

# EXHIBIT A

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*Attorneys for Plaintiff, The SCO Group, Inc.*

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF UTAH**

THE SCO GROUP, INC.,  
a Delaware corporation,

Plaintiff/Counterclaim-Defendant,

vs.

NOVELL, INC.,  
a Delaware corporation,

Defendant/Counterclaim-Plaintiff.

**REPORT AND DECLARATION OF  
CHRISTINE A. BOTOSAN**

**Civil No.: 2:04CV00139**

Judge Dale A. Kimball  
Magistrate Brooke C. Wells

SCO v. Novell

Case No. 2:04CV00139

Expert Witness Report

Christine A. Botosan, CA, Ph.D.

George S. Eccles Professor of Accounting

University of Utah

May 23, 2007

## I. Assignment

1. I have been asked to calculate damages to SCO resulting from Novell's slander of title, unfair competition and breach of contract.<sup>1</sup> I have been instructed that the proper measurement of these damages is SCO's lost profits due to Novell's public claims that SCO does not own the copyrights to the UNIX source code associated with the UNIX and UnixWare businesses.

2. In undertaking my analysis, I rely on certain opinions rendered by Professor Gary Pisano of Harvard University. Other pertinent documents I have considered in forming my opinions are listed in Exhibit 1. I have prepared this report solely in connection with the litigation referenced herein, and it is intended for no other purpose.

3. I conclude that SCO's lost profits are, at their lowest bound, **\$136.965 million**, but could be as high as **\$215.657 million**. The lower bound is based on my analysis of lost profits and includes simple interest computed at 10%. The upper bound is based on Dr. Pisano's analysis of the potential market for SCOsource right-to-use licenses.<sup>2</sup>

## II. Qualifications

4. I am a Professor of Accounting at the University of Utah. I have a Ph.D. in Business Administration (specializing in financial accounting) from the University of Michigan. My areas of specialty are financial statement analysis and corporate reporting

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<sup>1</sup> I understand that unjust enrichment is also a proper remedy for unfair competition. I have been instructed that discovery pertaining to Novell's revenues from the sale of competing products will be forthcoming. I may supplement my report after I receive such discovery. I understand that certain other SCO claims have been temporarily stayed and SCO has reserved the right to submit additional damage analyses on those claims when appropriate.

<sup>2</sup> The upper bound estimate based on Dr. Pisano's analysis does not include an adjustment for interest because Dr. Pisano does not allocate the lost sales over time, but simply concludes that they would have been realized by the end of the damages period.

strategy. I have over twenty years teaching experience and regularly teach financial accounting and financial statement analysis courses at the undergraduate and graduate levels. These courses often involve the calculation and analysis of profits. In addition, I have calculated lost profits in several cases in which I have served as an expert witness. Prior to embarking on an academic career, I served as an auditor in public accounting. I am a Chartered Accountant in good standing with the Canadian Institute of Chartered Accountants. My research on corporate reporting strategy has received several prestigious awards from the American Accounting Association and is published in peer reviewed and practitioner oriented journals. At present, I serve on the editorial boards of three academic journals. A copy of my Curriculum Vitae is provided in Exhibit 15. My billing rate is \$450 per hour.

### III. Case Background

5. As I understand it, the salient facts of this case are as follows. On September 19, 1995, Novell, Inc. and Santa Cruz Operation, Inc. entered into an Asset Purchase Agreement (APA).<sup>3</sup> On October 16, 1996, the parties executed Amendment No. 2 to the APA. Amendment No. 2 provides that SCO acquired, all “copyrights and trademarks owned by Novell as of the date of the [APA] required for SCO to exercise its rights with respect to the acquisition of UNIX and UnixWare technologies.”<sup>4</sup> I have been instructed that the APA and Bill of Sale transferred the entire UNIX and UnixWare business to SCO, including the copyrights, consistent with the intent of the parties to the transactions, and Amendment No. 2 confirmed that the transfer had, in fact, occurred.

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<sup>3</sup> On December 6, 1995, the parties executed a Technology License Agreement (TLA) as well.

<sup>4</sup> Amendment No. 2 at ¶A.

6. On or about May 4, 2001, Santa Cruz Operation, Inc. sold its Server Software and Professional Services Divisions to Caldera International, Inc. I have been instructed that through this acquisition, Caldera International, Inc., which ultimately changed its name to The SCO Group Inc. (“SCO”), acquired all rights to the UNIX and UnixWare business that Santa Cruz acquired from Novell, including the copyrights.

7. In mid to late 2002, SCO commenced a review of its intellectual property rights. SCO first concluded that its proprietary UNIX libraries were being used improperly by customers to transition from UNIX to Linux. In 2003, SCO further determined that parts of its proprietary UNIX source code and derivative works had been included in the Linux operating system or used to enhance the Linux operating system without SCO’s authorization. SCO formally launched its SCOSource initiative in January 2003 to establish and protect SCO’s intellectual property rights related to its UNIX source code. The initiative included offering SCOSource intellectual property licenses. SCO also retained David Boies and the law firm of Boies, Schiller and Flexner for “research and protection of SCO’s patents, copyrights, and other intellectual property.”<sup>5</sup> In addition, SCO commenced negotiations with Sun and Microsoft for more expansive licenses.

8. The SCOSource division’s initial sales efforts met with great success. On February 25, 2003 SCO signed a vendor license agreement with Sun, which generated in excess of \$9 million of SCOSource vendor license revenues.<sup>6</sup> Subsequently, on April 29, SCO signed a vendor license agreement with Microsoft, which through a series of

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<sup>5</sup> SCO Establishes SCOSource to License UNIX Intellectual Property; PR Newswire. New York: Jan. 22, 2003. pg. 1.

<sup>6</sup> In its 2003 10-K SCO refers to its agreements with Sun and Microsoft as “vendor license agreements.” (2003 10-K, pg. 4). Consistent with SCO’s terminology I refer to these and similar license agreements as “vendor license agreements,” and I refer to the revenue generated by such agreements as “SCOSource vendor license revenue.”

amendments and licenses, generated in excess of \$16 million of SCOsource vendor license revenues. Together, these two contracts generated more than \$25 million of SCOsource vendor license revenues during SCO's 2003 fiscal year.<sup>7</sup>

9. On May 12, 2003, SCO sent a mailing to 1500 of the world's largest corporations indicating that "Linux infringes on our UNIX intellectual property and other rights," and that end users, as well as developers, could be held legally liable for that infringement.<sup>8</sup>

10. On May 28, 2003, Novell asserted ownership over SCO's UNIX and UnixWare copyrights. Novell issued a press release that stated in part:

"Importantly, and contrary to SCO's assertions, SCO is not the owner of the UNIX copyrights. Not only would a quick check of U.S. Copyright Office records reveal this fact, but a review of the asset transfer agreement between Novell and SCO confirms it. To Novell's knowledge, the 1995 agreement governing SCO's purchase of UNIX from Novell does not convey to SCO the associated copyrights. We believe it unlikely that SCO can demonstrate that it has any ownership interest whatsoever in those copyrights."<sup>9</sup>

11. On June 5, 2003, SCO announced the discovery of Amendment No. 2 and Novell issued a statement that although it did not have a copy of the amendment in its files the language seemed to support SCO's claim of copyright ownership.<sup>10</sup> Then on June 6, 2003, Novell asserted in a press release that it had just received a copy of Amendment No. 2 the night before from SCO and revised its May 28th claim, stating, "[t]he amendment

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<sup>7</sup> Even though the Sun and Microsoft agreements provided vendors with expanded UnixWare licensing rights, all of the revenue derived from these agreements was classified as SCOsource revenues by SCO in its audited annual reports to shareholders, and by the external analysts providing forecasts of SCOsource revenues. This decision reflects the shared perspective that these were primarily SCOsource licensing agreements. Moreover, the expanded UnixWare licensing rights conveyed by these contracts were equally impacted by the uncertainty over copyright ownership induced by Novell's claims. The fact that SCO successfully negotiated two such deals before Novell's claims and none thereafter provides evidence in support of this.

<sup>8</sup> SC00024112-13.

<sup>9</sup> May 28, 2003 letter from Jack Messman to Darl McBride (disclosed in Novell press release the same day). SC00024115-17.

<sup>10</sup> SCO Says Clause Bolsters Linux Claim, cnet News.com, June 5, 2003.

appears to support SCO's claim that ownership of certain copyrights for UNIX did transfer to SCO in 1996.”<sup>11</sup>

12. Nevertheless, after June 6, 2003, Novell continued to assert ownership of the UNIX copyrights. On June 26, 2003, Novell sent a letter to SCO stating that it now interpreted Amendment No. 2 as ambiguous. “Upon closer scrutiny, however, Amendment No. 2 raises as many questions about copyright transfer as it answers. Indeed, what is most certainly *not* the case is that ‘any question of whether UNIX copyrights were transferred to SCO as part of the Asset Purchase Agreement was clarified in Amendment No. 2’ (as SCO stated in its June 6 press release).”<sup>12</sup>

13. On August 4, 2003, Novell stated in a letter to SCO, “We dispute SCO’s claim to ownership of these copyrights. ... Unless and until SCO is able to establish that some particular copyright right is ‘required’ for SCO to exercise its right under the APA, SCO’s claim to ownership of any copyrights in UNIX technologies must be rejected, and ownership of such rights instead remains with Novell.”<sup>13</sup>

14. On August 5, 2003, the SCOSource Division announced “the availability of the SCO Intellectual Property License for Linux”, permitting “the use of SCO’s intellectual property, in binary form only, as contained in Linux distributions.”<sup>14</sup> The license applies to all commercial users of Linux, but SCO’s initial sales efforts focused on Fortune 1000 and Global 200 end users who use Linux version 2.4 and higher in binary form for commercial purposes.<sup>15</sup> In its 2003 10-K SCO refers to these end user agreements as “SCOSource IP

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<sup>11</sup> Novell Press Release, June 6, 2003. SCON0024123.

<sup>12</sup> June 26, 2003 letter from Joseph LaSala, Jr. to Darl McBride. (Emphasis in original). SCON0024148.

<sup>13</sup> Aug. 4, 2003 letter from Joseph LaSala, Jr. to Darl McBride. SCON0024152.

<sup>14</sup> August 5, 2003 SCO Press Release. SCON0055211.

<sup>15</sup> SCO1769404.



licenses.”<sup>16</sup> I refer to these and similar license agreements as “SCOsource RTU licenses” and I refer to the revenue generated by such licenses as “SCOsource RTU license revenue.”

15. From September 22, 2003 through October 14, 2003, Novell submitted twelve certifications with the United States Copyright Office, publicly claiming to be the owner of the UNIX copyrights.<sup>17</sup> Novell publicized its copyright registrations and continued its assertion of copyright ownership in a press release on December 22, 2003.<sup>18</sup> Simultaneously with its December 22 press release, Novell publicly disclosed correspondence between Novell and SCO regarding the copyright ownership as evidence that “SCO has been well aware that Novell continues to assert ownership of the UNIX copyrights.”<sup>19</sup>

16. Novell’s copyright registrations were widely publicized on December 23, 2003, including in a New York Times article which stated, “Novell executives confirmed that the company filed for copyright registrations this fall, but declined to provide details.”<sup>20</sup> Novell also made additional public statements asserting its ownership rights. According to the same New York Times article, “‘Novell believes it owns the copyrights in UNIX, and has applied for and received copyright registrations pertaining to UNIX consistent with that position,’ Novell said in a statement.”<sup>21</sup>

17. On January 20, 2004, SCO filed this suit against Novell. After this date, Novell continued to make public statements that SCO did not own the UNIX copyrights. For example, on March 16, 2004, in the keynote speech at the Open Source Business Conference, Novell’s Chris Stone addressed SCO’s ownership claims, saying, “Sorry, Darl.

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<sup>16</sup> SCO 2003 10-K, pg. 4.

<sup>17</sup> See NOV000043025-43049. (Novell’s copyright applications).

<sup>18</sup> December 22, 2003 Novell Press Release – [http://www.novell.com/news/press/novell\\_statement\\_on\\_unix\\_copyright\\_registrations](http://www.novell.com/news/press/novell_statement_on_unix_copyright_registrations).

<sup>19</sup> Ibid.

<sup>20</sup> Novell Registers Disputed Copyrights on Unix; [Late Edition (East Coast)] *Laurie J. Flynn*. New York Times. New York, N.Y.: Dec 23, 2003. pg. C.5

<sup>21</sup> Ibid.

You didn't invent Linux. Or intellectual property law. We still own UNIX.”<sup>22</sup> Novell also still maintains a webpage entitled “Novell's Unique Legal Rights” that sets forth its correspondence with SCO and its claim of ownership of the UNIX copyrights.<sup>23</sup>

#### IV. Causation

18. Novell's actions described above were a substantial factor in undermining SCO's ability to sell its SCOsource products. Novell's assertions created confusion in the market and precluded SCO from reassuring partners and potential customers that its ownership of the copyrights was uncontested, resulting in lost SCOsource revenues. My review of the depositions of SCO personnel involved in the SCOsource program and with direct customer contact revealed that customers were deterred from purchasing SCOsource licenses by Novell's actions.<sup>24</sup>

19. In addition, in a letter dated May 21, 2004, Merrill Lynch representative Patrick Romain informed SCO that Merrill Lynch had decided to “delay the decision regarding whether to accept a license from SCO,” citing the “legal and factual uncertainty surrounding [SCO's] assertions regarding intellectual property ownership and infringement.”<sup>25</sup> Mr. Romain indicated that SCO's ownership rights were uncertain because Novell had publicly contested SCO's ownership of the UNIX intellectual property.

20. Moreover, although early customers included a \$20,000 deal with Computer Associates, SCO's RTU program did not meet with the customer acceptance that was projected. *See* Exhibit 2 for a schedule of SCOsource actual revenues.

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<sup>22</sup> Deposition Exhibit No. 1010, Feb. 6, 2006 Christopher Stone Deposition in SCO v. Novell.

<sup>23</sup> <http://www.novell.com/licensing/indemnity/legal.html>

<sup>24</sup> See e.g., April 30, 2007, Deposition of Chris Sontag in SCO v. Novell; April 24, 2007, Deposition of Ryan Tibbits in SCO v. Novell; March 20, 2007 Deposition of Hunsaker in SCO v. Novell; October 6, 2004, Deposition of Gasparro in SCO v. IBM; November 5, 2004, Deposition of Langer in SCO v. IBM; October 7, 2004, Deposition of Pettit in SCO v. IBM.

<sup>25</sup> SCON0114012-17.

21. In addition to my interviews and review of the deposition testimony and other documents, I conducted an independent event study to evaluate the market's reaction to Novell's May 28, 2003 open letter asserting ownership over SCO's UNIX and UnixWare copyrights. The event study shows a rapid and significant negative market reaction to Novell's statements.

22. Event studies are among the most popular applications of econometrics in finance and accounting research.<sup>26</sup> An event study examines the association between newly disclosed information about a company and its stock price movements.<sup>27</sup> Where the price movements are unexplained by factors affecting the market as a whole, and are statistically significant, a "causal connection" is established between the event considered and the price movements.<sup>28</sup>

23. In this case, the event study provides a connection between Novell's conduct and injury to SCO. Controlling for all other market-wide events that could have affected movements in SCO's stock price, the remaining measured impact demonstrates injury caused by Novell's statements.<sup>29</sup> If market participants had expected Novell's announcement to diminish SCO's expected future cash flows, firm value would have declined in response to Novell's statement. In fact, firm value did decline in response to Novell's statement, with a 24.64% negative abnormal return in a single day (*see* Appendix 1).

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<sup>26</sup> Materiality and Magnitude: Event Studies in the Court Room, Chapter 19, *Litigation Services Handbook*, The Role of the Financial Expert, Third Edition, John Wiley & Sons, Inc.

<sup>27</sup> *Rediscovering the Economics of Loss Causation*, 6 J.Bus. & Sec. L. 93, at 109.

<sup>28</sup> *Id.*; *see also Event Studies and the Law, Part II*, Yale Int'l Center for Finance Working Papers No. 260 at 17 (event studies can demonstrate the change in value due to fraud, and thus establish that the fraud had an impact); *How Broad are the Implications of the Supreme Court's Ruling on Loss Causation in Dura Pharmaceuticals?*, Friedman Kaplan Seiler & Adelman LLP Newsletter at 3 (plaintiffs in securities fraud actions increasingly are required to have an event study to demonstrate causation between the defendant's misrepresentation and the injury).

<sup>29</sup> "The actual effect of each false statement on a stock's price, as it fluctuated to incorporate new information within its efficient market, is often tested by an 'event study.' Such a study purports to isolate the impact of each false announcement on the stock's price, thereby possibly proving causation, materiality, and damages...." *Does the Efficient Market Theory Help Us Do Justice In a Time of Madness?* 54 Emory L.J. 843, 847 (2005).

24. The timing of Novell's announcement was particularly unfortunate for SCO, since it coincided with SCO's conference call to announce its second quarter earnings. Evidence I have reviewed suggests that Novell's decision to post its open letter on the same day as SCO's conference call was not an accident. In her deposition, Maureen O'Gara testified that Mr. Stone timed Novell's announcement to coincide with SCO's earnings announcement and that Mr. Stone's intent was to "upset" SCO's stock price.<sup>30</sup> This suggests that Novell anticipated a negative effect of its announcement on SCO's stock price.

25. But for Novell's announcement, SCO's stock price likely would have increased, given that SCO released positive quarterly earnings results, the first profitable quarter in the company's history, on that same day.<sup>31</sup> But, the impact of Novell's announcement overwhelmed any positive reaction that occurred in response to SCO's earnings news.

26. Causation is further supported by the market's reaction to SCO's June 5, 2003 announcement of its discovery of the 1996 Amendment to the APA. On that date SCO's stock experienced a positive abnormal return of 28.51% (*see* Appendix 1).

27. Both the May 28<sup>th</sup> and June 5<sup>th</sup> events were idiosyncratic to SCO; the market in general was unaffected by either of these events. Further, I was unable to find any other events or factors that would have been responsible for the significant stock movements on those days. This indicates a strong causal relationship between Novell's ownership claims and injury to SCO.

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<sup>30</sup> March 23, 2007 Deposition of Maureen O'Gara in SCO v. Novell at 11-12.

<sup>31</sup> SCO's financial performance during its second quarter 2003 represented the first time it achieved a positive net income in the company's history. On February 26, 2003, when SCO reported its first quarter 2003 operating results, the first time in the company's history when it achieved a positive EBITDA (earnings before depreciation, tax, and amortization), shares of SCO experienced positive returns of 35%.

## V. The Damages Period

28. SCO and its predecessor company Santa Cruz Operation, Inc. have participated in the market for UNIX software since 1995. SCO has an unbroken track record of business operations founded on its intellectual property rights since that date. SCO sells UNIX operating systems, software products, and support services.

29. The SCOsource initiative began in January 2003, as a response to infringement and misuse of SCO's intellectual property rights. Novell asserted ownership over SCO's UNIX and UnixWare copyrights beginning on May 28, 2003, and continuing over the ensuing four years. Accordingly, I calculate damages from May 28, 2003 until October 31, 2007, the end of SCO's fiscal year, which coincides with the expected conclusion of the trial. This period represents the period in which SCO's revenues were impaired as a consequence of Novell's conduct.

## VI. Opinions and Bases

30. Novell's statements were widely disseminated among users of Linux. Accordingly, numerous potential customers of SCOsource were negatively influenced. I estimate the impact of Novell's statements using SCO's financial records and internal projections, as well as external analyst projections. I estimate SCO's lost revenues at **\$209.190 million** and lost profits at **\$113.979 million** based on these documents. The details of my analysis are provided in the following paragraphs.

### A. Forecasts

31. Exhibit 3 shows the timing of earnings and product announcements, internal and external SCOsource forecasts, and other events pertinent to my lost profits analysis.

32. On January 22, 2003 SCO formally announced its SCOSource initiative.<sup>32</sup> Shortly thereafter, on February 25, 2003 SCO and Sun signed a vendor license agreement that generated \$10 million of SCOSource vendor license revenues. Based on this early success, an independent analyst at the Renaissance Research Group (RRG) revised a forecast related to SCO that he had issued earlier on February 24, 2003. In the earlier February forecast, the RRG analyst forecasted SCOSource vendor license revenues of \$2 million dollars per year, but in his revised forecast dated March 6, 2003, he increased his revenue forecast to \$10 million per year.<sup>33</sup> The analyst noted that during SCO's February 26, 2003 quarterly earnings conference call, management had announced \$10 million in revenue from its SCOSource licensing initiative.

33. In addition to forecasting arrearages settlement revenues of \$10 million in the second quarter of 2003, plus \$10 million, on average, for each of the next three years, the RRG analyst forecasted \$1 million of SCOSource "recurring" product revenue beginning in the third quarter of 2003, and increasing by 5% per quarter sequentially through fiscal year 2004. The analyst described his forecast of recurring product revenues as "conservative."<sup>34</sup>

34. While the RRG analyst clearly identified the arrearages settlement revenues as vendor license revenues, he did not specify whether the recurring product revenues also related to vendor license agreements or SCOSource RTU license agreements. Given that the forecast predates by 5 months the August 5, 2003 announcement of the availability of the SCOSource RTU license, I treat the RRG analyst's recurring revenues as distinct from the

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<sup>32</sup> SCO's first quarter ended soon after, on January 31, 2003. As a result, SCO booked no SCOSource revenue during the first quarter of its 2003 fiscal year.

<sup>33</sup> The analyst referred to these revenues as arrearages settlement revenues.

<sup>34</sup> RRG March 6, 2003, forecast, pg. 2.

SCOsourc RTU license revenues, which appear as a separate revenue stream in later forecasts. *See* Exhibit 4 for a summary of RRG's March 6, 2003 forecast.

35. On April 29, 2003, SCO and Microsoft entered into, among other things, a vendor license agreement, which ultimately generated in excess of \$16 million of SCOsourc vendor license revenues. The execution of this contract, which occurred subsequent to RRG's March 6, 2003 forecast, assured that SCO would exceed RRG's revenue and profit forecasts for 2003. RRG's 2003 forecast of SCOsourc licensing revenues of \$12.050 million fell far short of SCO's actual SCOsourc revenues of \$25.846 million for 2003. Moreover, SCO's second quarter profit of 33 cents per share significantly exceeded RRG's March 6, 2003 forecasted *loss* of 5 cents per share.

36. Just as the Sun agreement rendered RRG's February 24, 2003 forecast stale, the Microsoft agreement rendered RRG's March 6, 2003 forecast stale even before Novell's public claims of ownership over the UNIX copyrights. For this reason, I do not rely on the RRG forecasts except in the absence of a reasonable alternative.

37. A SCO-prepared forecast of SCOsourc vendor license revenues was included in a presentation entitled "Board of Directors Financial Overview – June 26, 2003."<sup>35</sup> *See* Exhibit 5 for a summary of the SCOsourc revenue forecast included in this presentation. It is important to note that this and all subsequent forecasts were prepared *after* Novell's May 28, 2003 open letter claiming that it still owned the UNIX copyrights, and would have been, to varying degrees, impacted by those statements already, as discussed further below. In addition, this forecast is limited to the revenues SCO expected to generate from SCOsourc vendor license agreements and did not include revenues from SCOsourc RTU licenses that were formally announced in August 2003.

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<sup>35</sup> SCO1786913-33.

38. On October 14, 2003, Deutsche Bank issued a forecast that includes SCOsource revenues. The Deutsche Bank forecast was made after the August 5, 2003 announcement by SCO that it would offer SCOsource RTU licenses. As a result, this forecast includes two streams of revenue – SCOsource RTU license revenue and SCOsource vendor license revenue. *See* Exhibit 6 for a summary of Deutsche Bank’s October 14, 2003 forecast.

39. SCO produced another internal forecast of SCOsource revenues on August 11, 2004. This document is entitled “FY 2004 – 2005 Operating Plan Budget SCOsource.”<sup>36</sup> *See* Exhibit 7 for a summary of SCO’s August 11, 2004 forecast. This forecast is made well after Novell’s disparaging statements and the resulting damage to the market for SCOsource was revealed. For this reason I do not rely on SCO’s August 11, 2004 forecast in computing lost revenues.

40. Although SCO’s June 26, 2003 forecast and the Deutsche Bank forecast were produced after Novell’s disparaging statements, both of these forecasts were made before the extent of the damage to the market for SCOsource was self-evident. The June 26, 2003 forecast was made after Novell had initially endorsed SCO’s interpretation of Amendment No. 2, and before Novell’s June 26 letter to SCO reasserting its ownership claim. The Deutsche Bank forecast was prepared before Novell’s registration of the UNIX copyrights was widely known. Accordingly, these forecasts are less affected by this alleged damage. Nevertheless, these forecasts were produced subsequent to Novell’s statements, and should be viewed as a conservative estimate of what the parties might have forecast in the absence of Novell’s claims.

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<sup>36</sup> SCO1750290.



## B. Computation of Lost Revenues

41. Using the forecasts described above I estimate expected SCOsource revenues absent Novell's claimed interference in the marketplace. My estimate includes expected revenues from (1) SCOsource vendor license agreements (initiated with the introduction of the SCOsource division in January 2003) and (2) SCOsource RTU license agreements (formally announced August 5, 2003). In my opinion, independent analysts' forecasts made at the relevant time generally provide the most objective assessment of the perceived revenue potential of SCOsource. In computing lost revenues, I rely on SCO internal forecasts only in the absence of a relevant independent analyst forecast.

42. Exhibit 8 provides my computation of lost revenues. My estimate of lost revenues for 2003 is \$1.404 million. This is based on expected revenues of \$27.250 million less actual revenues of \$25.846 million. I acquired expected SCOsource vendor licensing revenue of \$27.250 million from SCO's June 26, 2003 forecast.<sup>37</sup> SCO's forecast does not include a forecast of SCO's RTU license revenues because the program had not yet been officially launched. Since the program was introduced late in SCO's fiscal year, I include an estimate of \$0 for SCOsource RTU license revenue.<sup>38</sup>

43. My estimate of lost revenues for 2004 is \$52.171 million. I compute this figure by taking expected sales of \$53.000 million and deducting actual sales of \$0.829 million. My expected sales estimate is based on Deutsche Bank's October 14, 2003 forecast in which Deutsche Bank forecast \$23 million of SCOsource RTU license revenue and \$30 million of SCOsource vendor license revenue. I rely on Deutsche Bank's forecast of vendor

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<sup>37</sup> For the reasons discussed above I do not rely on RRG's March 6, 2003 forecast. In addition, Deutsche Bank's October 14, 2003 forecast was made just 17 days before the end of SCO's fiscal year. Accordingly, their 2003 figures simply reflect SCO's actual results.

<sup>38</sup> Deutsche Bank's October 14, 2003 forecast of SCO's 2003 revenues, which reflect SCO's actual results for the year, includes a "forecast" of \$0 for 2003 RTU license revenues.

license revenue because it was produced by an external analyst, and is more conservative than SCO's June 26, 2003 forecast of \$40 million.<sup>39</sup>

44. My estimate of lost revenues for 2005 is \$51.834 million. I compute this figure by taking expected sales of \$52.0 million and deducting actual sales of \$0.166 million. My expected sales estimate is based on the October 14, 2003 Deutsche Bank forecast. Deutsche Bank forecast \$42.0 million of SCOSource RTU license revenue and \$10 million of SCOSource vendor license revenue.<sup>40</sup> I rely on Deutsche Bank's vendor license revenue forecast because it was produced by an external analyst, and is more conservative than SCO's internal forecast.<sup>41</sup>

45. My estimate of lost revenues for 2006 is \$51.884 million. I compute this figure by taking expected sales of \$52.0 million and deducting actual sales of \$0.116 million. My estimate of the expected revenue from SCOSource RTU licenses is \$42 million, based on an assumption of no growth in this revenue stream after 2005. This assumption is highly conservative given that Deutsche Bank assumed 83% growth in sales between 2004 and 2005. It is also conservative relative to Dr. Gary Pisano's analysis which suggests a positive rate of growth in the number of North American Linux deployments for which the SCOSource RTU license could apply. My estimate of the expected revenue from SCOSource vendor licenses is based on the RRG forecast. This is the only forecast available for this stream of revenue for 2006.

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<sup>39</sup> For the reasons discussed above I do not rely on RRG's March 6, 2003 forecast or SCO's Aug. 11, 2004 internal forecast.

<sup>40</sup> Deutsche Bank's \$10 million forecast of vendor license revenue agrees to RRG's March 6, 2003 forecast of the same revenue stream.

<sup>41</sup> Between July and October 2003 SCO produced another internal forecast of vendor license revenue. *See* SCON0048419. According to this document SCO anticipated \$40 million in vendor license revenue in 2004 and 2005.

46. My estimate of lost revenues for 2007 is \$51.897 million. I compute this figure by taking expected sales of \$52.0 million and deducting a forecast of actual sales of \$0.103 million.<sup>42</sup> As discussed above, my \$42 million estimate of the expected revenue from SCOSource RTU licenses is based on a conservative assumption of no growth in this revenue stream after 2005. My \$10 million estimate of the expected revenue from SCOSource vendor licenses is based on an assumption of no growth in this revenue stream after 2006. This assumption is consistent with RRG's steady state assumption imbedded in their 2005 and 2006 forecasts of this stream of revenue.

47. As shown in Exhibit 8, based on the above, my estimate of SCO's lost sales during the damage period from May 28, 2003 through October 31, 2007 is **\$209.190 million.**

48. Dr. Gary Pisano's analysis of the potential market for SCOSource RTU licenses yields a range of 1.478 million to 3.325 million lost RTU licenses. Using Deutsche Bank's forecasted price of \$100 per license Dr. Pisano's figures suggest lost RTU license revenues of \$147.8 million to \$332.5 million. My estimate of SCOSource lost revenues includes \$147.786 million of lost RTU license revenues (*see* Exhibit 8). Accordingly, my estimate is conservative and reasonable as it is consistent with Dr. Pisano's lower bound estimate.

### C. Computation of Lost Profits

49. I compute SCO's lost SCOSource profits by deducting estimated incremental costs associated with this revenue stream. My analysis of SCO's lost profits is detailed in Exhibit 12. The categories of incremental cost I considered include: (1) cost of licensing

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<sup>42</sup> Actual revenues are from SCO's 2007 first quarter 10-Q plus revenues that are expected to be recognized through to the end of the year per discussion with SCO.

revenues; (2) marketing expenses, and (3) administrative expenses. Cost of licensing revenues includes the salaries and other personnel costs of employees dedicated to the SCOSource initiative, legal and professional fees, and an allocation of corporate costs. Marketing expenses consist of sales employees' salaries, commissions and other personnel costs, advertising and an allocation of corporate costs. Administrative expenses include the salaries and benefits of finance, human resources, and executive management, expenses for professional services and corporate allocations.

50. I employ regression analysis to estimate the expense percentages to apply to SCO's lost sales. Estimating a regression equation of expense on sales is a standard technique for determining the variable portion of an expense.<sup>43</sup> The intercept of the regression equation captures the fixed component of the expense and the slope coefficient captures the variable relationship between the expense and revenues. I perform this regression analysis using SCO's quarterly data from the first quarter of 2002 through the first quarter of 2007.

51. My analysis assumes that the relationship between expenses and revenues that holds for the SCO Group, Inc. is appropriately applied to SCOSource licensing revenues. I make this assumption because expense data specific to SCOSource licensing revenues is limited. As a check on the reasonableness of my assumption, I considered several alternative approaches to estimating the expense percentages to apply to SCO's lost sales including: (1) using industry data for all firms in SCO's industry (Prepackaged Software) with quarterly data on Compustat, (2) using actual data reported for the SCOSource division, and (3) using the SCOSource cost of sales percentages implied by the RRG forecasts. Of all these

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<sup>43</sup> Practice Aid 06-4, Calculating Lost Profits, Business Valuation and Forensic & Litigation Services Section, American Institute of Certified Public Accountants.

alternatives, my approach based on data for the SCO Group, Inc., yields the most conservative estimate of lost profits.

52. I employ a regression model, in which the explanatory variable is revenue and the dependent variable is cost of revenue, to estimate the relevant cost of revenue percentage.<sup>44</sup> The model is statistically significant.<sup>45</sup> Variation in revenues explains 38% of the variation in cost of revenues. The slope coefficient, which is my estimate of the cost of revenue percentage, is 0.16671.<sup>46</sup> This parameter estimate is highly significant. *See* Exhibit 9 for the results of estimating the cost of revenue regression model.

53. I employ a regression model, in which the explanatory variable is revenue and the dependent variable is sales and marketing expenses, to estimate the relevant marketing expense percentage. The model is statistically significant.<sup>47</sup> Variation in revenues explains 62% of the variation in sales and marketing expenses. The slope coefficient, which is my estimate of SCO's marketing expense percentage, is 0.28843. This parameter estimate is highly significant. Moreover, it is conservative relative to the sales and marketing expense percentage of 23% implied by Deutsche Bank's October 14, 2003 forecast. *See* Exhibit 10 for the results of estimating the marketing expense regression model.

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<sup>44</sup> SCO follows the practice of charging all of its legal expenses related to its ongoing litigation with IBM and Novell to the cost of SCOSource licensing revenue. Moreover, research and development costs recorded in the SCOSource division pertain to SCO's legal activities as well. Since these costs are not part of "normal" operations, but are extraordinary in nature they are not appropriately deemed incremental to current year licensing revenues. Accordingly, for purposes of my analysis, I exclude these costs from my analysis.

<sup>45</sup> F-value is 13.33, p-value is 0.0017.

<sup>46</sup> I also estimated the regression equation using data from all firms in SCO's industry (Prepackaged Software) with quarterly data on Compustat. The average coefficient estimate from year-by-year regressions for 2000 through 2005 is 0.16016. Moreover, RRG assumes a cost of SCOSource revenues percentage of 10% in its February 24, 2003 forecast. Relative to these alternatives, my estimated percentage is conservative and yields a lower estimate of lost profits.

<sup>47</sup> F-value is 33.89, p-value is < 0.0001.

54. I also employ a regression model, in which the explanatory variable is revenue and the dependent variable is administrative expenses, to estimate the relevant administrative expense percentage. The model is not statistically significant.<sup>48</sup> This suggests that SCO's administrative expenses do not vary with sales, but are fixed in nature. *See* Exhibit 11 for the results of estimating the administrative expense regression model.

55. This finding is consistent with the administrative cost assumption underlying Deutsche Bank's October 14, 2003 forecast. For fiscal years 2004 and 2005 Deutsche Bank forecast \$105.771 million and \$107.400 million in total revenues, respectively. To support revenues at this level, Deutsche Bank forecast general and administrative expenses of \$6.052 million, and \$6.652 million up only slightly from the \$5.938 million incurred to support \$77.268 million in revenues in 2003. Deutsche Bank's 2004 and 2005 forecasts imply an administrative expense percentage of approximately 6%. My analysis of SCO's actual administrative costs relative to what SCO's revenues would be including its lost SCOSource revenues yields an average administrative cost percentage of 10.2% (*see* Exhibit 12), which is conservative relative to Deutsche Bank's 6% figure. Accordingly, in my opinion the lost SCOSource revenue does not give rise to any incremental administrative costs and accordingly I do not include a charge for incremental administrative expenses in my analysis.

56. I compute lost SCOSource profits by deducting incremental cost of revenues, and sales and marketing expenses from SCOSource lost sales. *See* Exhibit 13 for details of this computation. My estimate of SCOSource lost profits is **\$113.979 million**.

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<sup>48</sup> F-value is 0.48, p-value is 0.4947.

57. As noted previously, Dr. Gary Pisano's analysis of the potential market for SCOSource RTU licenses suggests a range of lost RTU license revenues of \$147.8 million to \$332.5 million. Based on my profit margin estimate of 54% (*see* Exhibit 13) this suggests lost profits related to RTU license revenues of \$80.5 million to \$181.2 million. My estimate of SCOSource lost profits includes \$80.523 million of lost profits relating to RTU license revenues (*see* Exhibit 13). Accordingly, my estimate is conservative and reasonable as it is consistent with the lower bound estimate of lost profits suggested by Dr. Pisano's analysis.

58. Due to insufficient data at the industry level, Dr. Pisano does not consider lost SCOSource vendor licenses. In contrast, my lost revenue estimate of \$209.190 includes \$61.404 million of lost SCOSource vendor license revenues (*see* Exhibit 8). Applying the 54% profit margin to this figure yields lost profits attributable to vendor licenses of \$33.457 million (*see* Exhibit 13). Adding these lost profits to the lost profits attributable to RTU licenses, which I derived from Dr. Pisano's analysis, yields lost SCOSource profits from \$113.957 million to \$214.657 million. Compared to this range, my estimate of \$113.979 million is conservative.<sup>49</sup>

59. Dr. Pisano's estimated range of lost RTU licenses is based on a market analysis. The range of lost profits of \$113.957 million to \$214.657 million suggested by Dr. Pisano's analysis independently supports my calculation of SCO's damages discussed herein.

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<sup>49</sup> At this time, I do not address the possibility that SCO could sell SCOSource licenses in the future as a means of reducing their lost profits. I agree with Gary Pisano's explanation that such future sales are highly uncertain and speculative given the changes in the market since Novell's first statements about SCO's copyright ownership.

## VII. Pre-Judgment Interest Adjustment

60. As shown in Exhibit 13, the \$113.979 million of lost profits I estimated would have been earned over a several year period beginning in 2003 and ending, for purposes of my damages analysis, in 2007. If SCO had actually earned these profits they could have been reinvested in SCO, thereby generating additional profits for the firm.

61. It is my understanding that Utah state law allows pre-judgment simple interest at an annual rate of 10%. Except for 2003, I assume that SCO's lost profits would have been earned evenly over the year, and compute interest from the mid-point of each fiscal period. For 2003, I assume the lost profits would have been earned evenly over the period June 1, 2003 through October 31, 2003, and hence begin my interest computation from August 15, 2003.<sup>50</sup>

62. My estimate of lost profits including simple interest at an annual rate of 10% through to October 31, 2007 is **\$136.965 million**. Details of the computation are provided in Exhibit 14.

63. While the computation above may be that which is required under Utah state law it does not reflect the economic loss suffered by SCO due to the time value of money. If SCO had actually earned the lost profits they could have been reinvested in SCO, thereby generating additional profits that would have compounded over time. Accordingly, SCO's economic loss due to the time value of money is more appropriately measured using SCO's minimum required return (i.e. SCO's cost of capital) compounded annually.

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<sup>50</sup> Dr. Pisano estimates the number of lost RTU licenses that SCO could have sold by the end of the damages period but for Novell's actions. He does not allocate lost sales across time as any assumption regarding customer adoption rates would be purely speculative. Given this, I make no interest adjustment to the lost profit figures suggested by Dr. Pisano's market analysis.

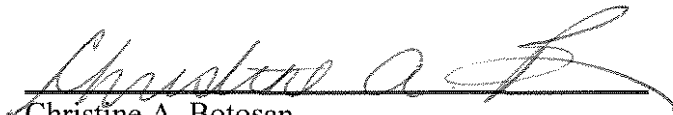


64. SCO's cost of capital is effectively its cost of equity capital because SCO had little interest-bearing long-term debt in its capital structure as of April 30, 2003. I used the Capital Asset Pricing Model to estimate SCO's cost of equity capital.<sup>51</sup> My estimate of SCO's cost of (equity) capital is 21.88% (*see* Exhibit 2).<sup>52</sup> If compound interest at SCO's minimum required return were allowed, my estimate of SCO's damages would be **\$174.147 million.**

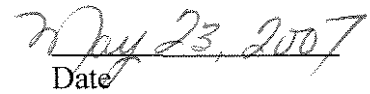
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<sup>51</sup> The Capital Asset Pricing Model is a generally accepted method for estimating cost of equity capital. (*See* Practice Aid 06-4, Calculating Lost Profits, Business Valuation and Forensic & Litigation Services Section, American Institute of Certified Public Accountants.)

<sup>52</sup> "It is not uncommon for a company's cost of equity to exceed 20%, especially among smaller, less mature companies." (Practice Aid 06-4, Calculating Lost Profits, Business Valuation and Forensic & Litigation Services Section, American Institute of Certified Public Accountants, pg. 36)



Christine A. Botosan  
George S. Eccles Professor  
Professor of Accounting



Date

## **Exhibit 1**

### **List of Documents Considered**

I have considered the following documents in forming my opinions:

- Asset Purchase Agreement by and Between the Santa Cruz Operation, Inc. and Novell, Inc. Dated as of September 19, 1995.
- Amendment No. 1 to the Asset Purchase Agreement referenced above.
- Amendment No. 2 to the Asset Purchase Agreement referenced above.
- Technology License Agreement between Novell, Inc. and The Santa Cruz Operation, Inc.
- The SCO Group, Inc. Second Amended Complaint filed in connection with Case No. 2:04CV00139.
- Novell, Inc.'s Answer to SCO's Second Amended Complaint and Counterclaims filed in connection with Case No. 2:04CV00139.
- Novell, Inc.'s Amended Counterclaims filed in connection with Case No. 2:04CV00139.
- Memorandum in Support of Novell, Inc.'s Motion for Partial Summary Judgment or Preliminary Injunction filed in connection with Case No. 2:04CV00139.
- May 21, 2004, Merrill Lynch letter. Bates Ref. SCON0114012-17.
- SCO Establishes SCOsource to License UNIX Intellectual Property; PR Newswire. New York: Jan 22, 2003. pg. 1.
- Novell's Copyright Claim a Twist in Dispute; Matthew Fordahl. The San Diego Union Tribune. San Diego, CA.: May 29, 2003. pg. C.4.
- Novell Admits It Sold Rival Some Unix Rights; [THIRD Edition] Hiawatha Bray, Globe Staff. Boston Globe. Boston, Mass.: Jun 7, 2003. pg. C.1.
- Novell Registers Disputed Copyrights on Unix; [Late Edition (East Coast)] Laurie J. Flynn. New York Times. New York, N.Y.: Dec 23, 2003. pg. C.5.
- Bates Ref. SCON0048419.
- Bates Ref. SCON0024112-13.
- FY 2004 – 2005 Operating Plan Budget SCOsource. Bates Ref. SCO1750290.
- Bates Ref. SCO1616531.
- Board of Directors Financial Overview – June 26, 2003. Bates Ref. SCO1786913-33.
- Bates Ref. SCO1786921.
- Bates Ref. SCO1769390-433.
- Renaissance Research Group forecasts for the SCO Group, Inc. dated February 24, 2003; March 6, 2003; and April 21, 2003.
- Deutsche Bank forecast for the SCO Group, Inc. data Oct. 14, 2003.
- Novell Press Release, May 28, 2003. Bates Ref. SCON0024115-17.
- Novell Press Release, June 6, 2003. Bates Ref. SCON0024123.
- June 26, 2003 letter from Joseph LaSala, Jr. to Darl McBride. Bates Ref. SCON24148.
- Aug. 4, 2003 letter from Joseph LaSala, Jr. to Darl McBride. Bates Ref. SCON0024152.

- Novell Dec. 22, 2003 Press Release, “Novell Statement on UNIX Copyright Registrations.”  
[http://www.novell.com/news/press/novell\\_statement\\_on\\_unix\\_copyright\\_registrations](http://www.novell.com/news/press/novell_statement_on_unix_copyright_registrations)
- SCO Press Release, August 5, 2003. Bates Ref. SCON0055211.
- SCOsource licensing agreement with Microsoft.
- SCOsource licensing agreement with Sun.
- SCO Group, Inc. 10-K’s: 2001-2006.
- SCO Group, Inc. 10-Q’s: Q1, 2001 through Q1, 2007.
- May 28, 2003 letter from Jack Messman to Darl McBride (disclosed in Novell press release the same day). SCON0024115-17.
- SCO Says Clause Bolsters Linux Claim, Cnet News.com, June 5, 2003.
- NOV000043025-43049. (Novell’s copyright applications).
- Deposition Exhibit No. 1010, Feb. 6, 2006 Christopher Stone Deposition in SCO v. Novell.
- April 30, 2007, Deposition of Chris Sontag in SCO v. Novell.
- March 23, 2007, Deposition of Maureen O’Gara in SCO v. Novell at 11-12.
- April 24, 2007, Deposition of Ryan Tibbits in SCO v. Novell.
- March 20, 2007 Deposition of Hunsaker in SCO v. Novell.
- October 6, 2004, Deposition of Gasparro in SCO v. IBM.
- November 5, 2004, Deposition of Langer in SCO v. IBM.
- October 7, 2004, Deposition of Pettit in SCO v. IBM.
- *Rediscovering the Economics of Loss Causation*, 6 J.Bus. & Sec. L. 93, at 109.
- *Event Studies and the Law, Part II*, Yale Int’l Center for Finance Working Papers No. 260 at 17.
- *How Broad are the Implications of the Supreme Court’s Ruling on Loss Causation in Dura Pharmaceuticals?*, Friedman Kaplan Seiler & Adelman LLP Newsletter at 3.
- *Does the Efficient Market Theory Help Us Do Justice In a Time of Madness?* 54 Emory L.J. 843, 847 (2005).
- Practice Aid 06-4, Calculating Lost Profits, Business Valuation and Forensic & Litigation Services Section, American Institute of Certified Public Accountants.
- Materiality and Magnitude: Event Studies in the Court Room, Chapter 19, Litigation Services Handbook, The Role of the Financial Expert, Third Edition, John Wiley & Sons, Inc.
- Brown, S. and J. Warner, 1980, “Measuring security price performance”, Journal of Financial Economics 8, 205-258.
- The Search for Value: Measuring the Company’s Cost of Capital, M. Ehrhardt, Harvard Business School Press, 1994.
- <http://www.novell.com/licensing/indemnity/legal.html>

## Exhibit 2

### SCOsource Actual Revenues

Actual Revenue (\$ in thousands)	2003					2004				
	Jan_03	Apr_03	Jul_03	Oct_03	Total	Jan_04	Apr_04	Jul_04	Oct_04	Total
SCOsource RTU license revenue	-	-	-	-	-	20	11	678	120	829
SCOsource vendor license revenue	-	8,250	7,280	10,316	25,846	-	-	-	-	-
Total revenue	-	8,250	7,280	10,316	25,846	20	11	678	120	829

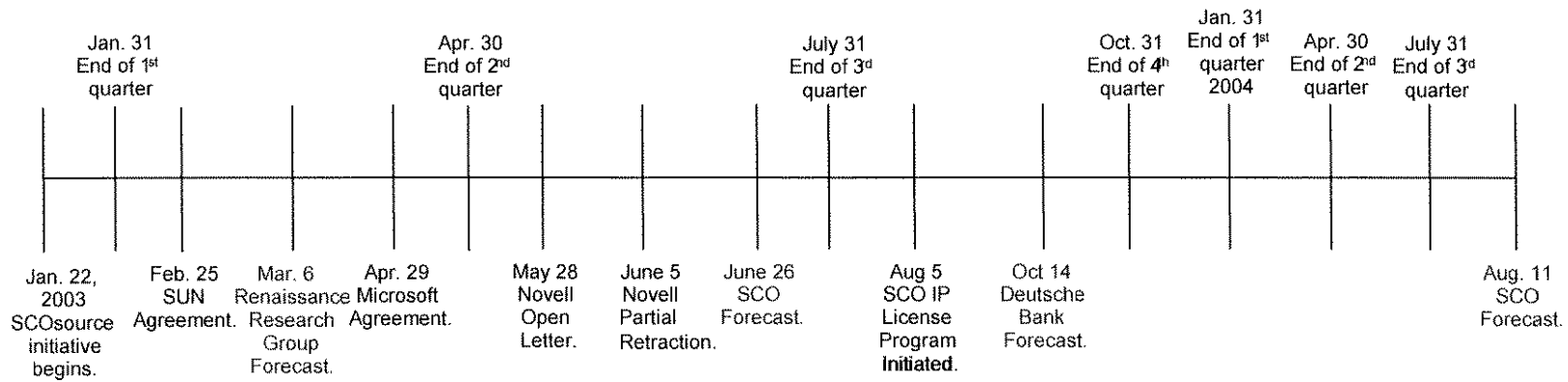
Actual Revenue (\$ in thousands)	2005					2006					2007 Total
	Jan_05	Apr_05	Jul_05	Oct_05	Total	Jan_06	Apr_06	Jul_06	Oct_06	Total	
SCOsource RTU license revenue	70	30	32	34	166	30	34	31	21	116	103
SCOsource vendor license revenue	-	-	-	-	-	-	-	-	-	-	-
Total revenue	70	30	32	34	166	30	34	31	21	116	103

Except for 2007, data drawn from SCO's publicly available 10-Q's and 10-K's.

"Actual" revenues for 2007 include revenues recognized during the first quarter of 2007 plus forecasted revenues (per SCO) through to the end of the fiscal year.

## Exhibit 3

### Timeline of Events Pertinent to the Firm Level Lost Profits Analysis



## Exhibit 4

### Renaissance Research Group Forecast Dated March 6, 2003

#### Renaissance Research Group Forecast (\$ in thousands) (March 6, 2003)

Revenue:	2003	2004	2005	2006
Recurring SCOSource Revenue	2,050	4,752	na	na
Arrearages Settlements	10,000	10,000	10,000	10,000
Total SCOSource licensing revenues	12,050	14,752	10,000	10,000

\*This forecast predated the addition of SCOSource license to end users to the product mix.

## Exhibit 5

### SCO Internal Forecast Dated June 26, 2003

#### SCO Produced Forecasts (\$ in thousands) (Bates SCO1786921) - June 26, 2003

##### Revenue:

SCOsourc RTU license revenue  
SCOsourc vendr license revenue

##### Total revenue

2003	2004
na	na
27,250	40,000
27,250	40,000

\*This forecast predated the addition of SCOsourc license to end users to the product mix.



## Exhibit 6

### Deutsche Bank Forecast Dated Oct. 14, 2003

#### Deutsche Bank Forecast (\$ in thousands) (October 14, 2003)

##### Revenue:

SCOsource RTU license revenue  
SCOsource vendor license revenue

##### Total revenue

2003 Actual	2004 Forecast	2005 Forecast
-	23,000	42,000
24,863	30,000	10,000
24,863	53,000	52,000

**Exhibit 7**

**SCO Internal Forecast Dated Aug. 11, 2004**

**SCO Produced Forecasts (\$ in thousands) (Bates SCO1750290) (Aug. 11, 2004)**

**Revenue:**

SCOsource licensing revenue

	<b>2004</b>	<b>2005</b>
	4,500	1,500

## Exhibit 8

### Computation of Lost Revenues

#### Summary of Lost Revenues (\$ in thousands)

	2003	2004	2005	2006	2007	Total
SCOsourc RTU license revenue	-	23,000	42,000	42,000	42,000	149,000
SCOsourc vendor license revenue	27,250	30,000	10,000	10,000	10,000	87,250
<b>Expected SCOsourc revenues</b>	27,250	53,000	52,000	52,000	52,000	236,250
Less: Actual SCOsourc sales (Exhibit 2)	(25,846)	(829)	(166)	(116)	(103)	(27,060)
<b>Lost SCOsourc revenues</b>	1,404	52,171	51,834	51,884	51,897	209,190

#### Summary of Lost Revenues By Type (\$ in thousands)

	2003	2004	2005	2006	2007	Total
Lost SCOsourc RTU license revenue	-	22,171	41,834	41,884	41,897	147,786
Lost SCOsourc vendor license revenue	1,404	30,000	10,000	10,000	10,000	61,404
<b>Lost SCOsourc revenues</b>	1,404	52,171	51,834	51,884	51,897	209,190

## Exhibit 9

### Results of Estimating Cost of Revenue Regression

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: cogs

Number of Observations Read	21
Number of Observations Used	21

#### Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	15106971	15106971	13.33	0.0017
Error	19	21530959	1133208		
Corrected Total	20	36637930			

Root MSE	1064.52260	R-Square	0.4123
Dependent Mean	2272.76190	Adj R-Sq	0.3814
Coeff Var	46.83828		

#### Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	228.10482	606.26755	0.38	0.7109
sales	1	0.16671	0.04566	3.65	0.0017

## Exhibit 10

### Results of Estimating Marketing Expense Regression

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: marketing

Number of Observations Read 21  
 Number of Observations Used 21

#### Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	45220880	45220880	33.89	<.0001
Error	19	25350304	1334227		
Corrected Total	20	70571184			

Root MSE	1155.08724	R-Square	0.6408
Dependent Mean	4633.00000	Adj R-Sq	0.6219
Coeff Var	24.93173		

#### Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	1095.46056	657.84598	1.67	0.1123
sales	1	0.28843	0.04954	5.82	<.0001

## Exhibit 11

### Results of Estimating Administrative Expense Regression

The REG Procedure  
 Model: MODEL1  
 Dependent Variable: admin

Number of Observations Read	21
Number of Observations Used	21

#### Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	79655	79655	0.48	0.4947
Error	19	3121605	164295		
Corrected Total	20	3201261			

Root MSE	405.33320	R-Square	0.0249
Dependent Mean	1836.85714	Adj R-Sq	-0.0264
Coeff Var	22.06667		

#### Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	1688.38686	230.84561	7.31	<.0001
sales	1	0.01211	0.01739	0.70	0.4947

## Exhibit 12

### Administrative Expense Analysis

(\$ in thousands)	2003	2004	2005	2006	Total
General and administrative expenses as reported	6,230	7,626	7,047	6,928	27,831
Revenues as reported	79,254	42,809	36,004	29,239	187,306
Lost revenues	765	28,426	28,242	28,270	85,703
Total revenues including lost revenues	80,019	71,235	64,246	57,509	273,009
Administrative expense percentage	7.8%	10.7%	11.0%	12.0%	10.2%

Note: This analysis excludes 2007 since a full year of revenue and expense data is not yet available.

Data obtained from SCO Group, Inc. 10-K's.

### Exhibit 13

#### Computation of Lost Profits

##### Summary of Lost Profits (\$ in thousands)

##### Lost revenues (Exhibit 8)

2003	2004	2005	2006	2007	Total
1,404	52,171	51,834	51,884	51,897	209,190

Cost of licensing revenues

234	8,697	8,641	8,650	8,652	34,874
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Marketing expenses

405	15,048	14,950	14,965	14,969	60,337
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Total incremental expenses

639	23,745	23,592	23,614	23,620	95,211
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##### Estimated lost profits

765	28,426	28,242	28,270	28,277	113,979
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##### Profit margin

54%

##### Summary of Lost Profits By Type (\$ in thousands)

Lost SCOSource RTU license profits

-	12,080	22,794	22,821	22,828	80,523
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Lost SCOSource vendor license profits

765	16,346	5,449	5,449	5,449	33,457
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Lost SCOSource revenues

765	28,426	28,242	28,270	28,277	113,979
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## Exhibit 14

### Computation of Lost Profits Including Adjustment for Interest

(\$ in thousands)	2003	2004	2005	2006	2007	Total
Estimated lost profits (Exhibit 13)	765	28,426	28,242	28,270	28,277	113,979
# of years through Oct. 31, 2007	4.21	3.50	2.50	1.50	0.50	
10% interest per year	76	2,843	2,824	2,827	2,828	
Simple interest	322	9,949	7,061	4,240	1,414	22,986
Estimated lost profits including simple interest	1,087	38,375	35,303	32,510	29,690	136,965

**Exhibit 15**  
**Christine A. Botosan, Ph.D.**  
**Professor of Accounting**  
**George S. Eccles Professor**

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Home page: [www.business.utah.edu/~actcb/](http://www.business.utah.edu/~actcb/)

**Education**

- **University of Michigan**, Ann Arbor, MI  
Doctor of Philosophy (Business Administration) August 1995
- **Canadian Institute of Chartered Accountants**  
Chartered Accountant September 1985
- **Wilfrid Laurier University**, Ontario, Canada  
Bachelor of Business Administration August 1984

**Academic Experience**

- **The University of Utah**  
Professor of Accounting 2006 to present  
Associate Professor of Accounting 2002 to 2006  
Assistant Professor of Accounting 1999 to 2002
- **Washington University**  
Assistant Professor of Accounting 1994 to 1999
- **Wilfrid Laurier University**  
Lecturer 1986 to 1989

**Research Interests**

- Determinants and implications of corporate financial reporting strategy.
- Accounting information and stock market efficiency.

**Teaching Interests**

- Financial Accounting.
- Corporate Financial Reporting.
- Financial Statement Analysis.

**Dissertation**

- *The Effect of Disclosure Level on the Cost of Equity Capital and Stock Market Liquidity.*  
Committee Co-Chairs: Victor Bernard and Russell Lundholm.

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## Publications and Accepted Papers

1. *Disclosure and the Cost of Equity Capital. What Do We Know?*  
Accounting and Business Research, 2006.
2. *Financial Accounting and Reporting Standards for Private Entities.*  
Accounting Horizons, June 2006.  
With AAA Financial Accounting Standards Committee.
3. *Accounting for Liabilities: Conceptual Issues, Standard Setting, and Evidence from Academic Research.*  
Accounting Horizons, September 2005.  
With Lisa Koonce, Steven Ryan, Mary Stone and James Wahlen.  
\*2006 Accounting Horizons Best Paper Award.
4. *Response to the FASB's Exposure Draft on Fair Value Measurements*  
Accounting Horizons, September 2005.  
With AAA Financial Accounting Standards Committee.
5. *Response to the FASB's Exposure Draft on Share-Based Payment (An Amendment of FASB Statements No. 123 and 95).*  
Accounting Horizons, June 2005.  
With AAA Financial Accounting Standards Committee.
6. *Managers' Motives to Withhold Segment Disclosures and the Effect of SFAS 131 on Analysts' Information Environment.*  
The Accounting Review, July 2005.  
With Prof. Mary Stanford.
7. *Assessing Alternative Proxies for the Expected Risk Premium*  
The Accounting Review, January 2005.  
With Prof. Marlene Plumlee.
8. *Response to FASB Exposure Draft: Accounting Changes and Error Corrections.*  
Accounting Horizons, December 2004.  
With AAA Financial Accounting Standards Committee.
9. *Discussion of A Framework for the Analysis of Firm Risk Communication*  
The International Journal of Accounting, Fall 2004.
10. *The Role of Information Precision in Determining Cost of Equity Capital*  
Review of Accounting Studies, June/September 2004.  
With Prof. Marlene Plumlee and Yuan Xie.
11. *Evaluation of the IASB's Proposed Accounting and Disclosure Requirements for Share-Based Payments*  
Accounting Horizons, March 2004.  
Principle co-author with AAA Financial Accounting Standards Committee
12. *Commentary on the IASB's Exposure Draft on Business Combinations*  
Accounting Horizons, March 2004.  
With AAA Financial Accounting Standards Committee
13. *Comments on the FASB's Proposals on Consolidating Special-Purpose Entities and Related Standard-Setting Issues*  
Accounting Horizons, June 2003.  
Principle co-author with AAA Financial Accounting Standards Committee.

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### **Publications and Accepted Papers (continued)**

14. *A Re-examination of Disclosure Level and Expected Cost of Equity Capital*  
Journal of Accounting Research, March 2002.  
With Prof. Marlene Plumlee.
15. *Stock Option Expense: The Sword of Damocles Revealed*  
Accounting Horizons, December 2001.  
With Prof. Marlene Plumlee.
16. *Motivations for Changes in Disclosure Frequency and its Consequences: An Examination of Voluntary Quarterly Segment Disclosure.*  
Journal of Accounting Research, Fall 2000.  
With Prof. Mary Harris.
17. *Evidence that Greater Disclosure Lowers Cost of Equity Capital.*  
Journal of Applied Corporate Finance, March 2000.
18. *Synopsis of Disclosure Level and Cost of Equity Capital.*  
Financial Accounting Standards Board, Research Supplement, September 1999.
19. *Disclosure Level and the Cost of Equity Capital.*  
The Accounting Review, July 1997.  
\*1996 American Accounting Association Competitive Manuscript Award.  
\*2001 American Accounting Association Notable Contributions to Accounting Literature Award
20. *Is Greater Voluntary Disclosure Associated with A Lower Cost of Equity Capital?*  
Valuation Issues, July/August 1996, Volume 2, Issue 4.
21. *Challenges to the Efficient Markets Hypothesis: Limits to the Applicability of "Fraud-on-the-Market Theory."*  
The Nebraska Law Review, Spring 1995.  
With Prof. Victor Bernard and Mr. Gregory Phillips.

### **Working Papers**

22. *Are Information Attributes Priced?*  
With Prof. Marlene Plumlee.

### **Work In Progress**

23. *The Cost of Capital Effect of Andersen's Demise.*  
With Professors William Kinney and Zoe-Vonna Palmrose.
24. *The Value of Auditing: What Is an Audit Worth?*  
With Professors William Kinney and Zoe-Vonna Palmrose.
25. *Estimating Firm-Specific Cost of Equity Capital.*  
With Professor Marlene Plumlee.
26. *Fundamental Analysis Using Detailed Tax Information.*  
With Brad Barrick (PhD student) and Marlene Plumlee.
27. *Post Earnings Announcement Drift – Is There a Risk-Based Explanation?*  
With Uri Loewenstein and Marlene Plumlee.
28. *Information Relevance and Financial Reporting Flexibility.*  
With Karen Nelson and Mary Stanford.

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### **Textbook In Progress**

29. *Guide to Financial Reporting and Analysis*.  
With Professors Eugene Comiskey and Charles Mulford.

### **Research Awards and Honors**

- 2006 Accounting Horizons Best Paper Award.
- 2006 to present George S. Eccles Professor.
- 2002 to 2006 C. Roland Christensen Faculty Fellow.
- 2000 to 2002 George S. Eccles Emerging Scholar.
- 2001 AAA Notable Contributions to Accounting Literature Award.
- 1996 AAA Competitive Manuscript Award.

### **Teaching Awards and Honors**

- 2005 Masters Teaching Excellence Award, University of Utah.
- 2002 Brady Superior Teaching Award, University of Utah.
- 1998, 1997, and 1995 Reid Teaching Award, Washington University.

### **Research Fellowships and Grants**

- 2004 University of Utah Faculty Research Grant.
- 2000 University of Utah Faculty Research Grant.

### **Teaching Experience**

#### ***University of Utah***

##### **Fall 2006**

- Financial Reporting (Acct. 6610/5610) – mean overall teaching rating – 5.5/6.0.
- Capital Markets PhD Seminar – mean overall teaching rating – 5.8/6.0.

##### **Fall 2005**

- Financial Reporting (Acct. 6610/5610) – mean overall teaching rating – 5.6/6.0.

##### **Fall 2004**

- Financial Reporting (Acct. 6610/5610) – mean overall teaching rating – 5.7/6.0.

##### **Fall 2003**

- Financial Reporting (Acct. 6610/5610) – mean overall teaching rating – 5.3/6.0.

##### **Fall 2002**

- Financial Reporting (Acct. 6610/5610) – mean overall teaching rating – 5.6/6.0.

##### **Spring 2002**

- Financial Statement Analysis (Acct. 6620/5620) – mean overall teaching rating – 5.8/6.0.

##### **Fall 2001**

- Financial Reporting (Acct. 6610/5610) – mean overall teaching rating – 5.8/6.0.

##### **Spring 2001**

- Financial Statement Analysis (Acct. 6620/5620) – mean overall teaching rating – 5.8/6.0.

##### **Fall 2000**

- Advanced Financial Accounting (Acct. 5130) – mean overall teaching rating – 5.5/6.0.
- Financial Reporting (Acct. 6610) – mean overall teaching rating – 5.4/6.0.

##### **Fall 1999**

- Advanced Financial Accounting (Acct. 5130) – mean overall teaching rating – 5.7/6.0.
- Financial Reporting (Acct. 5610) – mean overall teaching rating – 5.6/6.0.

#### ***Washington University***

##### **Spring 1995 - Fall 1998**

- Introductory Financial Accounting (Acct. 2610) – mean overall teaching rating – 4.6 to 4.8/5.0.
- Advanced Financial Accounting (Acct. 468/563) – mean overall teaching rating – 4.6 to 5.0/5.0.
- Intermediate Accounting II (Acct. 3620) – mean overall teaching rating – 4.7 to 4.9/5.0.
- Financial Reporting (Acct. 562) – mean overall teaching rating – 4.6 to 4.8/5.0.

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### **Professional Work Experience**

- **Collins Barrow Chartered Accountants**, Supervisor, 1985-1988  
Kitchener, Ontario, Canada.
- **KPMG Peat Marwick**, Staff Accountant, 1984-1985  
Toronto, Ontario, Canada.

### **Consulting Engagements**

- Gerson Lehrman Group. 2004 to present.
- Working RX. 2006/2005
- GSC Foundrie, Inc. 2005
- Blinds to Go v. Charles Bank Equity Fund. 2004
- Rexall v. Schroeder 2003
- Moody's Investor Services 2003
- Total Renal Care v. Nephrology Associates. 2002/2003
- Schmid and Anderson v. FESCO 2002

### **Expert Witness Engagements**

- Freightliner Inc. v. Dick Simon Trucking. 2002/2003
- Lifewise Family Financial Security, Inc et al v. Telebank. 2001/2002

### **Service**

#### **Academic Committees**

##### ***University of Utah***

- 2007 to present Member of the Vision Team.
- 2007 Chair of the Teaching Excellence Award Committee.
- 2007 to present Chair of the Building Committee Faculty Office Team.
- 2004 to present Director of the School of AIS PhD Program.
- 2003 to present School of AIS Representative to the PhD Committee.
- 2005 to present Remodel Task Force.
- 2004/05 President of the Faculty of the David Eccles School of Business.
- 2004/05 Chair of the David Eccles School of Business College Council.
- 2004 Member of David Eccles School of Business Strategic Planning Steering Committee.
- 2003/04 President-Elect of the Faculty of the David Eccles School of Business.
- 2003/04 Member of David Eccles School of Business College Council.
- 2003/04 University Joint Apportionment Board.
- 2003/04 University Faculty Budget and Planning Committee.
- 2002/03 PhD Curriculum Review Committee Co-Chair.
- 2002/04 Emma Eccles Jones Endowment Advisory Executive Committee.
- 2002/03 Business College RPT Committee.
- 2001/03 Acct. Faculty Recruiting Committee Chair.
- 2000/03 University Research Committee.
- 2000/01 MBA Curriculum Committee.

##### ***Washington University***

- 1995/98 BSBA Curriculum Committee.
- 1995/98 Dean's Scholarship Selection Committee.
- 1996/98 5-Yr Acct. Program Committee.
- 1995/97 Code of Conduct/Disciplinary Committee.

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## **Supervisory and Dissertation Committees**

### ***The University of Utah***

- Xiaoli Ortega (Supervisory Committee Chair, degree expected 2010)
- John Marsh (Supervisory Committee Chair, degree expected 2009).
- Brad Barrick (Supervisory Committee Member, degree expected 2009).
- Mindy Wolfe (Supervisory Committee Member, degree expected Summer 2008).
- Perry Solheim (Supervisory Committee Chair, degree expected Summer 2007).
- Yuan Xie (Dissertation Committee Chair, degree conferred 2006).
- Orly Sade (Dissertation Committee Member, degree conferred 2001).
- Claire Bush (Dissertation Committee Co-Chair, degree conferred 2002).

### ***Washington University***

- Ramesh Chari (degree conferred 1999)
- Feng Gu (degree conferred 1998)

## **Service to the Academic Community**

### ***Editorial Boards/Reviewing***

- Associate Editor
  - Journal of International Accounting Research (2001 to 2003).
- Editorial Board Member
  - Contemporary Accounting Research (2007 to present).
  - The Accounting Review (2004 to present).
  - Accounting Horizons (2000 to present).
  - Journal of International Accounting Research (2000 to 2001).
- Ad hoc Reviewer
  - Contemporary Accounting Research.
  - Decision Sciences Journal.
  - Journal of Accounting, Auditing and Finance.
  - Journal of Accounting and Economics.
  - Journal of Accounting Literature.
  - Journal of Accounting and Public Policy.
  - Journal of Accounting Research.
  - Journal of Business Finance and Accounting.
  - Journal of Economics and Management Strategy.
  - The Review of Accounting Studies.

### ***Other***

- 2005 to present AAA Finance Committee Member
  - 2005 AAA Journal Task Force Committee Member.
  - 2003/05 and 2006 to present AAA FARS Secretary/Treasurer.
  - 2006 PAC 10 Plus Doctoral Consortium Planning Committee Chair.
  - AAA Financial Accounting Standards Committee
    - 2004/05 Chair.
    - 2002/04 Committee Member.
  - AAA/FASB Financial Issues Conference.
    - 2004 Planning Committee Member.
    - 2002 Discussion Leader.
  - American Acct. Association Competitive Manuscript Committee.
    - 2002/03 Chair.
    - 2000/02 Committee Member.
  - 2002 FAR Section, Best Paper Award Committee Member.
-

### **Conference Presentations**

#### **2005**

- Institute of Chartered Accountants of England and Wales, Information for Better Markets Conference – Invited speaker.
- American Acct. Association 2005 New Faculty Consortium – Invited speaker.
- 2005 PAC 10 Doctoral Consortium – Invited speaker.

#### **2004**

- American Acct. Association 2004 New Faculty Consortium – Invited speaker.
- FARS 2004 Mid-year Meeting – Invited speaker.

#### **2003**

- American Acct. Association 2003 New Faculty Consortium – Invited speaker.
- Carnegie Mellon University Accounting Conference – Presenter.
- KPMG & UIUC Business Measurement Conference – Discussant.
- Review of Accounting Studies 2003 Conference – Presenter.

#### **2002**

- National Forum for Corporate Finance 2002 Meeting – Invited speaker.
- American Acct. Association 2002 New Faculty Consortium – Invited speaker.

#### **2001**

- Ph.D. Project Accounting Doctoral Student Association Annual Meeting – Invited speaker.
- American Acct. Association 2001 Annual Conference.

### **Academic Presentations**

#### **2007**

- Brock University.
- Ohio State University.
- University of Oklahoma.
- Pennsylvania State University.

#### **2006**

- University of Indiana.
- University of Southern California.
- University of Tennessee.
- Washington University in St. Louis.

#### **2005**

- London Business School.
- University College Dublin.
- University of Wisconsin at Madison.

#### **2004**

- University of Toronto.

#### **2003**

- Brigham Young University.
- Case Western Reserve University.
- University of Illinois.
- Rice University.
- Rochester University.
- Wharton University.

#### **2002**

- University of Arkansas.
- The College of William and Mary.
- Washington University in St. Louis.



## Appendix 1

### Event Study

Standard financial economics methodology uses the market model to estimate the return that a stock would have earned *absent* an event (i.e. the “expected return”) given the relationship of the stock with the market.<sup>53</sup> The difference between the return that a stock earned *given* an event (i.e. the “realized return”) and the expected return is the “abnormal return” associated with the event.

The market model specifies the relationship between a firm’s return ( $R_{i,t}$ ) and the return on the market ( $M_{i,t}$ ) via the following basic regression equation:

$$R_{i,t} = \alpha_i + \beta_i M_{i,t}$$

Where  $M_{i,t}$  = Daily returns of the NASDAQ composite index.

$$R_{i,t} = P_{i,t}/P_{i,t-1}$$

$P_{i,t}$  = the price of asset i at time t.

$P_{i,t-1}$  = the price of asset i at time t-1 (the previous day).

I employ an estimation window that begins with the 4<sup>th</sup> quarter 2001 and ends with the 3<sup>rd</sup> quarter 2004, for three complete years of data. I measure the significance of the following nineteen events in 2003 by looking at a one-day event window on which these events occurred.

### Events Included in Event Study

Date	Event
January 22, 2003	SCO hires Boies to investigate property rights and SCO establishes SCOsource to license UNIX intellectual property.
Feb. 26, 2003	SCO announces first quarter earnings.

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<sup>53</sup> See Brown and Warner (1980) for a comparison of alternative approaches.

<b>Date</b>	<b>Event</b>
Mar. 7, 2003	SCO files \$1bn lawsuit against IBM.
May 14, 2003	The SCO Group signs second SCOsource license agreement; expects net income of \$0.29 per share for second-quarter fiscal 2003.
May 15, 2003	VP Chris Sontag announces that SCO will reveal the "stolen" code to a panel of "respected analysts and respected third parties". Sontag claims both "pre-IBM" and "post-IBM" infringement.
May 19, 2003	Microsoft, who up to this point has remained silent on the issue of SCO vs. IBM, buys a Unix license from SCO for \$10M. VP Chris Sontag praises Microsoft's "respect [for] the intellectual property of software".
May 22, 2003	The SCO Group invites you to join its second-quarter 2003 results conference call.
May 28, 2003	Novell issues open letter prior to the start of SCO's financial call. SCO conference call to announce second quarter results.
June 5, 2003	SCO comes across a 1996 amendment to Novell's contract with the "old" SCO company transferring ownership rights to SCO. A paralegal discovers it in a filing cabinet. The amendment backs up SCO's claims of copyright ownership. Novell somewhat grudgingly accepts the validity of the document and states that the language, though "convoluted", supports a transfer of some copyrights.
June 16, 2003	SCO Announces Immediate Termination of IBM's Right to Use and Distribute AIX Software and Files for Permanent Injunction.
July 21, 2003	SCO registers UNIX copyrights and offers UNIX license.
August 4, 2003	Statement regarding Red Hat lawsuit and letters to Red Hat.
August 8, 2003	IBM countersues SCO over patents, Linux distribution.

<b>Date</b>	<b>Event</b>
August 14, 2003	The SCO Group reports third-quarter results.
August 21, 2003	SCO unveils new web services components.
September 24, 2003	HP promises to indemnify users of Linux on its gear.
October 16, 2003	The SCO Group closes \$50 million equity financing.
December 22, 2003	The SCO Group reports strong fourth quarter and fiscal 2003 results. SCO announces second round of letters sent to corporate users of Linux.

To determine whether a given event is associated with a statistically significant abnormal return, each event is assigned an indicator variable marking the day the event occurred. The market model is augmented by the addition of these indicator variables yielding the following regression equation:

$$R_t = \alpha + \beta M_t + \beta_1 \text{Event1} + \beta_2 \text{Event 2} + \dots + \beta_n \text{Event } n$$

In this equation ( $\alpha + \beta M_t$ ) captures the expected return absent a firm specific event. The coefficients on the event indicator variables, i.e.  $\beta_1, \beta_2, \dots, \beta_n$ , capture the additional abnormal return given the event. A statistically significant coefficient on an event indicator variable suggests that the event is associated with an abnormal return outside the range of returns that would have otherwise been expected with reasonable certainty given the historical variance of abnormal returns. The results of estimating this regression equation with event indicator variables for each of the nineteen events listed above are shown below. Events shown in bold indicate a statistically significant abnormal return at the 95% level.

### Event Study Regression Results

Variable	Estimate	Standard Error	t Value	Approximate Pr >  t
Intercept	0.0015	0.0029	0.52	0.6032
<b>NASDAQ Returns</b>	<b>0.6143</b>	<b>0.1653</b>	<b>3.72</b>	<b>0.0002</b>
event22Jan2003	0.1013	0.0798	1.27	0.2044
<b>event26Feb2003</b>	<b>0.3502</b>	<b>0.0798</b>	<b>4.39</b>	<b>&lt;.0001</b>
<b>event07Mar2003</b>	<b>0.4001</b>	<b>0.0798</b>	<b>5.01</b>	<b>&lt;.0001</b>
event14May2003	0.0761	0.0798	0.95	0.3402
<b>event15May2003</b>	<b>0.2736</b>	<b>0.0798</b>	<b>3.43</b>	<b>0.0006</b>
<b>event19May2003</b>	<b>0.4483</b>	<b>0.0799</b>	<b>5.61</b>	<b>&lt;.0001</b>
<b>event22May2003</b>	<b>0.1687</b>	<b>0.0798</b>	<b>2.11</b>	<b>0.0349</b>
<b>event28May2003</b>	<b>-0.2464</b>	<b>0.0798</b>	<b>-3.09</b>	<b>0.0021</b>
<b>event05Jun2003</b>	<b>0.2851</b>	<b>0.0798</b>	<b>3.57</b>	<b>0.0004</b>
event16Jun2003	-0.0417	0.0799	-0.52	0.6022
event21Jul2003	0.1229	0.0798	1.54	0.1242
event04Aug2003	-0.0893	0.0798	-1.12	0.2635
event08Aug2003	-0.0239	0.0798	-0.3	0.7647
event14Aug2003	0.0349	0.0798	0.44	0.6617
<b>event21Aug2003</b>	<b>0.2052</b>	<b>0.0798</b>	<b>2.57</b>	<b>0.0103</b>
event24Sep2003	-0.0733	0.0799	-0.92	0.3593
event16Oct2003	-0.0348	0.0798	-0.44	0.6629
event22Dec2003	-0.06	0.0798	-0.75	0.4526

*Statistically significant events indicated in bold.*

The results presented indicate several events that gave rise to significant abnormal returns for SCO. The market responded positively to several announcements including: SCO's first quarter earnings – 35% (February 26, 2003); SCO's suit against IBM – 40% (March 7, 2003); SCO would reveal the code that had been placed in Linux without SCO's consent – 27% (May 15, 2003); the agreement with Microsoft – 45% (May 19, 2003); invitation to join SCO's second quarter conference call – 17% (May 22, 2003); SCO finds the amendment to the APA and asserts it supports SCO's ownership of the copyrights – 28% (June 5, 2003); and SCO unveils new web services components – 20% (August 21, 2003). The *only* date with a significant *negative* abnormal return is May 28, 2003, the date of Novell's open letter. On that date, SCO's shares experienced a significant negative abnormal return of approximately 25%. Thus, my analysis supports

the conclusion that Novell's May 28, 2003 announcement resulted in a significant decline in SCO's market value.

## Appendix 2

### Estimation of SCO's Cost of Equity Capital

As of April 30, 2003, SCO had little interest-bearing long-term debt in its capital structure. Accordingly, SCO's cost of capital is comprised of its cost of equity capital. I employ the Capital Asset Pricing Model (CAPM) approach to estimate SCO's cost of equity capital.

The CAPM states that a firm's required return ( $E(R_i)$ ) is:

$$E(R_i) = R_f + \beta_i (E(R_m) - R_f)$$

Where  $R_f$  is the risk free rate,  $\beta_i$  is a measure of the amount of risk the security presents to the market measured by the covariance between the security's return and the market's return, and  $E(R_m - R_f)$  is a measure of the expected price of risk, also referred to as the market risk premium.

Each of the inputs into the model above must be estimated. The most commonly used method of estimating  $\beta_i$  is via a simple regression between the security's return and the market risk premium over a historical time period. Using monthly SCO returns, the 30-day Treasury bill rate for the risk free rate, and monthly NASDAQ market returns from July 1, 2001 through May 2003, I estimate SCO's  $\beta_i$  to be 2.60. This figure is close to, albeit somewhat less than, the 2.77  $\beta_i$  estimate for SCO listed on the NASDAQ webpage ([www.nasdaq.com](http://www.nasdaq.com)) on April 5, 2007.

The estimate of the risk free rate should be based on a security with no default risk, which limits the choice to U.S. Treasury securities. When monthly data is used to estimate the CAPM, the implicit assumption is the period underlying the model is fairly

short, and a short-term risk-free rate is most appropriate. The most commonly used estimate of the short-term risk-free rate is the yield on a short-term Treasury bill.<sup>54</sup> As of May 1, 2003 the annualized 30-day Treasury bill rate was 1.08%.

The most common approach used to estimate the expected risk premium relies on historical data. Most textbooks recommend using a historical average based on a large number of observations.<sup>55</sup> Most estimates of the historical risk premium estimated over long periods of time range between 7% - 9%. For purposes of estimating SCO's cost of equity capital, I use the midpoint of the range – 8%.

Using the estimates described above I estimate SCO's cost of capital as follows:

$$E(R_{SCO}) = 1.08\% + 2.60(8.0\%) = 21.88\%.$$

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<sup>54</sup> The Search for Value: Measuring the Company's Cost of Capital, M. Ehrhardt, Harvard Business School Press, 1994.

<sup>55</sup> Ibid.