VALUE ADDED™
COLE & PARTNERS
Volume 9, No. 2, October 2003

What's it Worth Today?

By Alan Lee and Andrew Harington

Recently published findings of private equity returns and a survey of 2002 transactions provide a valuable set of data points for M&A transactions, litigators and others interested in private equity value. The 2002 International Association of Merger and Acquisition Professions ("IMAP") Transaction Survey and recent data from Thomson Venture Economics show a moderate decline in EBIT multiples over the four years ending 2002. The returns reflect the nature of private equity.

The Venture Economic data also provides anecdotal confirmation of the following:

- successful investing in private equity requires a long term perspective;
- later stage and larger transactions provided returns less than 17%;
- venture investments provided a return in the range of 17%;
- early stage investments provided a return in the range of 21% with a great deal of volatility in the range return;
- small buyouts, which were likely successful small entrepreneurial companies, provided the highest return of all in the range of 25%.

Keep in mind when assessing the above returns that they are not hurdle rates. They reflect the amalgam of portfolio returns. In most cases there would have been many more losers than winners and the return on the winners would have had to have been very high to bring the average returns to these levels.

Results from the IMAP 2002 Transaction Survey were published in the April 2003 issue of *M&A Today*. This survey of valuations based on EBIT multiples is of particular relevance due to the background of its respondents. The 217 transactions reported worldwide in 2002 had a corresponding value of US$4.4 billion and was based almost entirely on sales on private companies. The total value of the transactions of US$4.4 billion was record-breaking, while the number of reported transactions was second only to 1998.

The IMAP Transaction Survey results summarized in Figure 1 also likely reflect purchasers' lowered expectations in achieving post-acquisition synergies:

Figure 1: 1998 and 2002 Multiples of EBIT

All North American Manufacturing Companies by Product or Type	Number of Transactions 1998	Number of Transactions 2002	Median Multiple 1998	Median Multiple 2002
Non-proprietary manufacturing (A)	50	35	5.0	4.7
Proprietary consumer manufacturing	19	15	6.0	5.6
Proprietary industrial manufacturing	54	8	5.9	5.3
Distribution	23	20	5.4	4.8
Other	27	39		
	173	117		

(A) Contract manufacturers (e.g. stampers, moulders, production fabricators).

Source: 2002 IMAP Transaction Survey

These returns reinforce the expected risks and returns under conventional investment paradigms. There should be no surprises here: abnormal returns, whether abnormally positive or negative, do not exist in the long-run; higher risk investments (like early stage venture capital and smaller transactions) will yield higher returns on average, while lower risk investments (like mezzanine financing) will yield lower returns on average.

Figure 2 demonstrates the relationship between risk and return in a down market and the long time horizon of private equity investments.

Figure 2: Annualized Investment Horizon IRRs

Fund Type	1 Year	3 Years	5 Years	10 Years	20 Years
Early/Seed Venture Capital	-27.6	-4.7	51.4	34.9	20.4
Balanced Venture Capital	-22.7	-7.9	21.0	21.0	14.3
Later Stage Venture Capital	-15.7	-8.5	10.6	21.6	15.3
All Venture Capital	-23.3	-6.8	28.3	26.2	16.6
All Buyouts	-5.3	-5.8	1.0	8.7	12.4
Mezzanine	-1.7	1.2	6.3	9.8	10.3
All Private Equity	-11.0	-5.4	7.8	14.8	14.3
S&P 500	-22.1	-14.6	-0.6	9.3	12.7

Sources: Thomson Venture Economics Data as of 12/31/02; Standard & Poor's

Figure 3 further details the volatility in returns within each stage of investment, as measured by standard deviation in the far right column. Higher risk investments like early stage funds and small buyout funds (under $250 million) posted the highest pooled IRRs but also the widest dispersion of data. This not only reinforces the longer investment horizon of early stage funds and the higher prices for the winners, but it also highlights the importance of having strong manager selection skills:

Figure 3: Returns to U.S. Private Equity Funds (Since Inception) Risk vs. Return

Stage Focus	Number	Pooled IRR	Std Deviation
Seed	63	12.2	38.3
Early stage	433	21.4	68.4
Balanced	410	14.5	29.3
Later stage	131	16.5	30.4
Venture	1081	16.7	49.4
Buyouts 0-$250M	168	25.3	54.6
Buyouts $250-$500M	99	17.0	26.3
Buyouts $500M-$1B	75	13.6	26.5
Buyouts $1B+	93	6.9	24.1
All Buyouts	435	12.2	40.9
Mezzanine	57	10.3	13.6
Private Equity	1625	14.4	46.8

Source: Thomson Venture Economics Data as of 12/31/02

In the end, the above demonstrate that traditional investment standards still apply and timing is still a mug's game.

Springboard and Early Mover Advantage in Valuations and Damage Calculations

Andrew Harington

The benefits of accelerated entry into a market create earlier and greater profitability and value. This article focuses on the advantages of being the "early mover" and the often related "Springboard Effect". When building business plans and valuation models, it is important to rightly reflect these considerations.

Similarly, where these benefits have been unjustly appropriated or removed by an infringing party, the loss of value is compensable when calculating damages.

WHAT ARE THE BENEFITS OF BEING THE EARLY MOVER?

The early mover advantage provides the following benefits over and above those that may otherwise have been the case:

- larger market share;
- greater brand loyalty;
- stronger platform for sale of follow-on products including annual upgrades and next generation product; and
- stronger platform for sale of complementary products, often known as "convoyed sales"[1].

"...EARLY ADOPTERS CAN BECOME THE MARKET STANDARD AND MARKET LEADER..."

For example:

- in the pharmaceutical industry, product which quickly captures market share can become the 'product of choice' for prescription writers over the long term. A similar principle exists for non-prescription drugs that become the product of choice for consumers; and
- amongst computer users, software which captures the early adopters can become the market standard and market leader despite the subsequent introduction of competing, and even superior software. While maintaining the position of market leader requires continuous investment in improved and updated products, the benefits include superior profit margins and often relegating potential competing products to only niche markets. For example, the majority of Microsoft® users inevitably upgrade to the next version of Microsoft® software. This is at the heart of a recurring revenue stream. Rarely does a Microsoft® user switch to an Apple® product.

WHAT IS THE SPRINGBOARD EFFECT?

The principle of Springboard was described in *Terrapin*[2] as the principle whereby "a person who has obtained information in confidence is not allowed to use it as a spring-board for activities detrimental to the person who made the confidential communication." Put another way, a defendant has obtained a Springboard benefit where its unauthorized use of the intellectual property of the plaintiff has allowed it to come to market:

- earlier than they otherwise would have. That is to say, development time and cost can be dramatically reduced and market share can be acquired more quickly than it otherwise could have been acquired; and
- with a product or service superior to that which they otherwise would have had.

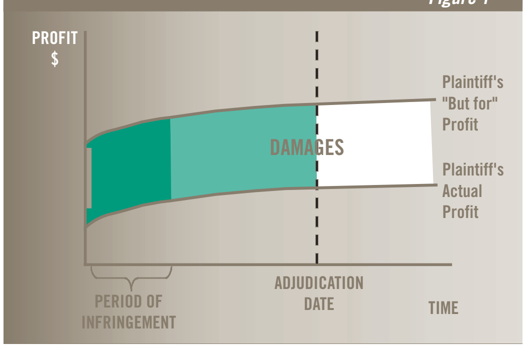
The offending parties may include competitors, contract suppliers who have been provided with the 'blueprints' of the product[3] or employees who had access to confidential business processes, customer lists, or other proprietary information[4]. While the Springboard principles have been applied where information was *provided* in confidence, the principles apply equally were the information was obtained by other means.

The unlawful benefit of a Springboard provides the ability to erode or "eat into" the value of the early mover advantage that would otherwise be enjoyed by the incumbent.

QUANTIFICATION OF DAMAGES

The objective in the quantification of damages is to determine the amount that would put the plaintiff in the same financial position that it would have been in, absent wrong-doing by the defendant. It is the differential between the earnings of the business of the plaintiff on a "but-for the infringement" basis and the actual earnings of the business. This can be graphically depicted as follows[5]:

Figure 1



Where the period of damages extends beyond the period of the infringement, the calculation of damages is best determined and presented from two perspectives:

- the components of damages suffered by the plaintiff
- the period over which the damages are suffered

Components of Damages

A summary analysis of the nature of the damages suffered by the plaintiff provides meaningful information as to the different components of the claim and allows for analysis of each component individually. It can be presented in the following format:

---

1 For example, copier purchasers typically go on to regularly buy toner over the life of the copier; having bought the razor, it is necessary to regularly buy new blades.

2 Terrapin Ltd. v Builders' Supply Co (Hayes) Ltd (1967)

3 FBI Foods Ltd., et al v. Cadbury Schweppes Inc., et al (B.C.)(25778) provides a good example

4 See Matrox Electronic Systems Ltd. v. Jean-Étienne Gaudreau et al. and Bleumont Inc. [1993] R.J.Q. 2449. Also, while the case was settled out of court, General Motors v. Volkswagen provides a well publicized example.

5 For demonstration purposes, the period of infringement is indicated as being a limited period. For example, the Court may find that a "design-around" could have been accomplished within one year and therefore the "head-start" obtained by the defendant, which represents the period of infringement, is only for that period. In some cases, however, the period of infringement could continue until the adjudication date, such as a breach of patent rights, at which time the Court would presumably terminate the infringing operations. The principles reflected in this article apply to both situations.

Figure 2

the sum of:

- lost profits on sales that would have been captured by the plaintiff;
- lost profits in actual sales from price competition from the infringer;
- lost profits from higher production costs;
- lost profits from lost convoyed sales; and
- lost goodwill

less:

- profits from actions taken by the plaintiff to mitigate the above losses

The above components of damages can be determined giving consideration to a number of factors including:

- the age and size of the market for the product;
- the presence of competing products in the marketplace;
- the advantages of the plaintiff's products over competing products;
- the advantages of the defendant's infringing product over the plaintiff's product;
- the market position and market share of the plaintiff; and
- the financial ability of the plaintiff to respond to increased price competition[6].

Assessment of damages becomes more complex and subjective when the market for the product is new and unproven. In such situations, the following aspects require special attention and often the input from third party marketing and industry specialists:

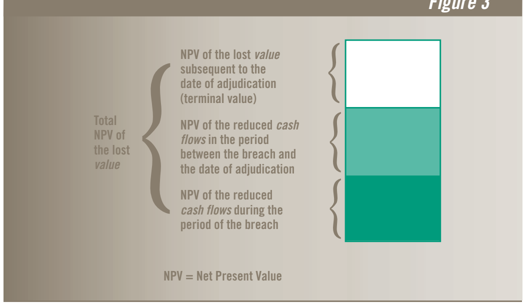
- overall market size;
- market share as between the plaintiff, defendant and other market participants;
- time frame over which customers will adopt the new product and the rate of adoption;
- impact on market size as a consequence of the infringement;
- projected sales, pricing and costs;
- impact on sales, pricing and costs as a result of the infringement; and
- impact on all of the above as a result of bona fide competition over the relevant time.

While absolute certainty is not attainable in the "but for" world, and indeed is not required by the courts, the assumptions should make common sense and be as supportable as the unique circumstances allow. It is essential to understand both the detail of the matter at hand and the "bigger picture" industry and contextual patterns and perspectives.

Period of Damages

Where damages are suffered not only during the period of infringement but for some time thereafter, the loss or damage components suffered by the plaintiff can be demonstrated graphically as follows[7] (note that the shading corresponds to the shading in *Figure 1*):

Figure 3



The net present value ("NPV") of the lost cash flows attributable to the breach but subsequent to the date of adjudication, the yellow portion, are highly relevant and are rightly included. They are based on forecast or projected information. Such damages may be referred to as the terminal value.

There are a variety of methods of determining the terminal value. The most reliable is the discounted cash flow method ("DCF"). Shortcut market-based proxies are often used in the alternative. For example, as at the date of determination, looking forward, a market-based multiple of sales or a market-based multiple of cash flow may provide a helpful "ballpark" estimate.

Assuming the date at which damages are being quantified is sometime after the initial infringement, hindsight[8] will be directly relevant in the determination of the green components (as reflected in *Figures 1 and 3*) and will provide a stronger than otherwise possible platform for the determination of the terminal amount.

One should reconcile the aggregate damages determined under *Figure 2* with the damages determined under *Figure 3*, not only so as to better explain the damages but also to ensure the requisite "sanity" checks have been made.

DAMAGES CAN INCLUDE LOSS OF GOODWILL

Depending on the facts of each case, it may be appropriate to include lost goodwill in the damages determined in *Figures 2 and 3*. This loss of goodwill refers to the inability of the plaintiff to use the platform of the larger, more successful business that it would have had but for the breach to embark on further business ventures, which may not even be identified at the time the valuator prepares the damage report.

This loss of opportunity is most often captured in the terminal value, but can be recognized earlier. It is not incremental to the methods advocated in *Figures 2 and 3* – it is simply embedded within them. Care needs to be taken not to include specific recognized components of damages in goodwill[9].

AN ALTERNATE STARTING POINT FOR DAMAGE QUANTIFICATION

Often, due to the subjective nature of assessing Springboard damages or because of a lack of information, the business valuator will be forced into using the profit enjoyed by the defendant as a starting point or rough proxy for quantification of the damages suffered by the plaintiff – particularly for earlier stage plaintiffs than have little operating history or no history of profits. Note that we recommend this be a "starting point" as opposed to a comprehensive measure for the plaintiff's damages. In effect, this starting point requires the same calculation as an accounting of profits.

The advantage which would have been enjoyed by the plaintiff may be much greater than that enjoyed by the defendant. A holistic assessment of both parties' business base is necessary to make such determinations.

"...MORE COMPLEX AND SUBJECTIVE WHEN THE MARKET FOR THE PRODUCT IS NEW AND UNPROVEN..."

6 See AlliedSignal v. Du Pont Canada Ltd.

7 It should be noted that an award of damages in respect of lost profits is generally made on a pre-tax basis and is taxable to the plaintiff and deductible to the defendant while an award of lost value would be capital in nature and neither taxable to the plaintiff nor deductible to the defendant. For the purpose of simplification, taxes have been ignored.

8 Damages are determined with the benefit of hindsight. Valuators and other interested parties should not be confused by the definition of fair market value which is generally determined without the benefit of hindsight.

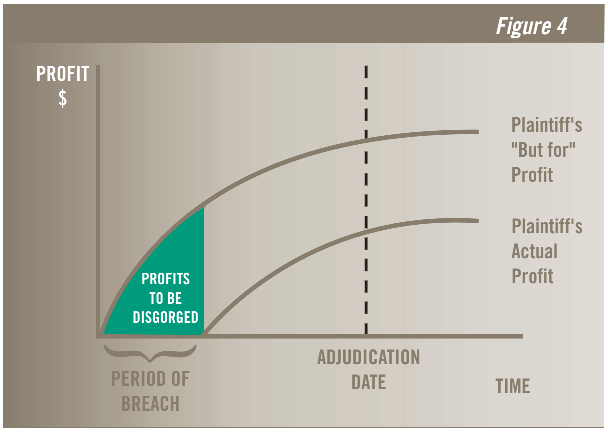
9 It is beyond the scope of this article to discuss weather there are occasions when a disgorging of profits would also capture any residual goodwill benefit left with the defendant.

It should be noted that if the plaintiff has suffered a loss of goodwill then a disgorging of the defendant's profits may not achieve the objective of making the plaintiff financially whole [10].

ACCOUNTING OF PROFITS

While a calculation of damages is performed from the plaintiff's perspective, a review of the operations of the defendant will provide insight into the plaintiff's damages as well as profits that would be disgorged under an award of an accounting of profits.

The results may be demonstrated graphically as follows:



While the Springboard benefit may or may not be of an enduring nature, where the plaintiff can demonstrate that the period of damages extends beyond the period of the infringement a disgorgement of profits during the period of the infringement is not likely to adequately compensate the plaintiff for the damages suffered.

Assessing the difference between that which was lost by the plaintiff and that which was enjoyed by the defendant is, of course, also necessary when given a choice between an accounting of profits and the damages remedied.

In deciding whether to claim an accounting of the defendant's profits as opposed to damages, various points should be considered, including [11]:

- a damages claim may result in confidential pricing information of the plaintiff becoming public; and
- the degree to which the damages suffered includes an amount in respect of lost value beyond the period of the breach which will not be reflected in an accounting of profits.

10 See footnote 9.

11 For further discussion on this topic see Intellectual Property Disputes – Resolutions & Remedies, Carswell, 2002

CONCLUSION

Most often, where there is the opportunity for Springboard or early adopter advantage, there will be the opportunity for the development of a strong recurring revenue model. Speed to market and having a superior product will provide powerful competitive advantages translating into incremental and lasting value and goodwill.

Whether determining an accounting of profits or damages, discounted cash flow techniques are the most appropriate summary methodologies. The damage quantification period should reflect both losses during the period of infringement and subsequently. The aggregate net present value determined should be parsed to identify the different contributors to lost profit – in essence, reconciliation between a top-down approach and bottoms-up approach.

NEW STAFF

We are pleased to announce that **Bill Dovey** has joined the firm as a partner!

Bill is both a Chartered Accountant and Chartered Business Valuator and practices in the areas of damages quantification, commercial and shareholder disputes and business valuations. Bill will bring extensive intellectual property valuation and litigation support experience. Prior to joining our firm, Bill was a partner with an international firm of Chartered Accountants. He was recently recognized in the Lexpert survey as one of the top litigation support specialists in Canada and was the founding chairman of the Alliance for Excellence in Investigative and Forensic Accounting.

Alan Lee
Alan is a chartered accountant with financial and business consulting experience to private and public companies and comes from a national accounting firm. He has three years of experience in finance due diligence, business restructuring and process re-engineering.

WRITING ABOUT...

Sharing Synergies by Suzanne Loomer and Andrew Harington, published in *CA Magazine*, May 2003 issue.

Please visit our website at **www.coleandpartners.com** if you are interested in reading other newsletter issues that we have written.

If you do not receive *Value Added* on a regular basis and would like to receive future issues, please send us your business card at the fax number or address below:

Cole & Partners
80 Richmond Street West, Suite 2000
Toronto, Ontario M5H 2A4

Tel (416) 364-9700
Fax (416) 364-9707

E-mail: info@coleandpartners.com
www.coleandpartners.com

In addition to using our main telephone number, you may call the following people directly:

Stephen Cole	416-364-9701
Andrew Freedman	416-364-9704
William Dovey	416-364-9756
Scott Davidson	416-364-9719
Paula White	416-364-9715
Sue Loomer	416-364-9710
Robert Kanee	416-364-9718
Andrew Harington	416-364-9790
Ohran Gobrin	416-361-2572
Alan Lee	416-361-2571