

Are Internet Companies Overvalued (Again)?

by Raul L. Katz and Paul Zangrilli

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What we can learn from eBay's acquisition of Skype.

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In September 2005, eBay Inc. acquired Skype Technologies, an unprofitable Internet protocol-based voice telephony company, for US\$2.6 billion in cash and stock (as well as earn-outs, which potentially provide the sellers with additional revenue if the company meets certain financial performance targets; in this deal it could increase the purchase price to \$4 billion). This transaction marked the beginning of a new wave of Internet industry mergers and acquisitions following a long, painful correction. Other major deals since the eBay-Skype deal have included Google's acquisitions of DoubleClick and YouTube, Microsoft's acquisition of Aquantive, and News Corporation's purchase of MySpace. In fact, more than 1,150 technology transactions worth more than \$30 billion have closed since — many featuring lofty valuations, considering that most of the acquired companies had short operational histories and limited or nonexistent earnings.

There is a very strong chance that, to a large degree, acquirers are overpaying either because of limitations in common techniques for placing a value on mergers and acquisitions or perhaps because of a lack of investment discipline in firms with excess cash. For example, one of the more popular valuation methods is discounted cash flow, in which all future cash flows from an acquired

company are estimated and then “discounted” to give them a present value. But the outcome of the analyses in many of these deals is often little more than a guess, especially when there is not enough history about the company being acquired or a sufficient number of comparable firms to determine with any degree of accuracy what its next ten years will be like. If the revenue assumptions or synergy estimates are too aggressive, then the buyer has overpaid. Another way of approaching valuation is by comparing previous similar transactions. But here, too, the record is small or insufficiently applicable to be credible.

Therefore, in addition to these somewhat lacking models, we recommend that today's dealmakers also use a real options framework, which seeks to analyze and value the options, or strategic alternatives, that a company will have once it acquires another company. Although this method also depends on some assumptions, the rigor of building this type of analytical framework makes it much less vulnerable to pure guesswork and is an excellent way to determine the efficacy of management assumptions. We applied this approach to the eBay-Skype deal because it is the oldest of the recent wave, enabling the analysis of several quarters of financial data, eBay management's long-term plans for Skype, and Wall Street analysts' financial projections.

Raul L. Katz

(rk2377@columbia.edu) is director of business strategy research at the Columbia Institute for Tele-Information and an adjunct professor in the finance and economics division at Columbia Business School. Formerly a vice president and partner at Booz Allen Hamilton, he is president of Telecom Advisory Services LLC, a strategy consulting firm.

Paul Zangrilli

(pzangrilli07@gsb.columbia.edu), a former product manager at Yahoo Inc., is a research analyst at the Columbia Institute for Tele-Information.

Several premises drove eBay's acquisition of Skype.

- eBay was facing a slow-down of its core business in a maturing online auction market.
- eBay management had achieved previous success in its diversifying acquisition of Paypal, which allows purchases and money transfers to be completed online.
- “Convergence” would rapidly eliminate differences among separate Internet-based businesses.
- Direct competitors were rumored to be interested in buying Skype.
- Skype's Voice over Internet Protocol (VoIP) communications capabilities would transform the way people make and receive calls.

Consequently, eBay management was convinced that Skype would accelerate trading on eBay by letting buyers and sellers communicate over the Internet; Paypal integration on the Skype system would allow easier payment methods for users; Skype could promote eBay services, and vice versa; and the acquisition would enable eBay to pursue entirely new businesses such as pay-per-call.

In our assessment, a discounted cash flow analysis of the core Skype business, under fairly aggressive assumptions, yields an enterprise value of only about \$1.5 billion, \$1.1 billion short of the purchase price. To arrive at this, we conducted a strategic analysis of the VoIP landscape to review eBay's assumptions for long-term operating margins as discussed in publicly available merger materials. Our review identified significant areas where eBay appears to have been overly optimistic — especially given the highly competitive VoIP landscape as startups,

large Internet companies, and incumbent telecom/cable companies enter the industry. For example, eBay assumed 20 to 25 percent long-term operating margins versus a more realistic 15 percent. We also took Wall Street analyst projections for the Skype unit and conducted multiple discounted cash flow analyses that covered several potential scenarios, from best case to worst.

Because the discounted cash flow analysis clearly showed that eBay's rosy forecasts had led the online auctioneer to a higher valuation than Skype was likely worth, we then examined whether a combination of real options for the future, including potential growth in new business areas such as pay-per-call services and mobile payments, as well as the possibility of eventually combining and divesting assets, could be used to justify the additional \$1.1 billion that eBay paid.

However, the real options analysis was less than promising: We found only a limited chance that Skype would help eBay grow its business beyond what it would be without the acquisition or that the combination would allow eBay to streamline its operations. Given the gap between our discounted cash flow and real options value and what eBay paid, even aggressive synergy assumptions representing 5 to 10 percent of the purchase price, or \$130 million to \$260 million, were not enough to justify the premium. In addition, this amount would be offset (partially or fully) by the costs associated with diversification and the cross-border nature of the deal. (Skype is based in Luxembourg.)

We thus concluded that in the eBay–Skype deal reality fell short of the hype. The premium could be justified only if very dubious assumptions were used and competitive dynamics were ignored — the latter especially questionable in a volatile industry such as

telecommunications. Furthermore, our analysis concluded that merely forming a partnership with a company like Skype, or building auction-related VoIP services internally, might have been sufficient to provide eBay with entry into new businesses that it hopes to gain from the Skype acquisition. Finally, the sustainability of any competitive advantage was far from guaranteed, which also undercuts the logic of the deal. Therefore, although the acquisition might have embodied an acceptable diversification strategy for eBay, the assumptions used to validate the purchase price appear to be overly aggressive and are difficult to justify through any combination of valuation models.

We are not arguing that all the recent Internet transactions are flawed. The acquisitions of DoubleClick and MySpace, in particular, appear to have been smart moves. However, we are raising the question whether overpayment in many of these deals is destroying shareholder value. In fact, we wonder whether, as has happened in other mature industries, excess cash and nonoptimal capital structure have fostered a lack of management discipline or even management hubris. Another potential explanation for the high values in these deals could be the intense competition for assets among a small number of large players. Executives in technology companies must make fast and risky M&A decisions in uncertain environments because industry rivalries are so intense. But there are real trade-offs that must be considered, namely the “gambling with house money” syndrome.

It was precisely this syndrome that fueled the first Internet bubble. We should remember that a sign of the end of the first bubble was highly speculative transactions. It is now pertinent to ponder whether some acquisitions of the current era will ever realize their

transformative promise. Irrational exuberance, the phrase made famous by Alan Greenspan, may once again be raising its frothy head. +

Resources

James Alleman and Eli Noam, eds., *The New Investment Theory of Real Options and Its Implications for Telecommunications Economics* (Springer, 1999): An examination of how real options can be applied to the telecommunications landscape. <http://amazon.com/dp/0792377346/>

“eBay to Acquire Skype,” September 12, 2005: The original announcement of the eBay–Skype deal, on the Skype Web site. http://about.skype.com/2005/09/ebay_to_acquire_skype.html

Raul Katz, “Irrational Exuberance: How the Telecom Industry Went Astray,” *s+b*, Summer 2003: What happens when demand myths, faulty forecasts, and financing traps converge. <http://strategy-business.com/article/21873>

Kevin Keasey and Philip Moon, “Gambling with the House Money in Capital Expenditure Decisions: An Experimental Analysis,” *Economic Letters*, vol. 50, no. 1 (January 1996): How management behavior may be altered under a variety of capital structure situations. <http://www.sciencedirect.com/science/article/B6V84-3VWPNX0-J/2/720fe98125de7640ab8136f6b3564afb> (subscription required).

Johnathan Mun, *Real Options Analysis: Tools and Techniques for Valuing Strategic Investments and Decisions* (2nd ed., John Wiley & Sons, 2005): A qualitative and quantitative description of the methods used in evaluating real options and why and when they are applicable. <http://amazon.com/dp/0471747483/>

Lenos Trigeorgis, ed., *Real Options in Capital Investment: Models, Strategies, and Application* (Praeger, 1995): An in-depth examination of the value of real options. <http://amazon.com/dp/0275946169/>

Real Options Group Web site: The mandate of this academic organization is to help managers embrace and capitalize on uncertainty by using real options in investment decisions. The group hosts an annual conference on the subject. <http://roggroup.com/>

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