

Capital Romance: Why Wall Street Fell in Love With Higher Education

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Abstract

With about two initial public offerings a year, the number of publicly traded degree-granting providers of post-secondary education in the United States has grown steadily ever since the Apollo Group (University of Phoenix, College of Financial Planning, etc.) went public in December 1994. To sell to investors ownership in companies that compete against traditional providers that do not have to produce profits to please investors and are favored by numerous regulatory and tax breaks (including tax-deductible donations), investment bankers and market analysts clearly must have “compelling” stories to tell.

This chapter presents an inventory of the arguments typically employed as well as an attempt to quantify their relative importance through a questionnaire that was sent to analysts following the education industry. I find that the market analysts’ arguments are reasonably congruent with modern economic and managerial theories of firms and markets and what I consider the relevant facts.

I. Introduction

The number of publicly traded degree-granting providers of post-secondary education in the United States has grown at a steady pace. Following the early example of DeVry, Inc. in 1991 and the Apollo Group, Inc. (University of Phoenix) in 1994, 10 degree-granting providers of post-secondary education have gone public over the past five years.¹ Most have grown at a brisk pace. More than half a dozen have already gone into the market for secondary offerings, and a couple for a third time. Together, these companies command more than 2 percent of the revenues flowing into higher education each year -- most of it originating from Title IV programs -- and about 10

¹ These 10 degree-granting providers are: The Argosy Education Group [ARGY, acquired in September 2000 by EDMC], Career Education Corporation Education [CECO], Computer Learning Centers [CLCX, in January 2001 filed a chapter 7 bankruptcy petition which halted all its operations], Corinthian Colleges [COCO], Education Management [EDMC], EduTrek International [EDUT, acquired in October 2000 by CECO], ITT Educational Services [ESI], Quest Education Corporation [QEDC, formerly EDMD; acquired in July 2000 by Kaplan Inc., a subsidiary of the Washington Post Company [WPO]], Strayer Education [STRA], WIX [Whitman Education Group]. For details see Ortmann (2000, currently under revision) which is a case study of these companies, as well as the Apollo Group [APOL, UOPX] and DeVry [DV] and recent entries into this market segment such as Sylvan's Online Higher Education division (which includes acquisitions Walden University and National Technical University) and the U.S. Education Corporation (which is bankrolled announced in July 2002 an investments of \$25 million each by private equity firms William Blair Capital Markets and ClearLight Partners and the acquisition of its beachhead Silicon Valley College. See also Ortmann (2002) which is a case study of a new breed of e-learning companies such as Digital Think [DTHK]. For both papers see home.cerge-ei.cz/ortmann, take the working papers link.

percent of the nation's campuses.

To sell to investors ownership in companies that compete against traditional providers that do not have to produce profits to please investors and are favored by numerous regulatory and tax breaks including tax-deductible donations (Facchina, Showell, & Stone 1993), investment bankers and market analysts clearly must have “compelling stories” to tell. This chapter presents an inventory of the reasons that analysts typically give, as well as an attempt to quantify the relative importance of these arguments through a questionnaire that I sent to analysts following the education industry. The merits of the arguments are then evaluated in light of modern economic and managerial theories of firms and markets. Drawing on portfolio recommendations of my correspondents, I also evaluate their predictive powers regarding the universe of companies discussed in this chapter.

The chapter is organized as follows: The next section briefly reviews the role of market analysts and then describes how I collected and evaluated the reasons that analysts typically give to persuade investors. The third section summarizes the results of a questionnaire through which I attempted that evaluation. The following section discusses how analysts' view of the fledgling for-profit segment of post-secondary education compares to modern economic theories of firms and markets. Based on analysts' allocation recommendation, I then assess whether Wall Street still is, and is likely to remain, in love with post-secondary education, and how good analysts' predictions were in this particular case. A conclusion follows.

II. An inventory of the reasons that analysts typically give to persuade investors

The market for market analysts. As of Fall 1999, the education industry – although the second largest industry in the USA – was followed only by a small number of analysts. A *Wall Street Journal* article (13 August 1999, p. A1) suggested that “half a dozen market analysts” track

education companies.² So small was the set of analysts at the writing of the first draft of this chapter that the *Wall Street Journal*'s 1999 installment of its annual "All-Star Analysts" section does not even list the education industry as one of its 55 industry categories. (It did list hospitals and HMOs -- the largest industry in the USA and an industry which went through a process of privatization about a decade earlier that many consider a template of things to come in the education industry, e.g. Hansmann 1994.)

What do market analysts do? Through the study of companies, managers, "business models", and the markets in which they are put to the test, market analysts try to identify likely "winners" and "losers".³ The resultant "buy" and "sell" recommendations of various gradations are meant to help managers of mutual funds, pension funds, and retail customers to beat the market

² Indeed, according to *Multex.com* [www.multexinvestor.com], an average of six analysts followed the publicly traded degree-granting companies at the writing of the first draft of this manuscript, ranging from one for smaller ones such as EduTrek International, Inc. to 14 for the Apollo Group, Inc., by all measures the largest one.

³ While market analysts have somewhat different functions than those of their colleagues who engineer equity offerings, or venture capitalists, it is likely that the pros and cons of a particular proposition are more or less the same across these three groups of market participants. The most important difference is that venture capitalists are the ones to come into the game early, and hence face a higher degree of uncertainty and risk which is reflected in venture capitalists' higher hopes for returns: KnowledgeQuest (1999) reports that venture capitalists aim for 30-40 % returns.

averages.

It is a well-established fact that an overwhelming number of mutual fund managers (and we can assume, pension fund managers) do not benefit on average from that advice (Carhart 1997). Furthermore, the recent implosion of Internet companies left many a retail customer with fractions of the value of stocks that analysts touted highly and publicly (but derided in drastic terms privately).⁴

⁴ The Investment Protection Bureau of the New York State Department of Law provided numerous examples of such misrepresentation when it went after Merrill Lynch in April 2002. In May 2002 New York State Attorney General Spitzer and Merrill Lynch announced an agreement that reformed investment practices in key aspects (such as a prohibition of investment banking input into analysts' compensation); it also levied a \$100 million penalty on Merrill Lynch (http://www.oag.state.ny.us/press/2002/may/may21a_02.html).

The basic problem was (is?) that market analysts were often affiliated with securities houses that are involved in initial and follow-up public offerings (“underwriters”).⁵ Such an arrangement puts market analysts in a conflict-laden situation as they may feel obligated to promote those equities in which their investment bank has a vested interest rather than those that they consider better bets. The fact that, as in the case of Merrill Lynch, market analysts’ compensation was linked to investment banking activities added to the incentive incompatibility of the situation.

Indeed, already Lin and McNichols (1998) found – long before the bursting of the Internet bubble – that three-day returns to lead underwriter analysts’ “hold” recommendations are significantly more negative than those by unaffiliated analysts, suggesting that lead underwriter analysts’ recommendations are affected by the moral hazard problem they face. Lin and McNichols also found that lead and co-underwriter analysts’ growth forecasts and recommendations were significantly more favorable than those made by unaffiliated analysts. These and similar findings by other authors reinforced the wide-spread view that market analysts are glorified sales people who routinely paint too rosy a picture of the companies they promote (e.g., Brown 1993; Loeffler 1998; Amir & Ganzach 1998; Chaney, Hogan, & Jeter 1999). Interestingly, however, Lin and McNichols furthermore found that lead and co-underwriter analysts’ earnings forecasts are not generally greater than, and post-announcement returns not significantly different from, those of unaffiliated analysts’ recommendations.

⁵ For example, Block (Nationsbanc), Cappelli (Credit Suisse First Boston), Gay (Thomas Weisel Partners, formerly Montgomery Securities), Locke (Banc of America), Peterson (US Bancorp Piper Jaffray), Soffen (Legg Mason Wood Walker), Stefan (ABN-AMRO). Affiliations as of 1999.

There is by no means consensus on this issue: work by economists Keane and Runkle (1998) has contradicted the widespread view that stock market analysts' earnings forecasts and recommendations are too optimistic. Francis, Hanna, & Philbrick (1997) find, in addition, that stock market analysts do not seem to be easily swayed by management presentations, as these authors find no evidence that post-presentation forecasts are less dispersed, more accurate or less biased than their pre-presentation forecasts.⁶ One possible explanation for these results, if they survive replication with more recent data, is that reputation might constrain moral hazard in financial markets. Results suggestive of such an explanation exist (e.g., Chemmanur & Fulghieri 1994; Nanda & Yun 1997; Clement 1999).

Constructing the inventory of arguments. The inventory presented here was compiled through a content analysis of 15 interviews that the *Wall Street Transcript* [from now on *WST*; www.twst.com] conducted between May 1997 and April 1999 with a total of 10 market analysts, 8 on the "sell-side" and 2 on the "buy-side".⁷ The arguments were then arranged in three sets: those related to the economics of the post-secondary education industry in general such as demographic and societal changes, those that suggest why one might want to invest in publicly traded post-secondary education companies, and those that suggest why investing in this fledgling segment of the education industry might not be a good idea.

⁶ In light of Abrahamson and Park's (1994) finding that managers tend to conceal negative organizational outcomes, the skepticism reflected in stock market analysts' reactions seems appropriate.

⁷ Cappelli, Gay, Hermann & Craig (Everen), Odening (Salomon Smith Barney, formerly Hambrecht & Quist), Saltzman & Stefan (ABN-AMRO), and Soffen from the sell-side and Ankrum (Janus) and Cheseby (T. Rowe Price) from the buy-side. Three of the market analysts (Cappelli, Gay, Odening) were interviewed twice, one (Soffen) thrice. All affiliations as of 1999.

Evaluating the relative importance of the reasons analysts typically give. One way to evaluate the relative importance of arguments meant to entice pensions and mutual fund managers to invest in for-profit education providers is to count how often they were mentioned by the analysts participating in the *Wall Street Transcript* interviews. However, a number of the interviews were conducted simultaneously, covered additional topics, and were semi-structured⁸; frequency of arguments therefore is likely to be a noisy measure of their comparative importance.⁹ Since I was interested in getting a sense of the relative merits of the arguments, I sent -- in mid-September 1999 -- a questionnaire containing the three sets of arguments in the inventory to a set of 10 analysts.¹⁰ To make the evaluation criterion unambiguous, I told my correspondents that “with this present questionnaire we are trying to quantify the importance of the factors thus [= through the content analysis, A.O.] identified as being responsible for making post-secondary

⁸ Among the multiple-participant-settings were two roundtables with four participants each and two interviews with two participants each.

⁹ It turns out that a simple counting of arguments led to a similar assessment of their relative merits, especially as regards the first two sets of questions.

¹⁰ Among these correspondents were all those sell-side analysts that participated in the *Wall Street Transcript* sessions. Since Saltzman & Stefan (ABN-AMRO) and Herman & Craig (Everen) were in the same firm, I sent them one questionnaire only. In addition, I sent a questionnaire to four analysts that I had become aware of during my research (Bloch, Locke, Paris, Peterson).

education a promising investment”.¹¹ The analysts were asked to rate each reason on a 5-grade scale that runs from 1 to 5, 1 being “unimportant” and 5 being “among the 4 or 5 most important factors”, with 2 = “less important”, 3 = “important”, and 4 = “more important”. A small token of appreciation of 20 dollars was attached to each questionnaire. Cover letter and questionnaire are reproduced in the Appendix .

¹¹ I also specified that the investment should be promising for “the foreseeable future” and instructed the analysts, “when rating the reasons listed below, please use a 5-year perspective.” This specification was meant to reduce possible ambiguities among my correspondents about the relevant time horizon.

Eight of the 10 analyst correspondents returned the questionnaire, one of them anonymously.¹² Mean and median response was computed for all responses. On average all reasons listed in the questionnaire were considered to be somewhat important as the lowest mean was 1.9 (less important). Given the relatively small number of correspondents (and therefore the possibility of outliers distorting averages) as well as the fact that the scale could be interpreted as non-cardinal, I used the median to classify the answers of my correspondents. Specifically, arguments with medians of 4, I classified as the “most important” (***) ones, those with medians of 3 as “important” (**), and those with medians of 2 as “less important” (*).¹³ Of the 26 arguments that I asked my correspondents to rate, 9 garnered triple star, 12 two star, and 5 one star distinction given this classification.¹⁴ While it is tempting to compute dispersion measures, due to the non-

¹² Thanks are in order to Gregory Cappelli, Jerry Herman, Michael Locke, Alex Paris, Robert Peterson, Matthew Stefan, Scott Soffen, and the anonymous correspondent.

¹³ There were 6 cases where the median required averaging. The classification of these arguments was done through rounding that relied on the mean. Clearly this is a somewhat arbitrary procedure. The classification, however, is rather robust to various specifications and does not in any significant manner affect the narrative that will be constructed presently from this inventory.

¹⁴ A ranking of the responses according to mean is highly congruent, as the first draft of this manuscript [see home.cerge-ei.cz/ortmann/] demonstrates. Classifying arguments with means between 3.8 to 4.3 as the “most important” ones, those with means ranging from 2.8 to 3.6 as “important” (**), and those with means ranging from 1.9 to 2.5 as “less important” (*), leads to 7 triple, 14 two, and 5 one star classifications. In fact, only two of 26 arguments switch their classification, namely “attention” and “barriers to entry” both of which are upgraded.

cardinality of the scale it is not clear what such a measure would mean. Let me point out though that opinions ran the gamut on some issues (e.g., “barriers to entry”) while on others they were tightly focused (e.g., “economies”).

III. The relative importance of the reasons that analysts typically give to persuade investors

In the following, I integrate the arguments in a narrative that distinguishes the three sets of reasons that I identified through the content analysis. At the outset, it is interesting to note that almost all arguments concerned with the economics of post-secondary education and the reasons why one might want to invest in publicly-traded post-secondary education companies were rated “most important” or “important”. In contrast, most arguments reflecting reasons why one might not want to invest in those companies drew a “less important” rating.

The economics of (post-secondary) education. The for-profit education industry had (and still has) plenty of competitors in the fight for investors. Most prominently, there was the rush to settle cyber-space, which attracted massive and well-documented capital flows and capital gains (and a whole industry to comment on them, e.g., Multex.com). More recently, there was a general unwillingness of investors to invest in all in a market whose slide seems to be unstoppable. What then qualified (and still qualifies) the education industry, and in particular, the post-secondary education industry as a potentially attractive place for investments?¹⁵

¹⁵ After a year-long drought, education venture capital investments quadrupled (both in number of transactions and volumes) in the second quarter of 2002 relative to the first quarter according to market research firm Eduventures. The \$50 million investment of two private equity firms in newcomer U.S. Education Corporation – a company that apparently tries to acquire private career colleges offering information technology and allied health associate and certificate programs – in the third quarter is

another indication that, after the drought and the accompanying consolidation phase documented in footnote 1, funds are more easily accessible again.

The analysts agreed that a major driver of the emergence of for-profits was the shift to a knowledge-based and technology-driven economy that pays an ever higher income premium to those with IT-related skills (“income premium”***). This income premium, and the underlying technological drivers, are seen as creating an increased demand for education on the part of adults (“career-oriented continued education”**) and as contributing to the increased demand for post-secondary education on the part of students who have just graduated from high school (“career-oriented education”***), with another driver of this development being the “baby boom echo” (“more education”**). These are indeed well-established facts (e.g., Herman et al. 1999 - an excellent primer drawing on U.S. Department of Education and National Center of Education Statistics data.)

The analysts agreed that one of the features that makes the education industry interesting are its very predictable revenues and earnings (“earnings visibility”***). That government funding is, and will be, a steady source of significant revenue was considered an important argument (“government funding”**). Even more important, in the eyes of the market analysts, is the widely held belief that the post-secondary education industry is essentially recession-proof, if not countercyclical, and therefore a play that might reduce the volatility of one’s portfolio (“a/countercyclicity”***). Analysts also believe that there is an increased need for IT-related skills internationally from which U.S. education companies could benefit (“international demand”**). These, too, are well-established facts (Herman et al. 1999).

Why one might want to invest in publicly-traded post-secondary education companies.

The arguments so far suggest why the post-secondary education industry is likely to encounter favorable demand conditions for the foreseeable future. Such a friendly environment, however, while positive for public and private non-profit higher education providers, does not necessarily translate into a promise that the stock price of publicly traded companies will fare well. After all, not only do they have to deliver reasonable profits (= dividends, retained earnings) to please

investors, they also face competition from public and private competitors (Ortmann & Paalandi 2002, Winston 1997, 1999) that do not have to produce profits to please investors, that are advantaged through numerous tax and regulatory breaks (see Facchina, Showell, & Stone 1993), and that have access to resources such as foundation grants not available to proprietary schools .

Analysts work under the assumption that publicly traded companies are likely to have for the foreseeable future, in addition to their high earnings visibility, high revenues and earnings growth (“high growth”***). In the *Wall Street Transcript* interviews, one analyst predicted 6 - 8 % “same store sales” growth, and 12 - 16 % overall growth rates as sustainable for well-managed companies.¹⁶ Other analysts seemed to agree with those estimates. Such growth would be, by all measures, a multiple of the growth of non-profit competitors. In the *Wall Street Transcript* interviews, another analyst suggested that a better performance measure of the underlying “business model” was returns on equity and that on those grounds the better players in the industry had done outstandingly well. In their questionnaire responses analysts confirmed that sentiment, qualifying “high returns” (***) as another of the most important reasons why one might want to invest in publicly-traded post-secondary education companies.

The strong expectations of higher growth and higher returns prompts the question: How can for-profits compete successfully in an industry populated with subsidized and otherwise advantaged competitors? Analysts suggested that for-profits understand, and understand better than their non-profit competitors, that the education industry is a service industry first and foremost, and that those who want to survive have to focus on students’ and their prospective employers’

¹⁶ APOL currently has enrollment (revenue and earnings) growth of more than 20 % (nearly 30 %), with enrollment growth in its top five geographic markets being about 18 % and growth in its online division clocking well in above 50 %. The other major players have less out-sized but still impressive rates nonetheless.

satisfaction instead of alternative priorities such as faculty research (“focus”^{**}). According to the analysts, this is expressed in courses that are offered at convenient times and locations (“flexibility”^{**}) and in the fact that for-profits pay religious attention to retention, graduation, placement, and referral rates (“attention”^{***}), as reflected in for-profits’ attempts to ferret out what prospective employers of their graduates want.

While “focus”, “flexibility”, and “attention” may lead to increased revenues, they do not necessarily produce good earnings. Regarding the cost side, analysts consider it to be important (^{**}) that publicly-traded education companies operate under a “pricing umbrella” spanned by inefficiently run public and private non-profits which allows them to increase prices at or above the rate of inflation. It is clear from the contexts of the *Wall Street Transcript* interviews and roundtables (e.g., “focus”) that the use of the adjective “inefficient” here refers to faculty paying too much attention to their research instead of teaching (see also Herman et al. 1999).

The analysts in the *Wall Street Transcript* interviews had identified as two key supply-side advantages of for-profits the significant economies of scale in marketing, regulatory compliance, and other functions that can be centralized and the fact that those publicly-traded education companies who manage to navigate the regulatory environment successfully can rely on regulations as an effective barrier to entry for new enterprises. The questionnaire respondents agreed and classified these two arguments as important for the decision to invest in for-profit secondary education (“economies”^{**}, “barriers to entry”^{***}).¹⁷ The argument that competition through new entrants is higher in the training segment of post-secondary education

¹⁷ This poses the interesting question of why these advantages are suddenly central drivers of growth. Three explanations come to mind. The most likely explanation is, as evidenced by the fact that most initial and follow-up public offerings have happened since December 1994, that proprietary providers have gained the critical mass that allows them to capture those economies. Second, it is quite possible that the advances in information technology that we witnessed over the past decade (e.g., McKinsey 1992, 1993) were a *conditio sine qua non*. Third, the public perception of for-profit education has clearly changed (KnowledgeQuest 1999; 1999a); for-profits have won respect even in Congress (Burd 1998; 2001).

(“competition”**) was also considered important, and validated indirectly the claim that post-secondary education is, in key respects, different from other parts of the education industry.

While the claim that working adults represent the primary market for distance education programs (“primary market **”) was also considered important, the claim that distance education allowed publicly traded education companies to make end-runs around state education boards and accrediting agencies was considered less important (“end-run”*).

Why one might not want to invest in publicly-traded post-secondary education companies.

It is in the nature of interviews and roundtables involving analysts that risk factors are featured less prominently. Still, several caveats were mentioned in the *Wall Street Transcript* interviews and I included them as a third set of arguments in the questionnaire.

Surprisingly, market analysts considered as less important the argument that direct and indirect subsidies to private and public non-profits puts for-profits at a competitive disadvantage (“subsidies”*). Likewise, differential enforcement of regulations was considered less important (“stricter enforcement”*) as a source of competitive disadvantage. Seemingly inconsistent with that assessment, the argument that state education boards and accrediting agencies are typically populated by non-profit school officials and faculty who take a skeptical view of for-profit educational companies was considered important (“skeptical view”**).

Turning from external to internal problem potentials, analysts considered as important the fact that many degree-granting publicly traded post-secondary education providers have relatively short operating histories that complicate an assessment of the quality of the management (“short operating histories”**). That verdict is maybe not that surprising as it absolves the respondents to some extent from judgements that turn out to be mistaken. Seemingly inconsistent with analysts’ assessments of the problems inherent with short operating histories, the fact that many for-profit managers have significant insider stakes was considered less important (“insider management and control”*), as was the often-heard argument that the overwhelmingly practiced business model of

leasing physical plant and hiring temporary and/or part-time faculty could represent a significant “contractual risk” (*).

Discussion. The picture that emerges is, nuances aside, reasonably congruent with the kind of argument one typically finds in company documents and analyst reports (for the best, and most “academic” among many, see Herman et al. 1999). One key difference is the degree of emphasis on risk factors that pervades SEC filings but is not as highly rated by analysts. Most likely, this reflects the differential institutional necessities that companies and analysts faced (at least in the pre-Enron scandal time)..

IV. How do analysts’ views compare to those of modern economic theories of firms and markets? And how do they match the facts?

“Wall Street looks at profitability and earnings and that drives stock prices.”
(An anonymous education industry analyst in *The Wall Street Transcript* 5/18/98)

“This money [aid programs that Ohio state legislators made available to students in for-profit colleges] is not necessarily going to educate more students or to improve education. It’s a scholarship ultimately going into profits.”
(Roderick G.W. Chu, chancellor of the Ohio Board of Regents)

“ ... we are pleased to be reporting record revenues and earnings for fiscal 1998. It is particularly satisfying that our graduates continue to achieve high job placement rates and that their average starting salaries are increasing at substantially greater than the inflation rate. This is what our business is all about.” (Robert B. Knutson, CEO, Education Management Corporation)

On Wall Street, we are told by one of the *Wall Street Transcript*’s interviewees, it is earnings and profitability that drive stock prices. It is the P-word that agitates people like Chu. What Chu does not mention is that state funds (and the substantial indirect subsidies through tax and regulatory breaks) go into something in non-profits too, quite possibly into activities that are not tied to the mission of non-profit colleges and universities or into outright wasteful activities (James 1978; Massy & Zemsky 1994; Ortmann & Squire 2000). The possibility of profits poses the intriguing question of how earnings and profits can be generated by participants in an industry

that is populated by directly and indirectly subsidized competitors.¹⁸ And it poses the equally intriguing question of how these new entrants can produce for the foreseeable future both high growth in revenues and high earnings.

¹⁸ A referee noted that “federal subsidies to higher education have been shifting from demand-side to supply-side (tuition) subsidies in the U.S., and that the latter subsidies have been opened up to for-profit institutions to a substantial extent, providing a considerable boost to the demand for their services. State-level subsidies remain heavily on the supply side, but are evidently declining on a per-student basis and seem likely to continue to decline, and may ultimately be converted in many cases to demand-side subsidies as well.” True. This should, however, not distract from the fact that for-profits have to produce profits to please their investors and that they do not have available to them numerous regulatory and tax breaks including tax-deductable donations, foundation grants, etc. While in other words, the playing field is less uneven, it is not level yet.

One answer to that question is captured by the importance that analysts assign, in unison with most companies' SEC filings, to the two key supply-side advantages that for-profits are argued to have: the significant economies of scale in marketing, regulatory compliance, and other functions that can be centralized ("economies"**) and the fact that those publicly traded education companies who manage to navigate the regulatory environment successfully, can rely on regulations as effective barrier to entry ("barriers to entry"**). Analysts' belief that competition through new entrants is higher in the training segment of post-secondary education re-iterates the belief that those who have successfully hurdled the regulatory barriers to entry in higher education stand to reap significant advantages ("competition"**).¹⁹ It is noteworthy, though, that, although analysts agree on the importance of economies of scale, they disagree on the importance of the barriers- to-entry argument, with ratings running the gamut from "most important" to "less important".

¹⁹ Two representative views:

"This industry by definition is one with very high barriers to entry. ... it's perhaps one of the most heavily regulated industries in the economy. ... If you want to talk about what keeps us awake at night, it's the concern about the shifting sand of this regulatory oversight and our ability to adapt to it and stay on top of it. ... If there's one thing that I really watch, that's the piece."

(David G. Moore, President & CEO Corinthian Colleges, Inc., in a *WST* interview on 6/4/1999)

"Regulation is both a benefit and barrier. There are significant costs and administrative burdens for being in this regulated industry. But by the same token, it also raises the hurdle rate for potential or would-be competitors to enter the market." (Jerry R. Herman, analyst, in a *WST* interview on 4/26/1999)

Knutson gives another important answer to the question of why earnings and profits are generated publicly traded education companies in an industry that is populated by directly and indirectly subsidized non-profit competitors. The essence of his demand-side argument is that post-secondary education is an industry that is based first and foremost on quality and, since the nature of education does not easily allow for an assessment of actual quality, on expected quality or reputation. This is why placement rates and increasing starting salaries matter to Knutson.²⁰ Indeed, Knutson's conception of what his business is about flies in the face of wide-spread and popular conceptions that others have proposed as rationale for the *raison d'être* of higher education as we knew it (e.g., Winston 1997, 1999) and that also underlies the dominant rationale for the existence of private and public non-profits (Ortmann 1996; Ortmann & Kuhrt 2002; Young & Steinberg 1995, pp. 20-21; Oster 1995, pp. 18-19; Hansmann 1996, p. 228). In brief, the traditional view is that reputational equilibria can not work in markets where the quality of a good cannot be ascertained upon purchase because sellers of adjustable goods and services such as car repairs, organic fruit, education, and health, day, and elder care, could and would like to rip off consumers by promising goods and services of high quality, collecting a corresponding price, and then delivering goods and services of inferior quality (Akerlof 1970).

In a series of intriguing contributions, Hansmann (1980, 1996, chapter 12) suggested that the dire consequences of information asymmetries ultimately drove the emergence of entities that were constrained by a non-distribution constraint, that is, non-profits. Sellers of adjustable goods and services, Hansmann argued, were prevented by the non-distribution constraint and its side-kick, the reasonable-compensation constraint, from ripping customers off. Being constrained from

²⁰ Knutson's argument is prominently mentioned by most companies and their CEOs, e.g., Strayer's Bailey: "Producing satisfied graduates who have successful careers increases our referral rates and strengthens our reputation." (*WST* 6/4/1999). In fact, reading SEC filings and message boards it becomes quickly clear that it is management's lack of understanding of reputational issues that hurts companies such as CLCX, EDUT, and WIX. See also footnote 24.

distributing profits, managers of nonprofits would have no incentive to maximize profits by ripping customers off where customers may refer to students (and their parents) as well as donors.

Akerlof's argument, and by implication Hansmann's, was countered by Heal (1976) who pointed out that the essence of the asymmetric information problem could be framed as a one-shot prisoner's-dilemma-type game. He also pointed out that the likely outcome of an indefinitely repeated prisoner's dilemma game was very different from that of a one-shot game. Indeed, seller-buyer interactions tend to be of the indefinitely repeated kind, such as buying organic fruit at the local farmers' market or grocery store. Heal argued, furthermore, that even for car repairs, education, and health, day, and elder care (where sellers typically interact on a less frequent basis with any one customer), markets -- possibly enforced by warranties and what not -- would evolve effective means of reputational enforcement.²¹ The ramifications of the argument are dramatic. As in the indefinitely repeated prisoner's dilemma game, it is now in the interest of the seller to provide the consumer with a product that matches her or his expectation. Heal's argument has become the corner stone of modern theories of firms and markets all of which are built on reputational enforcement in exactly the kind of situations that allegedly require nonprofits to step in (Klein &

²¹ There is a wide-spread misconception that repeated games do not apply in a context in which people only invest in something like a college education. Game-theoretically it does not matter whether a firm plays against the same person all the time or a series of people (Kreps 1999, pp. 66 - 72) – if, and that's an important conditional, the firm has a reputation to protect and the value of that reputation always exceeds the short-run gains it could obtain from sullyng its reputation. I have argued elsewhere that this is indeed the situation in which many a higher education firm finds itself these days (Ortmann 1997). One might object that it takes time to build a reputation. It is therefore interesting to note how quickly for-profits have managed to overcome the negative connotations that were attached to their enterprise until very recently (Burd 1998, 2001; Ortmann 2000).

Leffler 1980, Holmstroem & Tirole 1989, Kreps 1990; see also Ortmann 1999 for an analysis of the writings of an early contributor to that debate).

It is here where Knutson's sense of what his business is about comes into play. Increasing placement rates and increasing starting salaries beget more referrals which, in turn, reduce the costs of marketing and so on.²² Educational institutions, in other words, are caught in repeated game scenarios and reputational equilibria which will be swiftly enforced. The argument here is similar to the argument that applies to financial markets. Analysts or fund managers who underperform will soon find the demand for their services dwindle. Just as systematically overestimating earnings is not evolutionarily stable for market analysts, not providing promised quality is evolutionarily not stable for for-profit companies (Ortmann 1997). When analysts talk about "focus" and "flexibility" and "attention" as important arguments, this is what they talk about implicitly. As one of my correspondents (Soffen), succinctly put it, "When I'm trying to judge the quality of a company's product, one of the first data points I look to is the percentage of their new students derived from referral. ... I would emphasize the importance of referrals as being a low-cost, high-conversion method of obtaining leads." (WST 5/18/98) An obvious consequence is that those for-profit providers that do not play the reputation game successfully won't stand a chance to collect "buy" recommendations.

²² In their SEC filings the companies enumerated in footnote 1 typically claim that between one third and two third of their students come from referrals. See Ortmann 2000 for details.

Even if they do, though, they are not home free, as investors react quickly to both real and perceived problems. To wit, many of the companies in the universe we are concerned with here were way off their highs at the writing of the first draft of this paper (October 1999), some dramatically so.²³ One of the interesting aspects of the decline in the stock prices of for-profit providers of higher education has been that some firms have suffered more than others. Soffen sees the “tremendous flight to quality among the stocks” driven by reputations: “The stocks that have performed the poorest ... have a cloud overhanging them. The stocks that have performed the best ... are perceived by Wall Street to be clean as a whistle.” (lit.cit.) Reputation, in other words, is the name of the game. It’s a point that market analysts, and most of the companies represented in this study, seem to understand well. A for-profit education company that does not understand that reputation, and ultimately, expected quality matter, is likely to learn that lesson the hard way as illustrated by the travails of companies such as Computing Learning Centers, EduTrek, Whitmann, or, very recently, that controversial private operator of public schools, Edison Schools.²⁴ Even

²³ Had one bought one share of each of the stocks mentioned in footnote 1 at their 52-week high (in most cases early in 1999), one would have paid a grand total of \$ 275. At the end of September 1999 this amount would have been worth less than \$150, for a loss of approximately 45 % of the original investment and not taking into account the opportunity cost of investing that money elsewhere. That said, it is noteworthy that shareholder returns since the IPOs equaled 4 - 11 times that of the S&P 500 Index and that the comparative returns of a market cap weighted post-secondary index beat the S&P 500 Index by a factor of more than 3 (Herman et al. 1999, pp. 52-3). Also, between the last trading day in September 1999 and the last trading day in September 2000, the stocks enumerated in note 1 approximately doubled in value. Between the last trading day in September 2000 and the last trading day in September 2001, a portfolio of 1 share each of APOL, DV, EDMC, CECO, ESI, STRA, COCO, and WIX would have appreciated approximately 44 % - a remarkable performance by any standard but in particular in light of the miserable performance of US stock markets during that time. Likewise, between the last trading day in September 2001 and the last trading day in September 2002, a portfolio of 1 share each of the same companies would have appreciated approximately **[will insert into book galleys]**

²⁴ To take Computing Learning Centers: CLCX’s travails started on March 10, 1998, when the Attorney General (AG) of Illinois filed a complaint against CLCX in Circuit Court asserting that the company had violated the Illinois Private Business and Vocational Schools Act and the Illinois Consumer Fraud and Deceptive Practices Act at its Schaumburg Learning Center. The news of the action cut the price of the stock by more than half. Three months later, on June 8, CLCX and the AG agreed on a consent decree. The price, by then even lower (in reaction to a flurry of suits charging that

companies like Sperling's APOL and Knutson's EDMC (both of which have stellar reputations among analysts; see the off-record interviews published by *The Wall Street Transcript* on 4/26/99 and 5/18/98) are highly susceptible to attacks on their reputation.²⁵

the CLCX insiders realized profits by trading their shares while in possession of material adverse information), rebounded sharply in June and July of that year, only to collapse in August in reaction to further bad news (e.g., lawsuits against learning centers in California, Michigan, New Jersey, Texas, and Virginia). CLCX's stock price (which in early 1998 was above \$35) languished below \$5 for much of 1999, effectively preventing CLCX from issuing equity to finance its growth. CLCX's very public travails also negatively affected its student population figures, a decline in working capital and available cash balances, increasing utilization of credit lines, sale -- two years after its acquisition -- of profitable Delta College to generate cash, i.e., "a deterioration of our financial condition as evidenced by our declining financial ratios" (Annual Report/10-K for fiscal 2000). In early 2000, CLCX's top management was forced out; in January 2001, CLCX had to declare bankruptcy and halted all of its operations.

²⁵ As regards APOL, in the Fall of 1999 (at the time the questionnaire was sent out) its stock price was about 50 % off its high. This development was attributed by several analysts to the two-year investigation that the Department of Education (DE) undertook. However, APOL's stock price did not recover significantly upon the news that the final program review determination letter essentially exonerated APOL: "(The DE) largely agreed with Phoenix that many of the university's problems in managing federal student-aid funds were the result of its rapid expansion of the past several years."

(*Chronicle of Higher Education*, 8/13/1999, A43) As regards EDMC, its stock got pounded after it announced , in September 1999, that 145 Houston-area students had brought a suit against the Art Institute of Houston, alleging they were defrauded by their school. EDMC's stock price (which in mid-1998 was above \$35) fell, in late1999, and for several months was below \$10. It has recovered significantly since then. The same is true for APOL which in addition issued a tracking stock [UOPX] for its University of Phoenix Online operation on September 29, 2000.

In sum, based on my own research (Ortmann 2000, Ortmann & Kuhrt 2000, Ortmann & Squire 2000) and what I consider to be the essence of modern theories of firms and markets -- “focus”, “flexibility”, “attention” --, I believe analysts paint a reasonably accurate picture of threats and opportunities. There are two areas where I would quibble with analysts’ view of things. First, I side with those analysts who believe that (regulatory) barriers-to-entry are an important issue.²⁶ Second, I believe that the contractual risk (in particularly as regards management and IT-faculty) is considerable and is not well-understood by analysts.

V. Capital Romance: Is Wall Street still in love with higher education?

Until fall 1998 most for-profit providers of post-secondary education had seen steady and rapid growth of revenues, earnings, and stock prices. Stock prices then started to drift downward dramatically, undermining for-profits’ ability to use Wall Street as their readily available endowment.

The decline of stock prices during Spring 1999 (see footnote 23) left many an analyst puzzled and experimenting with ex-post rationalizations that were in some cases in marked contrast to the rather optimistic price targets the very same analysts predicted as late as April and May of that year. At loss for a clear explanation, market analysts referred to “sentiments” that have turned negative. Among the more tangible reasons that market analysts paraded was that stock prices were not supported by enrollment and earnings numbers and that run-ins with regulators or very public suits filed by former and present students took their toll (Blumenstyck 2000). Overall, the reasons for the decline seemed poorly understood and opinions about their justification were quite

²⁶ My view is supported by KnowledgeQuest’s 1999 ranking of quality of management and regulatory environment as the highest risks. Note that this ranking is based on surveys of venture capitalists, i.e. people who put their money where their mouth is.

diverse.

To better understand analysts' commitment to degree-granting providers of post-secondary education, I asked my questionnaire respondents two allocation questions. With one question I tried to figure out how they rated the prospects of publicly traded degree-granting providers of post-secondary education relative to other areas such as K-12 and education products. With the other question I tried to understand which publicly traded degree-granting providers of post-secondary education are still considered a good bet, and which not.

How analysts rated the prospects of publicly traded degree-granting providers of post-secondary education relative to other education areas. I asked the analysts to assume that composite stocks exist for four commonly distinguished categories, pre-kindergarten/child-care, K-12, degree-granting for-profit provider of post-secondary education, and education products. On average my analyst respondents would invest exactly 50 % in degree-granting for-profit providers of post-secondary education, 33 % in K-12, with education products (11 %) and pre-K/child-care sharing the remainder. This allocation, interestingly, contradicted the actual flows of venture capital.²⁷

Which companies was still considered a good bet in the Fall of 1999 (second half of September 1999), and which not. The responses reflected three clearly separable sets. APOL, DV, and EDMC each garnered around 20 %, CECO, ESI, and STRA each garnered around 10 %

²⁷ KnowledgeQuest's education venture capital index suggests that for the past three years post-secondary education companies have attracted insignificant amounts (less than 6 %, for a total of less than \$ 40 million), while companies developing education products attracted close to 50 % of the venture capital (KnowledgeQuest 1999, p. 10). These numbers seem to reflect the fact that the viability of publicly-traded post-secondary education companies has been sufficiently demonstrated while the prospects of many technology-related ventures are less clear.

with the other six candidates being distinctive also-rans (QEDC = 4 %, EDUT = 3%, COCO = 2 %, CLCX = 1 %, WIX = 1 %, and ARGY = 0 %).

How good were those predictions? I documented in footnote 19 above that had one bought a single share of each of the stocks mentioned in footnote 1 at their 52-week high (in most cases early in 1999), one would have lost of approximately 45 % of the original investment by the last week of September, not taking into account the opportunity cost of investing that money elsewhere. Since then, however, education stocks have gone through a remarkable recovery, having regained all their losses. Interestingly, these gains were essentially the same for all three sets.²⁸ While several of the smaller players floundered, the also-runs in analysts' appreciation were rescued by the stellar performance of QEDC (which was acquired in July 1999 by Kaplan for roughly twice its price) and COCO (which tripled its share price in that one year and became the best performer of the companies in footnote 1). For believers in the efficient market hypothesis, this result will not come as a surprise. Our little case study also confirms that market analysts do not seem to have any privileged knowledge. This result is in line with findings in the literature on analysts' forecast accuracy that I documented above.

VI. Conclusion

Market analysts' understanding of the reasons that continue to drive the rapid emergence of a publicly traded for-profit higher education segment does not seem to give them an edge in

²⁸ Specifically, I computed the change in stock price with the closing prices of the last trading days in September 1999 and 2000, respectively. Adding up the price for each of the stocks, the overall return was 97% during that year, with the six smaller players having a higher return (about 120%), APOL, DV, EDMC providing a 94% return, and CECO, ESI, and STRA providing a 85% return. The performance of APOL's tracking stock UOPX is not reflected in these computations.

predicting the success of individual companies. However, their arguments allow a compelling narrative about the reasons Wall Street fell in love with higher/post-secondary education in the first place and is likely to remain in love with it for the foreseeable future. Market analysts' interpretation of the universe of publicly traded degree-granting providers of such education are reasonably congruent with both facts and modern economic theories which emphasize incentive alignment problems and the importance of reputational enforcement of goods and services whose quality can be adjusted.

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VII. Appendix: Questionnaire and cover letter plus raw data, means, and medians

[This is the complete questionnaire, as it was sent out, plus raw data, means, and comments. Additions to the questionnaire are in italics.]

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The following questionnaire addresses **an important part of the post-secondary for-profit education industry** -- the universe of **degree-granting and publicly traded companies** (i.e., APOL, ARGY, CECO, CLCX, COCO, DV, EDMC, EDUT, ESI, QEDC, STRA, and WIX.)

Many of these companies have done remarkably well with their IPO and thereafter. For example, adjusted for stock splits, the IPO price of APOL in December 1994 was \$1.63. Presently, even though most of these companies are way off what their high was in Fall 1998, Multex.com's average consensus estimates indicates that 9 of the 12 are still rated a "buy" and none a "sell". This indicates that **as a group the set of publicly traded providers of degree-granting post-secondary education defined above is still considered a promising investment for the foreseeable future.**

A number of reasons are being given for this. Drawing heavily on research reports and interviews with market analysts between mid-1997 and mid-1999, **we have compiled a list of these reasons.** With this present questionnaire we are trying to quantify the importance of the **factors** thus identified as **being responsible for making post-secondary education a promising investment.**

In part I, we ask you to rate each reason on a 5 - grade scale that runs from 1 to 5, 1 being "unimportant" and 5 being "among the 4 or 5 most important factors", with 2 = "less important", 3 = "important", and 4 = "more important".

In part II, we ask that you provide us with two allocation recommendations.

This questionnaire has been sent to market analysts who we believe follow the education industry. If our information is erroneous in your case, we ask that you let us know. (You may keep the attached token of our appreciation.) The number of analysts that follow the education industry is rather small. Therefore, it is important we receive as high a response rate as possible. We appreciate your participation and **will make sure you will receive a copy of the paper we are currently working on,** as soon as possible. (A first draft should be available in October.) Please note the attached self-addressed envelope. **It will be very helpful if you return the questionnaire by ...** . Your answers will be treated confidentially. We appreciate you taking the time to fill out this questionnaire. **This**

research is being funded by the Alfred P. Sloan Foundation through a grant to the Curry School of Education at the University of Virginia.

When rating the reasons listed below, please use a 5-year perspective.

If you believe a reason does not apply, rate it as “unimportant”.

Part Ia: Why one may want to invest in publicly-traded post-secondary education companies.

[All correspondents were asked to rate each argument on the following scale:

unimportant 1 2 3 4 5 most important]

[First set of arguments: The economics of (post-secondary) education.]

The shift to a knowledge-based and technology-driven economy generates significant income premia for those having the pertinent skills.

<“*income premium*”> <Data: 3,3,4,4,4,5,5,5; mean: 4.1; med: 4>***

The shift to a knowledge-based and technology-driven economy drives the increased demand for career-oriented education on the part of adults.

<“*career-oriented continued education*”> <Data: 3,4,4,4,4,5,5,5; mean: 4.3; med: 4>***

The shift to a knowledge-based and technology-driven economy drives the increased demand for career-oriented education on the part of students who are high school students.

<“*career-oriented education*”> <Data: 3,3,4,4,4,5,5; mean: 4.0; med: 4>***

An increasing need exists for education on the part of students who are high school students.

<“*more education*”> <Data: 2,2,3,3,3,4,4,4; mean: 3.1; med: 3>**

An increased need exists for IT-related skills internationally.

<“*international demand*”> <Data: 2,2,3,3,4,4,4,5; mean: 3.4; med: 3>**

Revenues (and expenses) and therefore earnings are very predictable (“earnings visibility”).

<“*earnings visibility*”> <Data: 3,3,4,4,4,4,4,5; mean: 3.9; med: 4>***

Substantial government funding is, and will be, a steady source of significant revenue.

<“*government funding*”> <Data: 2,2,3,3,3,4,4,4; mean: 3.1; med: 3>**

The post-secondary education industry is recession-proof, if not counter-cyclical.

<“a/countercyclicality”> <Data: 3,3,3,4,4,4,5,5; mean: 3.9; med: 4>***

[Second set of arguments: Why one might want to invest in publicly-traded post-secondary education companies.]

Revenue and earnings growth is high and likely to remain high for the foreseeable future.

<“high growth”> <Data: 3,3,4,4,5,5,5,5; mean: 4.3; med: 4.5>***

The majority of the companies listed in the first paragraph of the introductory remarks produce high returns on invested capital and are likely to do so for the foreseeable future.

<“high returns”> <Data: 2,3,3,4,4,4,5,5; mean: 3.8; med: 4>***

For-profits focus on their customers’ satisfaction instead of other priorities.

<“focus”> <Data: 2,2,3,3,4,4,4,5; mean: 3.4; med: 3.5>**

For-profits offer their courses in a flexible manner (e.g., at convenient times and locations.)

<“flexibility”> <Data: 2,3,3,3,4,4,4,4; mean: 3.4; med: 3.5>**

For-profits pay particular attention to retention, graduation, placement, and referral rates.

<“attention”> <Data: 2,2,3,4,4,4,4,5; mean: 3.5; med: 4>***

Publicly traded education companies operate under a “pricing umbrella” spanned by inefficiently run public and private non-profits.

<“pricing umbrella”> <Data: 2,2,3,3,4,4,4,4; mean: 3.3; med: 3.5>**

The typical for-profit business model produces significant economies of scale in marketing, regulatory compliance, and other functions that can be centralized.

<“economies”> <Data: 3,3,3,3,3,3,4,4; mean: 3.3; med: 3>**

Publicly traded education companies who manage to navigate the regulatory environment successfully, can rely on regulations as effective barriers to entry.

<“barriers to entry”> <Data: 2,3,3,3,4,4,5,5; mean: 3.6; med: 3.5>***

Working adults represent the primary market for distance education programs.

<“primary market”> <Data: 1,2,2,2,3,4,4,4; mean: 2.8; med: 2.5>**

Distance education allows publicly traded education companies to make end-runs around state education boards and accrediting agencies.

<“end-runs”> <Data: 1,1,1,2,2,2,3,3; mean: 1.9; med: 2>*

Competition through new entrants is likely to be higher in the training segment of the industry.

<“competition”> <Data: 2,3,3,3,3,3,3,5; mean: 3.1; med: 3>**

A limited number of investable companies exist.

<“limited number”> <Data: 1,2,3,3,3,4,4,4; mean: 3.0; med: 3>**

Part Ib: Why one may not want to invest in these firms.

[Third set of arguments: Why one might not want to invest in publicly-traded post-secondary education companies.]

Direct and indirect subsidies to private and public non-profits put for-profits at a competitive disadvantage.

<“subsidies”> <Data: 1,1,2,2,2,2,3,4; mean: 2.1; med: 2>*

Enforcement of regulations is not as strict for non-profits, putting for-profits at a competitive disadvantage.

<“stricter enforcement”> <Data: 1,1,2,2,2,2,3,3; mean: 2.0; med: 2>*

State education boards and accrediting agencies are typically populated by non-profit school officials and faculty who take a skeptical view of for-profit educational companies.

<“skeptical view”> <Data: 2,2,2,3,3,3,4,4; mean: 2.9; med: 3>**

The short operating histories of many degree-granting and publicly traded post-secondary education providers makes the quality of their management difficult to assess.

<“short operating histories”> <Data: 1,2,2,3,3,3,4,4; mean: 2.8; med: 3>**

Many for-profits have family or insider management, as well as dominant control by insiders.

<“insider management and control”> <Data: 2,2,2,2,2,3,3,4; mean: 2.5; med: 2>*

Most currently practiced business models involve the extensive use of contracts. Thus there is

significant contractual risk.

<“contractual risk”>

<Data: 1,1,2,2,2,2,3,4; mean: 2.1; med: 2>*

Is there any reason you feel should be listed but isn't?

[This was a control question to check whether the content analysis of the inventory of argument had overlooked other important facets of the emergence of publicly traded for-profits. The answers didn't suggest so.]

Part II: If you had \$ 100, 000 to invest ...

*We would appreciate it if you would respond to the following two questions.
As mentioned above, your answers will remain confidential.*

If you had \$100,000 to invest, how would you allocate it among the degree-granting and publicly traded post-secondary education companies listed on the first page of this questionnaire?

(Please be as specific as possible. Tell us "I would allocate 1/12 of the total to each stock", or "I would invest in a weighted basket", or "I would put 50 % in stock X and 50 % in stock Y.")

If you had \$100,000 to invest, how would you allocate it among stocks across the education industry. (Please assume there are composite stocks for the following categories: pre-kindergarten/child care, K - 12, post-secondary as defined by the companies enumerated in the first paragraph of the introductory remarks, education products. Again, please be as specific as possible.)

Thank for your having taken the time!

We will send a copy of our report to everyone who has filled out the questionnaire.

----- [your name]