



Comment on 'The Role of Book Income, Web Traffic, and Supply and Demand in the Pricing of U.S. Internet Stocks'

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The recent jolt in the pricing of technology stocks has seriously questioned the relevance of conventional wisdom to financial valuation, especially in a period of technological breakthrough. A particularly relevant question is the relative contribution of financial vs. non-financial information to the pricing of securities. It has often been maintained that for fast changing, technology-based industries, the relevance of non-financial data largely dominate accounting information. Accordingly, value drivers ignored in the financial statement can be constructed from information that is relatively easily accessible. This added to the already existing confusion on the wide gap between market and book values and the role of intangibles as a better accounting representation of the value chain.¹

Several studies have recently explored the value relevance of non-financial data in the Internet sector.² For the most part the literature has focused on web traffic measures of B2C Internet companies. However other non-financial corporate attributes such as strategic alliances and barter activities have also been also explored.³ The tested hypotheses were on the relation between value drivers and price levels, using a pooled times series cross section data of Internet companies. The comparative role of valuation factor before and after the crash was looked at Demers and Lev (2001) and even more directly in the current paper by Hand (2001).⁴

Hand (2001) provides a systematic analysis of the determinants of Internet valuation. It offers a rich interpretation of financial and non-financial data for com-

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¹ This applies even to established companies in the technology sector. Microsoft's current market value is approximately 350 billion dollar, of which 300 billion is not recognized on the balance sheet.

² For a literature review see also Ofek and Richardson (2001).

³ See Rajgopal et al. (2001) and Davis (2001), respectively.

⁴ Along a similar vein, Keating, Lys and Magee (2001) searched for factors that may explain the precipitation in the value of Internet firms in spring 2000. They consider income statement items, other financial variables such as cash burn and employee stock options, and the disclosures of web traffic statistics.

panies whose sole assets are intangible. The paper has many strengths. It provides an illuminating comparison of the characteristics of Internet firms compared to their non-internet counterparts. Also of importance is the definition of what is an Internet firm. This has been a tenuous issue. With the fast penetration of e-commerce, the borders between Internet and many non-internet companies is quite blurred.

Several measures of "eyeball" measures are used. As the author points out, the different types of web usage indicators are strongly correlated. Hence they are introduced separately into the econometric tests. The validity of the analysis is strengthened as the author considers both the pricing peak period (March 2000) and a point in time that is substantially later (December 2000). It is found that for both before and after the crash, web traffic is significantly related to stock prices. Unlike other studies, the paper considers the variables coined "supply and demand" (public float and open short interest in the stock). These variables have been widely regarded as the irrational forces behind inflated Internet values. Interestingly, the results of the paper fail to support this conjecture, as they find no link between public float and short interest to the prices of Internet stocks.

In conducting the tests, Hand uses ranked data. This is quite a novel approach to mitigate the problems associated with size influence. To recall, former papers on the subject aimed to deal with heteroscedasticity by deflating by the book value of equity. Such a deflation raises as many issues as it attempts to address: (i) a bias introduced by the sizeable number of observations that is removed when book value is either negative, or negligibly positive; and (ii) the distribution of the transformed variables is less powerful and highly skewed.⁵ In the current paper regressors are not deflated at all. Instead of undeflated raw values (or simply logs) Hand uses ranks (on both the RHS and LHS of the regressions). An inherent cost of rank regressions is that it is difficult to compute elasticities or to draw a cardinal inference from the coefficients.

One of the main conclusions of the paper is that the similarities found between the cross-sectional pricing of Internet and non-Internet firms make it unlikely that the pricing of Internet stocks during the early part of 2000 was entirely irrational. I would be a bit more cautious regarding this interpretation. What might have happened during the hype of the dotcom era is a spillover effect. Specifically, as the credibility of convention valuation was put in question, market sentiment and herding behaviour played a more heavy role. Once such a link between Internet and non-Internet firms is formed, the similarities found between the two market segments cannot be interpreted as evidence of market rationality.

A final caveat is in order. The attempt to study the behaviour of Internet stocks has been sometimes criticised on the ground that it is a too new phenomenon and not sufficient time has elapsed to allow a serious analysis. My own take on the sub-

⁵ This is based on a formal test conducted for Jorion and Talmor (2001). We have found that when deflating by either book value or sales, the regressors become highly skewed, leading to unstable results, as the regression standard errors are too small.

ject is rather opposite. The present state of the Internet sector provides a first-rate laboratory. During its inception period, the Internet sector consisted of companies that were newly formed and pure Internet based. For the case of web traffic data, this period is now about over. Although new security data is being added every quarter, the added data is likely to be more "contaminated." First, companies in the technology sector and outside it have increased their commitment to the use of the Internet either by informally embracing its use or by forming Internet divisions, reconstructing their strategic model (e.g., IBM), forming joint ventures or through straight out acquisitions. Interestingly, the process has also gone the other way, as some of the more successful Internet companies have purchased brick and mortar companies in a related line of business. Thus this window of pure intangible company data is not like to get expanded. Rather, the Internet sectors grows in maturity, to form attributes more similar to the rest of the hi tech sector, where intellectual property and other intangible value is a significant part but blended with more conventional assets in place.

References

- Davis, A. K. (2001) The value relevance of revenue for internet firms: Does reporting grossed-up or barter revenue make a difference? Working paper, Washington University.
- Demers, E. and Lev, B. (2001) A rude awakening: Internet shakeout in 2000, *Review of Accounting Studies*, forthcoming.
- Hand, J. R. M. (2001) The role of book income, web traffic, and supply and demand in the pricing of U.S. internet stocks, *European Financial Review* 5, 295-317.
- Jorion, P. and Talmor, E. (2001) Value relevance of financial and non financial information in emerging industries: The changing role of web traffic data, Working paper, University of California.
- Keating, E. K., Lys, T., and Magee, R. P. (2001) The internet downturn: Finding valuation factors in spring 2000, Working paper, Northwestern University.
- Ofek, E. and Richardson, M. (2001) Dotcom mania: A survey of market efficiency in the internet sector, Working paper, New York University.
- Rajgopal, S., Venkatachalam, M., and Kotha, S. (2001) Managerial actions, stock returns, and earnings: The case of business-to-business internet firms, Working paper, University of Washington.

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