed to long-term investors. Its analysts' black book reports on large cap stocks are well known for the depth of their analysis and for providing new information to investors that goes beyond what is available from Wall Street peers. To maintain this research edge, Bernstein spends aggressively to hire, train, and develop its research analysts. When it hires new analysts, the company gives the new hires a year to get up to speed before they really start work. As a result, it estimates that the cost of hiring and training a new analyst runs from \$500,000 to \$1 million. Through its talent identification and development, it argues that it is able to deliver on its value proposition for institutional clients and increase their willingness to pay for its research.

Sidoti. Sidoti was founded in 1999 to cover small to mid-cap stocks. Given the limited liquidity of such stocks, they are attractive to a relatively small subset of institutional investors, which reduces the risk that Sidoti will face direct competition from the large banks and brokerage firms that cater to large cap investors. Sidoti's difference in focus is also reflected in its research strategy. Unlike Bernstein, they hire relatively young analysts who have little experience and they do not spend much to train them. Instead, they add value for clients by hosting conferences in New York and San Francisco where corporate issuers and small company executives can meet institutional clients.

Leerink Swann. Leerink Swann focuses on investment opportunities in the healthcare sector. The company built a network of physicians, MEDACorp, to provide expert advice to investors interested in investing in healthcare. It also allowed its own team of researchers to use the expert network. By enabling investors to create private and personalized information from experts with deep knowledge of the field and on new medical products, this approach reduces the risk of research obsolescence and increases investors willingness to pay for research.

Credit Suisse. Credit Suisse has followed a quite different approach to address the challenges facing research. It has used the information provided by broker votes to turn research from a cost center into a profit center. Based on the relation between broker votes and commissions, the company allocates a share of commission revenues to research (around 25%). This helps the research business determine its cost structure, whether to add more resources, etc. Further, Credit Suisse extends this form of analysis to individual analysts, assigning research department revenues

to analysts based on the broker votes they generate. Analysts therefore have their own P&Ls (profits and losses), allowing them to make better decisions on how to best to run their businesses. Finally, the methodology has been applied to customers. By allocating costs to customers based on usage of critical research resources, the research department is better able to assess which customers are profitable and which are not. This enables the firm to have a productive conversation with its unprofitable customers, explaining that access to high-touch research services is only available to clients that generate valuable new business. Equally, it can make sure that its most profitable customers are taking full advantage of available services, increasing their satisfaction and loyalty.

Gerson Lehrman. Finally, the traditional sell-side research industry has been supplemented with new types of research providers, many proprietary and tailored to client needs. One such example, discussed above for Leerink Swann, is expert networks. The world's largest expert network firm is Gerson Lehrman. The company has created an extensive network of experts in a variety of fields who are available to consult with buy-side clients on topics of interest. For example, Gerson Lehrman (GL) can connect a buy-side firm interested in understanding changes in the energy industry with a panel of industry experts. The resulting conversation can therefore provide the client with an opportunity to gather private information relevant to its investment thesis, without alerting other investors, reducing obsolescence risks. The model also works well for GL. It typically receives memberships from clients, and pays experts only when they are used. By tracking feedback on which experts are most valued and building a strong network of clients and experts, it adds value to both.

Of course, expert networks are not without their risk. In an effort to enhance their reputations, experts may provide clients with inside information, violating securities laws and putting GL at risk. To manage this risk, GL trains their experts on the legal risks and prohibits employees of companies from being assigned as experts when the subject of interest is their own firm. But it's an open question as to how well GL enforces these controls and manages this risk.

Obviously for these approaches to be long-term successful in addressing the challenges facing sell-side research, they will have to generate significant barriers to entry for the adopting firms. Such barriers could arise from scale in providing certain products (e.g. Merrill Lynch), expertise in hiring, training and managing analysts (Bernstein), or developing a reputation for focusing on niche investment areas that attract less competition (e.g. Leerink Swann, Sidoti, and GL).

New Opportunities for Sell-Side Research

Most of the fastest growth in the world today is not in the

US, Japan, or Western Europe, but in emerging economies such as China, India, Brazil, and others. What opportunities does this generate for sell-side research, particularly for established firms in the industry?

One implication is that it is no longer enough for analysts covering stocks in developed economies to focus on their local economy, or even on developed economies. For example, for many US companies a growing share of their business is likely to come from the developing world. So to do your job today as a US analyst, it is important to understand what is going on in these developing countries and to be able to identify which US companies are likely to be able to compete effectively in these markets.

Another implication is that investors from developed economies are likely to want to diversify their portfolios by investing in emerging markets. The limitation for doing so today is that it is challenging for even professional portfolio managers to have a deep understanding of the business risks in those countries. This is exacerbated by concerns about the credibility of emerging country financial information that is used to make investing decisions. Of course, for sell-side analysts willing to dig deep, this gap can also be seen as an opportunity to add value to buy-side clients.

Finally, emerging markets have new investors looking for places to invest their savings and companies looking to raise capital to fund growth. For example, the burgeoning middle classes in China and India save 30-40% of their incomes because they do not have pension plans or medical insurance to provide for their future financial security. Given the emerging state of their financial markets and the limited financial products available to individual savers in these countries, there are opportunities for financial intermediaries to help provide new investment products and ways of managing risks. Financial intermediaries also have opportunities to underwrite new public issues as local Chinese and Indian companies seek to raise capital.

All these business opportunities suggest that sell-side research is likely to be increasingly valuable in emerging markets. Consistent with this prediction, the number of analysts in China and India has exploded in the last few years. In 2011, India had 1,087 analysts and China 850. As a benchmark, the US market had 5,878 analysts for the same year.

So will today's global financial intermediaries be able to benefit from these opportunities? They face several barriers.

One barrier is the local regulatory environment. Emerging economies typically restrict the entry from global firms and regulate products they can provide. For example, in China foreign firms are restricted from investing in local Chinese stocks, or from providing mutual fund products for local citizens. Prior to 1991, there were restrictions on foreign firms investing in India.

Given the historical volatility of stock returns for emerging countries, global and local financial intermediaries face challenges of building investor trust and confidence in equity products. For local investors who rely heavily on savings to cover medical and pension needs given the lack of any social safety net, stock investments are often seen as too unpredictable and risky. As a result, investors in India frequently look to gold as their primary form of investment.

Finally, local financial intermediaries are likely to have an edge over global firms in understanding their home market, local investor needs, and being able to assess investment opportunities (through greater knowledge of local companies). They are also better placed to hear rumors about questionable business practices and understand financial reporting than global firms.

Given the regulatory and informational advantages of local firms, it is perhaps not surprising that from 2000 to 2010, four of the top five investment banks listed on the Chinese IPO (initial public offering) league tables were domestic firms, and in India three of the top five firms were domestic.

Conclusion

In conclusion, sell-side research has an impressive track record of adding value to both buy-side portfolio managers and corporate issuers. Throughout its history, the industry has been remarkably resilient despite facing business model challenges and regulatory changes arising from concerns about conflicts of interest. Yet recent technology changes, the stagnation of developed economies and growth of emerging economies point to new challenges and opportunities. All this suggests that equity research is an industry where we can expect further disruption, particularly for industry leaders. ■

References

- Cowen, A.P., B. Groysberg, and P. Healy, 2006, "Which Types of Analyst Firms Are More Optimistic?" *Journal of Accounting & Economics* 41 (No. 1-2), 119–146.
- Groysberg, B. and P.M. Healy, 2013, *Wall Street Research: Past, Present, and Future*, Palo Alto, CA, Stanford University Press.
- Groysberg, B., P.M. Healy, and D.A. Maber, 2011, "What Drives Sell-Side Analyst Compensation at High-Status Investment Banks?" *Journal of Accounting Research* 49 (No. 4), 969–1000.
- Groysberg, B., P. Healy, G. Serafeim, and D. Shanthikumar, 2013, "The Stock Selection and Performance of Buy-Side Analysts," *Management Science* 59 (No. 5), 1062–1075.
- Maber, D.A., B. Groysberg, and P.M. Healy, 2014, "The Use of Broker Votes to Reward Brokerage Firms' and Their Analysts' Research Activities," Harvard Business School Working Paper.