UNITED STATES BANKRUPTCY COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

In re:	)	
	)	
NANOVATION TECHNOLOGIES, INC., and NANOVATION TECHNOLOGIES OF MICHIGAN, INC.,	)	Case No. 01 B 26090 (Jointly Administered)
	)	
	)	Chapter 7
Debtor.	)	
	)	
BARRY CHATZ, Chapter 7 Trustee,	)	
	)	Adv. No. 03 A 2300
Plaintiff,	)	
	)	
v.	)	
	)	Judge Pamela S. Hollis
BEARINGPOINT INC., et al.,	)	
	)	
Defendants.	)	

MEMORANDUM OPINION

I. INTRODUCTION

In the late 1990s, the U.S. economy appeared unstoppable. Unemployment and inflation were low, the growth rate was high, and the Internet revolutionized business. The summer of 2000 was the apogee of the technology boom. The stock market, especially the NASDAQ index, reached astronomical all-time highs in March 2000. The volume of IPOs soared. Companies no longer needed to show 12 quarters of profit before going public – they no longer needed any profits, or even revenues. In the oft-repeated phrase coined by Alan Greenspan, the American economy was in a period of "irrational exuberance."

During this period, no sector was more exuberant than the telecommunications niche.[1] Presumably, companies that could move escalating Internet traffic fastest could make the most money. One method of moving such information was through fiber-optic cable.

The debtor, Nanovation Technologies, Inc., focused on integrated optical solutions for telecommunications, data communications, networking, access, avionics, and other markets. Nanovation believed it had a better, faster way to move data, and its early investors would get a fantastic return. "The telecommunications business was hot, and optical engineers were the hottest commodities of them all…"[2]

Unfortunately, in the fall of 2000, members of the fiber-optics community began to realize that too much fiber-optic cable was already deployed. Only 10% of the existing cable was currently being used. Moreover, due to continuing improvements in technology, that 10% would soon be able to carry double or even triple the expected traffic. To compound matters, the expected traffic never materialized:

> Telecom has turned into one of history's biggest bubbles because so much money poured into the industry during the stock-market boom, creating some $470 billion in debt and a vast glut of capacity. Once a sleepy industry known for its modest growth, telecom took off like a rocket in the late '90s as companies rushed to lace the world with ultra-fast fiber-optic networks to carry an expected onslaught of Internet traffic. But after a frenzy of spending and hiring, it suddenly became clear in mid-2001 that the Internet wasn't growing nearly as fast as the 1,000-fold annual increases originally predicted. The huge run-up has now been replaced by a merciless ride down. Rumors of foreclosures and marital problems have replaced word of the latest IPO. Some laid-off telecom workers are even turning up in local homeless shelters.
>
> So much money was spent buying telecom gear during the frenzy that there is now seven years' worth of excess inventory, says Lonnie Martin, chief executive of White Rock

[1] Katz, Raul L., "Irrational Exuberance: "How the Telecom Industry Went Astray", http://www.strategy-business.com, accessed November 15, 2006, © 2006 Booz, Allen, Hamilton.
[2] Blumenstein, Rebecca., "For Telecom Workers, Burst of Bubble Takes Heavy Toll," The Wall Street Journal, August 19, 2002, page 1.

> Networks, a Richardson start-up that is trying to hang on. He values the excess supply at some $160 billion. "That is an awful lot of exuberance to get rid of," he says.[3]

Shortly after the bubble burst, on July 25, 2001, Nanovation voluntarily sought relief under Chapter 11 of the Bankruptcy Code. Eventually the case converted to Chapter 7 and a trustee was appointed to administer the estate. The trustee brought this adversary proceeding against defendants BearingPoint, Inc., f/k/a KPMG Consulting, Inc., f/k/a KPMG Consulting LLC; BearingPoint LLC, f/k/a KPMG Consulting LLC; KPMG Consulting LLC; and KPMG Consulting, Inc. (collectively, "KPMG"). The trustee alleges that KPMG's September 30, 2000 valuation of Nanovation stock was improperly inflated to permit insiders to repay loans from the company with company stock that was virtually worthless. The trustee reasons that if the stock had not been grossly overvalued by KPMG, the insiders could not have repaid the notes with the stock and would be liable to the bankruptcy estate in an amount exceeding twenty million dollars.

While not quite "irrational", the trustee's exuberant pursuit of KPMG was seriously misguided. Two critical errors haunted the trial of this case. First, to establish damages the trustee had to contradict himself by accepting KPMG's valuation methodology before September 30, 2000 but rejecting it on September 30 and thereafter.

Nanovation's loans to its directors and officers never involved the transfer of cash from the company to these insiders. The loans merely enabled them to purchase Nanovation stock. The amount of the loans was based on the value of stock or options given to the directors and officers. If the stock was worthless despite KPMG's valuation methods on September 30, then the stock was similarly worthless months earlier when KPMG used identical assumptions to

value the stock at the time of the insiders' purchase. Accordingly, the face amount of the notes to purchase the "worthless" stock would be miniscule at best, and not the twenty million dollars or so that the trustee seeks to recover here.

The trustee's failure to ask his expert Robert Reilly to value Nanovation stock at the time the stock loans were given exposes this incongruity. If Reilly valued the stock at the time of the purchase, his choice of a 5% perpetual growth rate (which he insists is realistic as opposed to KPMG's 15%) in the discounted cash flow analysis, or his selection of only one pricing fundamental for the market multiple approach, would not have changed from his September 30 valuation. So, Reilly would have to conclude that the stock was also nearly worthless when it was purchased with the loans. As a result, the loans from Nanovation to the insiders would be small or non-existent. In all likelihood, loans would not be necessary to purchase a "penny" stock in contrast to the actual loans given to purchase a $9.00 stock.

The trustee depended on KPMG's valuation methods at the time the loans were extended but assailed the same valuation approach when the loans were repaid. By accepting KPMG's valuation of the stock before September 30, but rejecting the same approach taken on September 30 and after, the trustee aims to invent damages. The court is not fooled. If Reilly's valuation methods were superior as of September 30, then they were superior prior to that time. If KPMG adopted Reilly's techniques on both occasions, there would be little or no insider loans to collect because large sums of money were not required to buy worthless stock. Instead KPMG used a different approach that was consistent both before and after September 30, which also ended up with no insider loans to collect. The end result is the same, no matter which valuation approach is used, *as long as the approach is consistently applied.* Damages can only accrue if KPMG's

approach is valid at the time the stock is purchased and suddenly invalid when the notes are repaid.

The second major flaw in the trustee's case was his expert's refusal to take into account *any* real market transactions involving the purchase and sale of Nanovation's stock. KPMG valued Nanovation's stock at $9.20 a share on September 30, 2000, while Reilly valued the stock at *fifteen cents* a share on that same day. When the stock was actually bought and sold by third parties shortly before September 30, its price nearly always *exceeded* KPMG's $9.20 valuation. Not one stock sale came close to fifteen cents. While there are reasons to discount some of those real world transactions, it is imprudent to completely ignore them. What appraiser considers theoretical textbook valuation methods *exclusively* when the asset is repeatedly bought and sold in the real world?

This case consumed eight days of trial time. Thousands of pages of exhibits were offered and accepted into evidence. The trustee's proposed findings of facts consisted of 219 pages, with 907 paragraphs of findings. KPMG submitted 138 pages of post trial proposed findings with 768 paragraphs. The court's own personal trial notes exceeded 50 pages. After pouring through this material, the court is left with the firm conviction that KPMG's September 30 valuation was not only within the bounds of professional care and applicable standards, it was at least as credible as Reilly's. On the other hand, had KPMG adopted Reilly's 5% perpetual growth rate or his other valuation methods at the time the stock was sold to insiders, KPMG's valuation of Nanovation's stock would have been dramatically lower. If the stock was worth almost nothing when initially transferred to the insiders, then no loans were needed to exercise the stock options, leaving the trustee with nothing to collect-- and no damages here.

There are three counts in the Complaint. Count I alleges a breach of contract, asserting that KPMG failed to properly ascertain the fair market value of Nanovation stock on or about September 30, 2000. It is asserted this valuation was used by Nanovation to determine the amount of stock that had to be returned to retire the loans. Count II alleges defendants were negligent in their preparation of the September 30 valuation. Count III further alleges that defendants aided and abetted insiders in breaching their fiduciary duties to Nanovation. For the reasons stated below, the court enters judgment in favor of KPMG and against the trustee on all counts.

II. FINDINGS OF FACT

Debtor's History and Products

1. Debtor, Nanovation, a Delaware Corporation, was formed in 1999 as a successor company to U.S. Integrated Optics ("USIO"), which was established in 1996.

2. Nanovation researched, developed, designed, and marketed photonic integrated circuits, which are used in fiber-optics in the telecommunications and internet industries.

3. Nanovation's backers believed that Nanovation's technology was unique and potentially as significant as the invention of the electronic transistor switch in the electronics industry in the 1950s.

4. In order to accommodate its growth, Nanovation relocated its headquarters in the fall of 2000 from Miami, Florida to Northville, Michigan, where it purchased a 108,000 square foot manufacturing facility.

5. Nanovation obtained an $8.6 million term loan from LaSalle Bank in July of 2000 in order to purchase the Northville facility.

6. In early 2001 Nanovation consolidated its technical staff (previously housed in laboratories at Northwestern University in Evanston, Illinois) and its management staff (previously headquartered in Miami, Florida) in Northville.

7. All of the key employees were willing to relocate to Northville. Employees like John Ofenloch believed in the company's promise and thought, even as of early 2001, that the company had a "great chance" of being "a tremendous success."

8. Nanovation's plans for the Northville facility included a manufacturing facility with 33,000 square feet of clean room space required for the fabrication of photonic devices, and 45,000 square feet of manufacturing space and wafer fabrication facilities.

9. Nanovation also put production machines into the facility for manufacturing, and acquired all of the pieces of equipment necessary for the manufacturing process.

10. Nanovation's officers, directors and employees had confidence in Nanovation's future throughout the year of 2000, and did not begin to lose confidence until sometime in 2001.

11. Pursuant to an Exclusive License Agreement with Northwestern University executed in April 1999, Nanovation obtained exclusive licensing rights to future intellectual property developed at Northwestern.

12. Nanovation also entered into a Master Research Collaboration Agreement with the Massachusetts Institute of Technology ("MIT") in December 1999, which enabled Nanovation to use MIT resources and intellectual property developed pursuant to the agreement.

13. Investors believed this MIT Agreement was a very valuable asset of Nanovation.

14. In August 2000, Nanovation entered a Joint Development and Licensing Agreement with Motorola, under which Nanovation and Motorola agreed to jointly develop fiber optics products that would be sold exclusively to Motorola.

15. Motorola was interested in using Nanovation's technology in the area of broadband communications, so that it could develop a more advanced way of bringing cable television into the home.

16. Nanovation and Motorola also agreed to jointly own any intellectual property that was developed pursuant to the agreement.

17. Nanovation employees personally invested significant sums of money in Nanovation. Specifically:

a. Nanovation staff, including secretaries, invested as much as $100,000 in Nanovation stock at $10 per share.

b. Joseph Carr, L.J. Rodriguez, and Carlos Garcia each invested $100,000.

c. Steve Barney invested between $2 million and $3 million and he and Gary Bjorklund committed several million dollars in bridge financing to Nanovation in 2001.

d. Gary Bjorklund invested $300,000 to participate in DIP financing even after Nanovation had filed for Chapter 11 bankruptcy.

18. As a start up company with almost no revenue, Nanovation was dependent upon venture capital to support its operations.

Stock and Options Compensation

19. In order to conserve cash and to capitalize upon the belief that Nanovation would one day engage in a successful initial public offering, Nanovation used Nanovation stock and stock options in 1998 and 1999 as compensation for Nanovation executives.

20. On September 6, 1999, Nanovation hired Carlos Garcia, an accountant working for Deloitte & Touche.

21. Garcia realized that Nanovation was not withholding any taxes related to the value of this compensation, so he and Deloitte encouraged Nanovation management to obtain a valuation study of the company's stock and stock options so that the company could determine the value of the compensation it had paid to its employees in the form of stock and stock options.

22. Nanovation retained KPMG to perform a valuation of Nanovation's common stock so that Nanovation could value, for tax purposes, the stock and stock options that Nanovation had been providing its employees as compensation.

23. In December, 1999, KPMG delivered a written Valuation Study to Nanovation management in which KPMG expressed the opinion that the value of Nanovation common stock, as of November 18, 1999, was $7.02 per share.

24. Nanovation used KPMG's November 18, 1999 Valuation report to determine the amount of withholding tax that it owed the Internal Revenue Service for the stock and stock options it had previously issued as partial compensation.

25. Nanovation asked its officers and directors to reimburse it for the unanticipated withholding tax expense.

26. Between October 1, 2000 and February 1, 2000, five directors and officers signed the following promissory notes in favor of Nanovation to compensate the company for the withholding obligations (hereinafter "Tax Notes"):

Maker	**Principal Amount**	**Exhibit Number**
Robert Tatum	$350,000	103;1039
Robert Tatum	$864,491.49	104; 1040
Seth Joseph	$63,986.00	111; 1051
Robert Bratter	$226,191.32	120; 1059
Joseph Carr	$196,688.10	117; 1069

27. If the value of Nanovation's stock was really closer to fifteen cents per share, as opposed to $7-15 per share, there would have been substantially less tax to withhold for the options grant and the Tax Notes would be substantially smaller, if needed at all.

28. Under the terms of the Tax Notes, no principal or interest was due until six months after an initial public offering of Nanovation common stock, the date on which the maker of each note engaged in a sale of Nanovation common stock for an aggregate amount in excess of the principal amount of the note, or five years after the note was signed, whichever was earlier.

29. Each of the Tax Notes contained an identical provision regarding the manner in which they could be repaid:

> MAKER may satisfy his obligations to HOLDER by tendering a number of shares of Common Stock of the Payee with a Market Value (as hereinafter defined) equal to the amount due. For purposes of this Note, the term "Market Value" means the weighted average of the daily trading prices of Payee's Common Stock during a period of not less than five consecutive trading days ending not more than three trading days before the due date on NASDAQ or any US securities exchange and if not so traded, the fair market value thereof determined by the Board of Directors of Payee, in good faith and in its sole discretion, and

provided further that any such determination by the Board of Directors of Payee shall be conclusive and binding. (Exs. 103 at N009565; 104 at N009550; 111 at GEN0008132; 120 at GEN0008793; 117 at GEN0008765; 114 at GEN0008769).

30. Nanovation's common stock did not trade on the NASDAQ or any US securities exchange, so the makers of the Tax Notes could repay those loans at any time by tendering shares of Common Stock of Nanovation to the Board, which the Board would be obligated to accept at the fair market value most recently set by the Board.

31. Despite this opportunity, at no time during 2000 and 2001 did the makers of the Tax Notes voluntarily seek to return their shares.

32. Two makers of the notes testified that they believed those shares to have a value in excess of the fair market value established by the Board. (6/29/05 Barney Dep. at 444-445; 3/15/05 Chaney Dep. at 189-190).

Cashless Exercise of $15 Stock Options

33. In or around December, 1999, Nanovation engaged JP Morgan to act as its placement agent for raising $100 million proposed at $50 per share in new capital by issuing stock to an investor known as Metromedia Fiber.

34. JP Morgan advised Nanovation's management that Metromedia Fiber would be more likely to make the investment, or would invest more, if Nanovation's officers and directors owned a greater stake in the company. JP Morgan suggested that Nanovation officers and directors exercise stock options they held, through which they were entitled to purchase Nanovation stock at $15 per share, and at $10 for some shares owned by Seth Joseph, in order to increase their ownership in the company. "There was a general consensus on the Board that it was to the benefit of the company [to enter into the cashless exercise] in order to obtain a larger investment from Metromedia Fiber. . . .". 4/5/05 Davidson Dep. at 221.

35. In order to increase the likelihood of successfully raising $100 million from Metromedia Fiber, a number of Nanovation officers and directors agreed to exercise their $15 options in January, 2000.

36. Nanovation's officers and directors did not need to exercise their options in order to enjoy the benefits of an IPO at prices greater than $15 per share. Had the company later engaged in an IPO at prices greater than $15 per share, the officers and directors could have simply exercised their options at that time and enjoyed the benefit of the difference in value between the strike price ($15 per share) and whatever price the public market was setting for the shares at that time. Alternatively, they could have simply sold their options for a like amount at that time. There was no advantage to the officers and directors to exercise the options in lieu of just holding them. Indeed, the exercise appears detrimental to their interests since each was saddled with a much larger liability than the original Tax Note obligation. Nevertheless, the officers and directors took on the additional liability to increase Nanovation's chances of attracting additional capital.

37. Moreover, if the stock was only really worth 15 cents a share, or even a dollar, the officers and directors would not have agreed to exercise their options to buy the stock at $15 and no loans would have been made by Nanovation to the insiders.

38. However, it was apparent the parties believed that Nanovation's stock was worth $15 per share, so the transaction proceeded. Nanovation worked with its independent auditor, Deloitte & Touche, to structure a "cashless exercise" of the options.

39. Under the cashless exercises of options, Nanovation loaned directors and officers money that the directors and officers used to exercise options to purchase Nanovation stock.

However, no money changed hands; the directors and officers received Nanovation stock in exchange for issuing notes to Nanovation agreeing to re-pay Nanovation at a later date.

40. On or about January 7, 2000, the following notes were executed in connection with the exercise of stock options held by the makers of the notes (hereinafter "Cashless Exercise Notes"):

[0]**Maker**	**Principal Amount**	**Exhibit Number**
Tatum Enterprises, L.P.	$8,842,185	105
S. Joseph Enterprises, L.P.	$3,000,000	109
Joseph Family Enterprises, LP	$1,500,000	110
Robert Bratter	$2,210,550	124
Joseph Carr	$2,210,550	118
James Davidson	$2,210,550	115

41. All six of the Cashless Exercise Notes had identical terms except for the amount. None of the notes matured until January 7, 2005, and no payment of principal or interest was due until that time unless an event of default occurred, or unless the maker sold shares of stock acquired by way of the note.

42. The Cashless Exercise Notes were all secured by the stock acquired by exercising the options to which the notes related.

43. Pursuant to the cashless exercise of options transactions:

a. Tatum Enterprises, L.P. exercised 589,479 options to purchase Nanovation common stock at $15 per share;

b. S. Joseph Enterprises, L.P. exercised 300,000 options to purchase Nanovation common stock at $10 per share;

c. Joseph Family Enterprises, L.P. exercised 100,000 options to purchase Nanovation common stock at $15 per share;

d. Robert Bratter exercised 147,370 options to purchase Nanovation common stock at $15 per share;

e. Joseph Carr exercised 147,370 options to purchase Nanovation common stock at $15 per share; and

f. James Davidson exercised 147,370 options to purchase Nanovation common stock at $15 per share.

44. As part of the cashless exercise of options, company counsel Seth Joseph and President Robert Tatum created limited partnerships to issue the promissory notes to Nanovation and to hold the stock that was purchased from Nanovation with the proceeds of those notes.

45. Nanovation engaged the law firm of Therrell Baisden to assist in the establishment of those limited partnerships.

46. Joseph Family Enterprises, L.P. and S. Joseph Enterprises, L.P. were limited partnerships formed pursuant to the laws of the State of Delaware. 99% of Joseph Family Enterprises, L.P. and S. Joseph Enterprises, L.P. was owned by trusts in which Joseph held no interest. The remaining 1% of Joseph Family Enterprises, L.P. and S. Joseph Enterprises, L.P. was owned by S. Joseph Group, Inc. 50% of the stock of S. Joseph Group, Inc. was owned by Joseph, the remaining 50% was owned by Joseph's wife, Jacqueline Joseph. Accordingly, Joseph owned, derivatively, only a .5% stake in Joseph Family Enterprises, L.P. and S. Joseph Enterprises, L.P. Jeffrey Goldberg was the general partner of Joseph Family Enterprises, L.P. and S. Joseph Enterprises, L.P. and had control of those limited partnerships. The remaining

partners of Joseph Family Enterprises, L.P. and S. Joseph Enterprises, L.P. were all limited partners.

47. Tatum Enterprises, L.P. was a limited partnership formed pursuant to the laws of the State of Delaware. The general partner of Tatum Enterprises, L.P. was Tatum Group, Inc. Tatum's family were the shareholders in Tatum Group, Inc. Jeffrey Goldberg was the President of Tatum Group, Inc. The remaining partners of Tatum Enterprises, L.P. were all limited partners.

48. These three limited partnerships executed the notes involved in the cashless exercise of stock options previously held by Mr. Tatum and Mr. Joseph.

49. Nanovation once again engaged KPMG to perform a valuation study of its stock to fix the value of stock transferred to the limited partnerships established by Therrell Baisden.

50. KPMG delivered a written Valuation Study to Nanovation in which KPMG estimated the value of Nanovation common stock, as of January 7, 2000, to be $10.70 per share.

51. On January 7, 2000, Nanovation's Board of Directors set the fair market value of Nanovation common stock at $15/share and did not re-set the fair market value of Nanovation common stock until November 3, 2000, when the fair market value was set at $10 per share.

52. Nanovation's Board did not rely upon KPMG's January 7 $10.70 valuation in setting the fair market value of Nanovation's common stock on January 7, 2000. Furthermore, the draft of the preliminary estimates of the value of Nanovation's common stock as of January 7, 2000 was not provided to Nanovation until January 27, 2000, after the Board had already established the fair market value to be $15 per share.

53. Nevertheless, if KPMG had delivered a valuation study to Nanovation in which KPMG estimated the value of Nanovation common stock to have been less than $1 per share as

of January 7, 2000, January 15, 2000 or January 24, 2000, the Nanovation officers and directors would not have exercised their $15 options as part of the cashless exercise of options transactions, and/or would not have allowed those transactions to be completed, meaning that no notes would have been created for the trustee to seek repayment.

54. Each of the Cashless Exercise Notes provides that it can be repaid using Nanovation common stock:

> Borrower may satisfy his obligations to Lender by tendering a number of shares of Common Stock of the Payee with a Market Value (as hereinafter defined) equal to the amount due. For purposes of this Note, the term "Market Value" means . . . the fair market value thereof determined by the Board of Directors of Payee, in good faith and in its sole discretion, and provided further than any such determination by the Board of Directors of Payee shall be conclusive and binding. (Defendants' Exs. 105, 109, 110, 115, 118, 124).

55. If the company's stock were worth only 15 cents per share or less, there would not have been enough shares in the company to repay $19,973,835 million in debt, since as of September 30, 2000, there were 39,071,824 fully diluted shares outstanding. If these shares had a value of 15 cents per share, their total value would have been only $5,860,773.60.

56. Although the Cashless Exercise Notes granted personal recourse against the makers of the notes, in accounting for the cashless exercise of options, Nanovation did not consider the notes to constitute an asset of the company. Instead, it recorded the notes on its balance sheet as a "contra-equity account" under stockholders' equity, signaling a reader of the financial statements that it expected the notes to be repaid using company stock, not cash. If the company had expected to receive cash for those obligations, it would have recorded the notes as either a current asset or a long-term asset. (3/22/06 Tr. at 241 (Reilly); 2/25/05 Rodriguez Dep. at 318-319).

Nanovation's Employee Stock Purchase Plan

57. In early 2000, Nanovation contacted KPMG and requested that KPMG perform a Valuation Study that the Nanovation Board could use to establish a fair market value as of March 31, 2000, for purposes of the employee stock purchase plan.

58. On March 31, 2000, KPMG delivered a written Valuation Study to Nanovation in which KPMG estimated the fair market value of Nanovation common stock as of March 31, 2000, to be $18.10 per share.

59. Thereafter, Nanovation retained KPMG to perform the September 30, 2000 Valuation in order to set a price for Nanovation's employee stock purchase plan, given that six months had passed since the last valuation as of March 31, 2000.

60. Nanovation did not hire KPMG to perform the September 30 Valuation to assist Nanovation in evaluating any of the Separation and Note Repayment Agreements entered into with certain directors and officers.

61. Nanovation never informed KPMG that the September 30 Valuation would be used to assist Nanovation in evaluating any of the Separation and Note Repayment Agreements.

62. It would have been "very important" for KPMG to have known if Nanovation intended to use the September 30 Valuation Study in connection with a particular transaction in Nanovation stock, especially a series of transactions with current and former directors and officers whereby over $23 million in debt is repaid using common stock valued at a certain amount based on KPMG's work.

63. How a client intends to use a valuation study can affect the standards by which the study is performed.

64. Application of different standards could lead to a different conclusion of value.

65. Valuation studies can be conducted for "notational" purposes or for "transactional" purposes.

66. The trustee's expert Reilly agreed that one very common notational valuation is establishing the price of a company's common stock for purposes of an employee stock purchase plan.

67. Reilly further agreed that a company that has obtained a notational valuation for a purpose such as setting the price of its stock for its employee stock purchase plan should not use that valuation study for a specific transaction in the company's stock outside of the plan.

68. A "transactional" valuation is conducted for the purpose of determining the value of a security that will be used as consideration in a particular transaction.

69. Transactional valuations carry more risk for the valuation consultant. The consultant has only one chance to get the number right and millions of dollars may be riding on their opinion of value. Accordingly, valuation consultants charge higher fees for transactional valuation studies to compensate them for the extra risk they agree to incur as well as for the additional work involved in performing the valuation to a more "exacting" standard. (3/23/06 Tr. at 30-33 (Reilly)).

70. Valuations performed for transactional purposes would generally comply with the Uniform Standards of Professional Appraisal Practices ("USPAP"), whereas valuations performed for notational purposes commonly do not comply with USPAP. (3/23/06 Tr. at 27, 30-31 (Reilly)).

71. Reilly conceded that KPMG's September 30, 2000 Valuation Study was not a transactional valuation study. (3/23/06 Tr. at 57-61 (Reilly)).

72. An even more exacting standard is applied to a particular kind of valuation study known as a "fairness opinion."

73. A valuation consultant is paid much more for a fairness opinion than for other types of transactional valuations or for notational valuations. Fees for fairness opinions can be as much as five to ten times higher than fees for other types of valuation studies.

74. Fairness opinions command a premium fee because the valuation consultant knows that the valuation will be used to establish the value of a security that is being used in a transaction in which a third-party might question the fairness of the consideration to the company.

75. The valuation consultant knows and understands that if the value is later determined to be incorrect, the consultant will be exposed to liability for his or her error, whereas with notational valuations, the liability of the valuation consultant is limited because the client agrees only to use the valuation for very limited purposes and the consultant is careful to restrict how the work can be used.

76. Because a valuation consultant knows that his or her work will be relied upon in connection with an insider stock transaction when the client seeks a fairness opinion, the valuation consultant applies a different standard and engages in much more work than other types of valuation studies. (3/23/06 Tr. at 54-55 (Reilly); 3/29/06 Tr. at 87-88 (Donnalley)).

77. When preparing a fairness opinion, it is important for the valuation consultant to know and understand all of the terms of the proposed transaction and all of the facts related to the proposed transaction. (3/23/06 Tr. at 54-55 (Reilly)).

78. Fairness opinions are commonly used in stock transactions involving insiders, including debt for equity transactions, and a fairness opinion would have been the appropriate

valuation standard for the transactions Nanovation entered into with Messrs. Joseph, Tatum, Bratter, Carr and Davidson.

79. The September 30 Valuation is not a fairness opinion. (Def. Ex. 298 at N000761: ("Neither our opinion nor our report is to be construed as a fairness opinion as to the fairness of any actual or proposed transactions.")); 3/23/06 Tr. at 56-57 (Reilly); 3/29/06 Tr. at 86 (Donnalley)).

80. On August 31, 2000, Michael Halliwell, a Manager at KPMG, sent an engagement letter to Melba Chan, the CFO of Nanovation, in response to a request from Nanovation for a Valuation Study of the value of Nanovation's common stock as of September 30, 2000.

81. The August 31 engagement letter contained the same restriction on appropriate use as the February 28 engagement letter, stating that "[w]e understand that our study is for internal strategic and tax planning purposes only. No other use is intended or should be inferred." (Exs. 276, 277). The September 30 Valuation itself also provides: "We understand that the estimation of the Common Stock is as of September 30, 2000 (the "Valuation Date") and is for internal strategic and tax planning purposes only." (Def. Ex. 298 at N000744).

82. "Internal strategic and tax planning purposes" includes setting the price at which employees can purchase stock pursuant to an employee stock purchase plan.

83. "Internal strategic and tax planning purposes" does not mean - and was not intended by KPMG to mean - establishing the value of stock to be used in a series of transactions in which current and former directors and officers repay over $23 million in debt with Nanovation stock.

84. No one from Nanovation testified that they believed that "internal strategic and tax planning purposes" encompassed the Separation and Note Repayment Agreements. In fact, there is no evidence at all to suggest that either party thought "internal strategic and tax planning purposes" included a series of transactions whereby executives repaid over $23 million in debt to the company using company stock valued according to the September 30 Valuation.

85. KPMG was paid a total of $20,000 for its services in connection with the September 30 Valuation Study.

Board Establishes Fair Market Value Of Nanovation Common Stock At $10.00 Per Share

86. On November 3, 2000 the Nanovation Board of Directors met to discuss numerous topics, including setting the fair market value of Nanovation's common stock for purposes of the employee stock purchase plan.

87. In setting the fair market value of the company's stock, the Board took into account the following factors:

a. Motorola's recent purchase of Series A Nanovation preferred stock at $15.00 per share;

b. The Series B investors' recent purchase of Nanovation preferred stock at $15.00 per share;

c. The KPMG draft valuation of $9.50 per share;

d. The Board's knowledge of the recent prices at which its competitors' stock had been trading;

e. The Board's knowledge of private sales of Nanovation stock;

f. The Board's knowledge of its products as compared to those of its competitors and the unique attributes of Nanovation as compared to those competitors, including the stage of Nanovation's product development; and

g. The price at which Stamford stock, a publicly held company which had Nanovation stock as its sole asset, had been trading recently.

88. Dr. Bjorklund, one of the board members involved in setting the fair market value of Nanovation's stock, testified:

> We also, we just didn't accept [the September 30 Valuation] wholesale. We thought about it carefully and applied our own knowledge and common sense. We knew we had a tracking stock, a virtual tracking stock, in Stamford that was trading and we knew what that was doing. We had knowledge of other companies, stock of similar companies in the field were trading at that time. We knew that we had just sold stock to Motorola for, gosh, it was more than -- I think that it was $15 a share. I'm not sure, but it was more than that. So we had all those things we considered and weighed and came up with our own best common sense determination of what it should be.
>
> *****
>
> And we looked at also the behavior of stocks, of companies that had IPOs for six months or a year before.
>
> Q. Did you consider the state of the market in general?
>
> A. Yeah, many of us followed it fairly closely because we were, you know, active -- well, Mr. Barney, for instance, you know, was an active investor in that whole industry segment and had very, very good knowledge of what valuations were of companies in this area, and I relied a lot on -- I listened carefully to his opinions.
>
> (6/29/05 Bjorklund Dep. at 388-89).

89. The minutes from the November 3, 2000 Nanovation board meeting provided in part:

> The Chairman stated that, for purposes of the Company's various stock option and other plans, the Board is required to set the fair market value of the Corporation's Common Stock. The Board considered the Valuation Studies prepared by KPMG Consulting, LLC, filed as Exhibit E to these minutes, that estimated the fair market value of the Common Stock as at September 30, 2000 at $9.50 per share. The Board also discussed the recent sale of Series A and Series B Convertible Preferred Stock of the Corporation at $15.00 per share, and the recent decline in the market price of the shares of the publicly traded fiber optic companies. After a full discussion, and a motion duly made and seconded, it was
>
> RESOLVED, that the fair market value of the Corporation's Common Stock is hereby determined to be $10.00 per share effective September 30, 2000.

(Def. Ex. 316 at NT01276)

90. The minutes for the November 3 board meeting indicate that six directors were present: Steve Barney, Gary Bjorklund, Robert Bratter, James Davidson, David Grubb, and Robert Tatum.

91. The Board's decision to value Nanovation stock at $10.00 was made in good faith, taking into account a variety of reasonable factors noted earlier.

92. The KPMG valuation was not the sole, or even principal, factor in the Board's determination of the stock's value.

Seth Joseph and Robert Tatum

93. Prior to September 30, the Board started an investigation of two senior officers, Seth Joseph and Robert Tatum, who were later terminated from Nanovation.

94. Robert Tatum and U.S. Integrated Optics (Nanovation's predecessor) entered into an employment agreement whereby Mr. Tatum was hired as the President and CEO of U.S. Integrated Optics on August 15, 1998.

95. Tatum entered into a subsequent employment agreement with Nanovation whereby Tatum was hired as the President and CEO of Nanovation on September 1, 1999.

96. Robert Tatum was elected Chairman of the Board of Nanovation on November 19, 1998.

97. Seth Joseph ("Joseph") is an attorney and entered into an employment agreement with Nanovation whereby Joseph was hired as Nanovation's general counsel on July 22, 1999.

98. Joseph was previously employed at Digital Lightwave from October 1996 until he was terminated on January 29, 1998.

99. Joseph claimed that he was terminated from Digital Lightwave because he was a whistle-blower with respect to Digital Lightwave's misstatements of earnings.

100. Joseph was hired at Nanovation by Robert Tatum, and told Tatum at the time of his hiring that he (Joseph) was not in any way culpable in the earnings misstatements at Digital Lightwave.

101. However, after joining Nanovation, Joseph entered into a consent decree with the SEC on March 29, 2000.

102. As part of this consent decree, the SEC entered a cease and desist order against Joseph, summarizing the SEC's beliefs as to Joseph's responsibilities in connection with improper accounting practices by Digital Lightwave, and prohibiting Joseph from committing any future violations of securities laws.

103. In or around June, 2000, Stephen Barney, a member of Nanovation's Board of Directors, learned that Joseph had signed the consent decree and that the cease and desist order had been entered against Joseph by the SEC.

104. At a June 20, 2000 meeting of Nanovation's Audit Committee, Nanovation's outside auditors, Deloitte & Touche, indicated that they had become aware of the consent decree involving Mr. Joseph.

105. At the June 20 meeting, Deloitte indicated that disclosure of Mr. Joseph's consent decree would be required in all future fundraising materials that were distributed to potential investors. Nanovation's Board believed Deloitte would withdraw as Nanovation's external auditor if Mr. Joseph were to continue to be involved in SEC, financial, or contract matters at Nanovation.

106. On June 21, 2000 the Board voted to place Joseph on a 30 day administrative leave pending an investigation and the recommendations of its outside counsel.

107. Following its placement of Joseph on a 30 day administrative leave, the Board retained the law firm of Winston & Strawn to advise it with regard to Joseph.

108. On July 13, 2000, the Nanovation Board met and received a report from Mark Heatwole at Winston and Strawn regarding Joseph. Heatwole advised the Board that Joseph should be terminated since his continued employment could adversely affect Nanovation's ability to raise money through a public offering.

109. The Board voted to terminate Joseph's employment on July 13, 2000.

110. Shortly after placing Joseph on a 30 day administrative leave, the Audit Committee of the Board decided to investigate whether or not Tatum had engaged in any improper conduct with regard to the hiring of Joseph and other matters.

111. Whereas Winston & Strawn was primarily involved in the investigation of Joseph, McDermott Will & Emery was primarily involved in the investigation of Tatum. Investigation of Tatum raised a number of problems in addition to his hiring of Joseph. In particular, there were allegations that Tatum used company funds to pay for his wedding, awarded lucrative contracts to friends, and used company funds for personal purchases and travel.

112. Winston & Strawn retained the accounting firm of Klayman & Korman to conduct an investigation of Mr. Tatum's use of corporate funds.

113. As of June/July, 2000, Nanovation senior management became "very dissatisfied" with Tatum.

114. Nanovation's investment banker at the time, J.P. Morgan, also expressed dissatisfaction with the way Tatum was running the company. Additionally, Bjorklund believed

that Salomon Smith Barney would not have continued to serve as Nanovation's placement agent for the proposed Series C preferred stock offering if Tatum remained with the company.

115. Mr. Tatum was terminated on July 13, 2000, and he later resigned from Nanovation's Board of Directors effective February 8, 2001.

116. Both Tatum and Joseph retained legal counsel to pursue their rights under employment contracts they had with Nanovation. The court agrees with the testimony of Nanovation's attorney, Mark Heatwole, that the language of the employment contracts was extremely favorable to Tatum and Joseph.

117. At the time Nanovation began separation negotiations with Tatum and Joseph, Heatwole advised the Nanovation Board that he did not believe that Nanovation could terminate Tatum or Joseph "for cause" within the meaning of their employment agreements. (5/4/05 Bjorklund Dep. at 109-110; 3/28/06 Tr. at 115-116, 178-180 (Heatwole); 4/12/05 Barney Dep. at 111 ("[W]e thought cause was an unattainable goal.")).

118. In the event that either Tatum or Joseph were not terminated "for cause," each man would have received the following severance benefits from Nanovation:

- 24 months of salary in a lump sum ($750,000 for Tatum and $450,000 for Joseph);
- All unvested stock options would vest; and
- 24 months of all employee benefits.

119. Nevertheless, Nanovation's board wanted to disengage from Tatum and Joseph as quickly as possible in order to minimize the damage that could result from litigation with these men, particularly when Nanovation was attempting to raise funds in the public market. This separation was more important than collecting any cash on the notes Tatum and Joseph were associated with in connection with the purchase of Nanovation stock and options.

120. In his deposition, Dr. Bjorklund testified:

Q. Was getting him to repay the note that he signed and the notes that he had caused certain family partnerships to execute in connection with the cashless exercise of options, was getting those notes paid in cash very important to you?

A. No. It was more important to clear the way to raise the $75 million. We're talking about raising $75 million, which is far, far outweighs the amount of cash we ever could have gotten from him.

(6/29/05 Bjorklund Dep. at 381).

121. The most important thing was that Joseph and Tatum leave the company and return their stock. This court agrees with Dr. Bjorklund's assessment that Nanovation eventually received back all it originally gave these men:

. . . based on my non-accounting common sense way of looking at it is, you know, the stock went out, no money went out, the stock came back, no money went out. No cash ever left Nanovation's coffers. The stock was back.

(5/4/05 Bjorklund Dep. at 125-126). Another director expressed it as such: "We were agnostic as to whether it was cash, options, which had some value, or shares." (6/29/05 Barney Dep. at 430-431).

122. Additionally, there were serious questions as to whether Nanovation could even collect any cash as a result of the Tatum and Joseph notes. The notes were not executed personally by these men and the actual makers of the notes, the limited partnerships, had little or no assets. Even if Nanovation could pierce these entities and obtain a judgment against either Tatum or Joseph individually, there were also questions about their ability to pay. Moreover, the notes were not yet due.

123. Joseph and Nanovation participated in a mediation in Miami, Florida on October 17, 2000. During the course of the mediation, Nanovation proposed permitting the repayment of the Joseph Notes at either $9.50 or $10 per share. Mr. Joseph rejected Nanovation's proposal that the Joseph Notes be re-paid with Nanovation stock valued at $9.50 or $10 per share.

124. During the October 17 mediation, Nanovation and Joseph reached an agreement regarding Joseph's separation from Nanovation.

125. The Joseph Separation Agreement involves the repayment of the Joseph Notes with Nanovation stock valued at $15 per share.

126. At the time of the October 17, 2000 mediation, Heatwole believed, and advised Nanovation, that Joseph and his entities had the legal right to repay the Joseph Notes at $15 per share, because of the repayment provisions of the Notes, and also since $15 was the value most recently established by Nanovation's Board of Directors on January 7, 2000. (The September 30 Valuation decision did not occur until the November 3, 2000 Board meeting.)

127. At the time of the October 17, 2000 mediation, Heatwole believed, and advised Nanovation, that Joseph and his entities had a right to repay the Joseph Notes at $15 per share, regardless of what the KPMG September 30 Valuation concluded, since the Board had yet to re-set the market value following this KPMG valuation until November 3, 2000.

128. No evidence was presented that KPMG's September 30 valuation played any role in the decision to permit Joseph to repay the notes with stock valued at $15 per share.

129. Indeed, the Board's actions and ultimate settlement with Joseph were guided by legal counsel and prompted by factors wholly unrelated to KPMG. Some of the factors included the difficulty of raising funds when a member of senior management was in trouble with the SEC; the notes were not yet due and might never become due because of some poorly drafted language; the dearth of assets from which to collect, and the threat of litigation over an employment contract that required a large severance to be paid to Joseph if there was termination without cause.

130. Nanovation and Tatum also eventually reached a separation agreement whereby the Tatum Notes would be repaid with a combination of Nanovation stock and stock options.

131. As of the date of the Tatum Separation Agreement, the total balance of the principal and accrued interest on the Tatum Notes was $10,935,203.

132. As part of the Tatum Separation Agreement, Tatum and his limited partnership returned 951,148 shares of Nanovation stock, valued at $10 per share. Tatum and his limited partnership also returned 240,000 options to purchase Nanovation common stock, valued at $5 in the repayment (value of stock minus strike price). As part of the Tatum Separation Agreement, Tatum and his limited partnership returned 1,950,111 options to purchase Nanovation common stock, which all had a strike price of $10 per share, and which apparently received no quantitative value towards the repayment of the Tatum Notes. Tatum also abandoned some portion of his claim for severance pay, and waived the right to receive the severance in a lump sum, as part of the Tatum Separation Agreement.

133. The shares returned as partial consideration for the Tatum Separation Agreement were valued at $10 per share, not because of the KPMG September 30 Valuation Study, but rather because that was the "official" value set by the Board on November 3, 2000 for purposes of the Employee Stock Purchase Plan.

134. Plaintiffs' expert, Mr. Reilly, had no opinion of the value of the shares that were returned to Nanovation in connection with either the Joseph Separation Agreement or the Tatum Separation Agreement. (3/23/06 Tr. at 64 (Reilly)).

Bratter, Carr and Davidson Note Repayment Agreements

135. In February, 2001, Nanovation engaged Salomon Smith Barney to advise the company on Nanovation's proposed Series C offering, through which Nanovation sought to raise $75 million.

136. Nanovation needed the $75 million in capital it planned to raise through the Series C in order to develop its products. Without those funds, the company was not likely to survive.

137. Salomon Smith Barney indicated that Nanovation's loans to managers and directors (specifically Bratter, Carr and Davidson) might affect its ability to raise money during the Series C, so their advice was to retire these loans.

138. Following Salomon Smith Barney's advice, Nanovation formed a "Notes Committee" on February 8, 2001 to address the issue.

139. The Notes Committee, and ultimately Nanovation's Board of Directors, chose to follow Salomon Smith Barney's advice to retire the loans to Bratter, Carr and Davidson as Salomon Smith Barney was believed to be an expert in the type of fundraising that Nanovation was trying to accomplish through the Series C offering.

140. However, Nanovation could not force Bratter, Carr and Davidson to give up their stock. According to the terms of the loans made by Nanovation to Bratter, Carr and Davidson, the notes were neither mature nor in default. (Exs. 115, 118, 123, 124, 1062 at N052179; 3/23/06 Tr. at 227-28 (Carr); (2/28/05 Dorman Dep. at 117-118 ("One thing we can't forget that it wasn't just our number to choose and tell the other party what they were going to get, because this was an arm's length, negotiated transaction. It wasn't and couldn't be forced upon the note holders."), 2/16/05 Dorman Dep. at 201-202; 2/28/05 Dorman Dep. at 117-118; 3/8/05 Gitten Dep. at 109-110, 177, 212, 213, 217-218; 3/8/05 Gitten Dep. at 212-213; 3/15/05 Chaney Dep. at 190, 319

("They had every right to tell us to go pound salt."); 4/5/05 Davidson Dep. at 37-39, 8385, 88; 4/12/05 Barney Dep. at 155-156; 5/4/05 Bjorklund Dep. at 174 ("We had no legal leverage to force them to do this."), 423; 6/29/05 Barney Dep. at 478 ("Contractually we couldn't do it, so we were depending on their goodwill and hoped that they would see that what they were doing was good for the good of the company and would help us get down the road and get the money that we needed."), 482 (Nanovation's counsel advised that the company had no right to cancel the Bratter, Carr and Davidson Notes); 6/29/05 Bjorklund Dep. at 423; 3/23/06 Tr. at 227-28 (Carr) (Bratter, Carr and Davidson were under no legal obligation to repay their notes and were essentially doing the company a favor to increase the likelihood of success of the Series C offering); Plaintiff's Responses to Requests to Admit, Nos. 186-189, 192-195).

141. Bratter, Carr and Davidson understood that they were not legally required to repay their notes prior to January 7, 2005. They further expected by that date that Nanovation would have engaged in an IPO in which its shares would trade publicly at prices in excess of $15 per share.

142. To get rid of its loans to officers and directors, the Notes Committee decided that Bratter, Carr and Davidson could repay their notes with a combination of shares, cash in the form of accrued compensation, and options.

143. As was the case with Tatum and Joseph, obtaining cash from Bratter, Carr and Davidson in the repayment of these Notes was simply not a priority for Nanovation. Dr. Bjorklund testified:

> I was in general agreement with the idea that this was a cashless exercise of options, that if we took back the stock at the same price that it was lent out at -- and due to the fact that the stock went out, the stock came back, no money left Nanovation's treasury ever, okay, I'm not an accountant, but to my common sense way of looking at things this seemed to be a

> reasonable thing to do in order to move -- and we had to do this in order to move forward to raise the $75 million.
>
> I thought it was much more important for the loans to be taken off the books so that we could go forward to raising the very large amount of money, the $75 million, in the Series C, than it was to have them repay those loans in cash. Furthermore, I thought it would have been very difficult to get them to do that because the loans weren't due yet.
>
> (6/29/05 Bjorklund Dep. at 425-26, 488).

144. When confronted with the proposal that they return the shares they acquired in the cashless exercise of options transaction, Bratter, Carr and Davidson were all reluctant to do so. (Ex. 544; 360; 1/27/05 Bratter Dep. at 115; 3/8/05 Gitten Dep. at 79-81, 180-181, 213-218 (Carr "obviously was upset with the deal."); 3/15/05 Chaney Dep. at 85 (Bratter, Carr, Davidson – "did not want to do anything other than hold onto their loans."); 4/5/05 Davidson Dep. at 88 ("I was upset that they were asking me to do this in the first instance."), 363-364 (Davidson incurred $80,000 in tax liability resulting from his Note Repayment Agreement. -- "I had done what they asked and then I did what they asked again, and the result was, I had to pay a lot of money."); 5/4/05 Bjorklund Dep. at 173-174; 6/29/05 Barney Dep. at 478; 3/23/06 Tr. at 231-32 (Carr); 3/31/06 Tr. at 24 (Ofenloch)). Indeed, Davidson expressed his displeasure at repaying his Notes with stock valued at $10 per share by sarcastically ending an e-mail on the subject with the words, "What a bargain." (Ex. 360).

145. Despite their reluctance to repay their loans at a loss of $5 per share and four years early, Bratter, Carr and Davidson each felt it was in Nanovation's best interest if they agreed to repay the notes so as to maximize the likelihood of a successful Series C Preferred Stock Offering.

146. Carr and Nanovation entered into a note repayment agreement dated March 1, 2001 (the "Carr Note Repayment Agreement"). (Exhibit 1074; 3/23/06 Tr. at 163 (Carr)). With

interest, Carr's total obligation as of March 1, 2001 was $2,654,798. Pursuant to the terms of the Carr Note Repayment Agreement, Carr fully repaid the Carr Notes, with interest, by tendering 265,480 shares of Nanovation stock at a value of $10 per share.

147. Carr returned 118,110 more shares than he received in the cashless exercise of options (265,480 - 147,370). He was required to return more shares than he received primarily because he exercised options on January 7, 2000 at $15 per share, but returned shares on March 14, 2001 valued at $10 per share.

148. At that time, Carr owned enough Nanovation stock to completely repay the Carr Notes with Nanovation stock and stock options, even if the stock was valued as low as $5.64 per share.

149. Davidson entered into a note repayment agreement dated March 1, 2001 (the "Davidson Note Repayment Agreement"). (Ex. 1083; 4/5/05 Davidson Dep. at 84-85). Pursuant to the terms of the Davidson Note Repayment Agreement, Davidson repaid the Davidson Notes by tendering 230,031 shares of Nanovation stock at a value of $10 per share, 38,451 stock options with a strike price of $1 per share (which were valued at $9 per option), and $22,750 in cash.

150. At the time Davidson entered into the Davidson Note Repayment Agreement, he owned a total of 278,427 shares of Nanovation common stock and 100,000 options to purchase Nanovation stock at $1 per share. Accordingly, Davidson could have completely repaid the Davidson Notes with Nanovation stock and stock options even if the stock was valued as low as $7.32 per share.

151. Bratter entered into a note repayment agreement dated March 1, 2001 (the "Bratter Note Repayment Agreement"). (Exs. 561, 1065). With interest, Mr. Bratter's total obligation as of March 1, 2001 was $2,436,143. Pursuant to the terms of the Bratter Note

Repayment Agreement, Bratter repaid the Bratter Notes by tendering 201,031 shares of Nanovation stock at a value of $10 per share, 44,870 stock options with a strike price of $1 per share (which were valued at $9 per option), and $22,000 in cash.

152. At the time Bratter entered into the Bratter Note Repayment Agreement, he owned a total of 201,031 shares of Nanovation common stock and 150,000 options to purchase Nanovation stock at $1 per share. Accordingly, Bratter could have completely repaid the Bratter Notes with Nanovation stock and stock options even if the stock was valued as low as $7.37 per share.

153. The Board did not consider KPMG's September 30 Valuation in connection with the Bratter, Carr and Davidson Note Repayment Agreements.

154. The Plaintiff's expert, Mr. Reilly, offered no opinion of the value of the common stock returned to Nanovation as part of the Bratter, Carr and Davidson Note Repayment Agreements. (3/23/06 Tr. at 65 (Reilly)).

155. The Board received consideration for the Bratter, Carr and Davidson Note Repayment Agreements in addition to the Nanovation common stock, options and cash that it received. The Board believed that it needed to follow Salomon's advice in order to support the likelihood of successfully obtaining another $75 million in investment that was believed essential to Nanovation's future.

156. The Board legitimately felt that because the Company had not parted with any cash in the Cashless Exercise of Options transactions, receiving the shares back and "unwinding" the transaction was acceptable, regardless of the actual value of the shares in March of 2001.

157. In addition to unwinding the insider loans pursuant to advice of its investment bankers, Nanovation's bylaws required a majority of its shareholders to approve the issuance of more shares for the Series C offering.

158. A significant shareholder, Stamford International, voted against the issuance of the additional shares needed for the Series C and began to offer other proposals and threaten litigation. Stamford's refusal to consent to the Series C triggered Nanovation's bankruptcy filing.

KPMG September 30 Valuation

159. KPMG began its work in connection with the September 30 Valuation shortly after receiving the signed Engagement Letter. (Ex. 282).

160. Hunt Jackson of KPMG sent a standard document request list to Nanovation on September 19, 2000. The Plaintiffs' expert witness, Robert Reilly, has no criticism of KPMG's investigation and gathering of necessary information to perform its September 30 Valuation. No witness testified, and no other evidence shows, that relevant documents or information existed that KPMG failed to request or that Nanovation failed to provide to KPMG.

161. KPMG utilized generally accepted valuation approaches and techniques, together with information supplied by Nanovation management, to estimate the fair market value of Nanovation's common stock.

Discounted Cash Flow Analysis

162. A discounted cash flow ("DCF") analysis, which estimates the value of a company by looking at its anticipated future revenues and applying an appropriate discount rate, is a generally accepted valuation practice.

163. KPMG's DCF analysis of Nanovation indicated a fair market value of Nanovation of $153,000,000. (Ex. 298 at N000765-N000766).

164. KPMG trial expert Mr. Sherwin's DCF analysis of Nanovation indicated a fair market value of Nanovation of $182,000,000. (3/28/06 Tr. at 67-68 (Sherwin)).

165. Mr. Reilly's DCF analysis of Nanovation indicated a fair market value of Nanovation of $23,890,000. (3/22/06 Tr. at 95-96 (Reilly)).

166. All three analysts - KPMG, Reilly and Sherwin - accept management projections of growth for the period 2001, 2002 and 2003.

167. For the years after 2003, the analysts begin to use different growth rates. (Ex. 298 at N000766; 3/24/06 Tr. at 94-95 (Sherwin)). Each side acknowledges that the other's growth rates during the discrete period are within the bounds of generally accepted valuation practice. (3/22/06 Tr. at 245-46 (Reilly)). All three analysts have accepted Nanovation management's projection of supernormal growth for at least the discrete period and some time thereafter. (3/21/06 Tr. at 190 (Reilly); 3/24/06 Tr. at 93-97 (Sherwin)).

168. All three analysts (KPMG, Sherwin and Reilly) utilize the same discount rate of 24% in their discounted cash flow analyses. Mr. Reilly has no criticism of KPMG's use of a 24% discount rate. (3/22/06 Tr. at 253 (Reilly)). Therefore, whether or not Mr. Reilly agrees with KPMG's assumptions with regard to the computation of the discount rate, the use of 24% did not result in any overvaluation or undervaluation of Nanovation. (3/22/06 Tr. at 253-54 (Reilly); 3/24/06 Tr. at 91-92 (Sherwin)).

169. There were other differences of opinion between KPMG, Reilly and Sherwin. Some of these differences of opinion resulted in KPMG's indicated value of Nanovation being higher than the value indicated by Reilly and Sherwin, others related in the value being lower. None of these differences were significant, however. Plaintiff emphasized KPMG's "errors," such

as the inclusion of an NOL carryforward in the DCF analysis, but this "error" and others had negligible impact on the ultimate conclusion of value. Specifically:

a. Changing KPMG's treatment of the income tax effect on Nanovation's cash flow of its net operating losses would have reduced KPMG's overall value of a share of Nanovation stock by less than 10 cents. (3/24/06 Tr. at 71-74 (Sherwin)).

b. KPMG's decision to assume equal depreciation and capital expenditures in its DCF analysis rather than management projections resulted in KPMG undervaluing Nanovation by $11,570,000. (3/24/06 Tr. at 74-75 (Sherwin)).

c. KPMG's assumption that no additional working capital would be required in the terminal year of its DCF analysis resulted in an overestimate of value by $26.8 million. (3/24/06 Tr. at 78 (Sherwin)).

d. KPMG's failure to include "Other Income" in its DCF analysis resulted in KPMG undervaluing Nanovation by $18.4 million. (3/24/06 Tr. at 78-81 (Sherwin)).

170. In sum, there were four areas of the September 30 Valuation that Reilly criticized that Sherwin agreed with. Of the four, two tended to result in a slightly higher value and two tended to result in a slightly lower value. Overall, none had a material impact on value, however.

171. Despite Plaintiffs' argument that if a company were to literally grow at 15% per year perpetually it would eventually exceed the entire U.S. economy, a perpetual growth rate is not intended to be a literal representation of how the analyst expects the subject company to actually grow in the future. (3/22/06 Tr. at 248 (Reilly); 3/24/06 Tr. at 114-15, 133 (Sherwin); 3/29/06 Tr. at 54 (Donnalley); 3/30/06 Tr. at 66-67 (Sherwin)).

172. A perpetual growth rate is intended to be an analytical tool designed to compensate for the inability of the analyst to gradually reduce growth over a period of years beyond the discrete period in the DCF analysis. (3/22/06 Tr. at 249-50 (Reilly); 3/24/06 Tr. at 115 (Sherwin); 3/29/06 Tr. at 54-55 (Donnalley)).

173. The choice of a long term growth rate is frequently a "battleground in a valuation related litigation." (3/31/06 Tr. at 74 (Reilly)). "There's a lot of controversy" about appropriate growth rates in valuation litigation. (3/31/06 Tr. at 74 (Reilly)).

174. Use of a 15% perpetual growth rate in KPMG's and Sherwin's DCF analysis accounts for the only material difference in the indicated fair market value of Nanovation among their three DCF analyses. (3/22/06 Tr. at 248 (Reilly) ("We're really not materially different from each other during the discrete period."); 3/24/06 Tr. at 61, 90 (Sherwin) (perpetual growth rates account for "the biggest part of the difference.").

175. In Reilly's DCF analysis, Reilly reduced growth from 84% in 2003 to 50% in 2004 to 45% in 2005 to 15% in his terminal year (2006) and then all the way to 5% in every year thereafter perpetually. Reilly agreed this is not a realistic growth pattern. (3/22/06 Tr. at 249 (Reilly)).

176. Reilly dropped the growth rate from 15% in the terminal year (2006) to 5% thereafter notwithstanding his acknowledgement that Nanovation's management did not expect the photonics industry to really "catch on" until 2005 or 2006. (Reilly, 3/21/2006 Tr. at 123). Reilly accepted management's projections of rapid growth between 2001 and 2003. Thus, his estimate that Nanovation would grow at only 5% each year after 2006 is inconsistent with management's further projection that the photonics industry would "catch on" in 2005 or 2006. At a time when Reilly acknowledged that management expected industry growth to skyrocket, he predicted Nanovation's growth would decline.

177. Reilly also testified that it would be reasonable to assume a 15% growth rate for "another five years or so" after the discrete period. (3/21/06 Tr. at 194 (Reilly)). Reilly also testified that his research revealed studies of industry growth for Nanovation's industry that

concluded growth for companies in that industry would likely be between 30% and 15% as many as eight years into the future. (3/22/06 Tr. at 77 (Reilly)).

178. Reilly testified that ideally the analyst would want to reduce growth by perhaps 1% per year from the terminal year to the perpetual growth rate, in order to make the growth curve smoother and more realistic. (3/22/06 Tr. at 250-51 (Reilly)). Reilly's DCF analysis does not model this pattern. (3/24/06 Tr. at 116-21 (Sherwin)).

179. Sherwin testified that KPMG's use of a 15% perpetual growth rate essentially replicated a longer discrete period with a more smoothly sloping growth curve - the kind that Reilly testified would be ideal. Sherwin drew a graph in which he illustrated that a drop of growth from 45% in 2006 to 15% perpetually (as in KPMG's DCF analysis) resulted in a value that was roughly the same as the value that would be derived if he were to follow Reilly's ideal situation of gradually decreasing growth to a sustainable perpetual rate. (3/24/06 Tr. at 102-07, 133-40 (Sherwin); 3/30/06 Tr. at 67-69 (Sherwin)).

180. In Sherwin's illustration, the "dotted line" (i.e., Reilly's "ideal" curve) represented a longer discrete period, in which the earlier years have a much greater influence on the ultimate indication of value than the later years. (3/24/06 Tr. at 104-21, 133-40 (Sherwin); 3/30/06 Tr. at 67-69 (Sherwin)).

181. In a DCF analysis, after about 20 years the growth rate no longer has any significant impact on value. (3/23/06 Tr. at 113 (Sherwin); 3/30/06 Tr. at 69 (Sherwin)). Sherwin's analysis is also corroborated by common sense. Few investors value a company based on a compounded growth projection that exceeds twenty years. Investors will focus on near term growth to apply an overall valuation to the company's stock. It is less important to a stockholder what a company will do twenty years from now than what it will do in a shorter time frame.

Present value analysis also discounts any growth after twenty years or so. This is why the trustee's big theme that KPMG's selection of a growth rate of 15% will ultimately compound into a value that exceeds the gross national product is naïve and ignores present value principles of the discounted cash flow method.

182. Using a higher than average perpetual growth rate between the terminal year and approximately 20 years out from the valuation date is simply a tool that allows the analyst to compensate for the inability to use a longer discrete period in which growth is more slowly sloped down. (3/24/06 Tr. at 113 (Sherwin); See generally 3/24/06 Tr. at 100-21, 133-40 (Sherwin); 3/30/06 Tr. at 67-69 (Sherwin)). Reilly agreed that sometimes valuation consultants use a higher perpetual growth rate as an analytical tool to compensate for their inability to practically show a long smooth declining growth curve over a long discrete period. (3/22/06 Tr. at 251 (Reilly)).

183. Sherwin also demonstrated the importance of the smooth sloping down of the growth rates by performing an analysis in which he utilized Reilly's discrete period but extended it by decreasing smoothly from the growth in the final year of the discrete period (40%) down to the 5% perpetual growth rate Reilly testified was reasonable. (3/24/06 Tr. at 105-117, 136-40 (Sherwin)).

184. By dropping the growth at a more reasonable 5% per year from 40% to a 5% perpetual growth rate, an analyst would not obtain values very different from those obtained by KPMG in using a 6 year discrete period followed by a 15% perpetual growth rate. (3/24/06 Tr. at 105-117, 136-40 (Sherwin) ("there is really no difference between KPMG and this expanded Reilly version."); (3/24/06 Tr. at 111 (Sherwin)).

185. Sherwin double checked the reasonableness of his and KPMG's use of a 15% perpetual growth rate by looking at DCF analyses of comparable companies. The most mature company in the group Sherwin considered was PerkinElmer, which had a multiple of 23 for the pricing fundamental Business Enterprise Value ("BEV") to Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA"). (3/24/06 Tr. at 122-23 (Sherwin)). The multiple for BEV to EBITDA for Nanovation that would result if Nanovation were to grow as predicted by Reilly in his DCF analysis would be 4.4 or 5.26 depending on whether you look at the last year of the discrete period or his terminal year. (3/24/06 Tr. at 124 (Sherwin)). In other words, Reilly's predicted growth for Nanovation was inconsistent with - and far less than what even the most mature companies in Nanovation's industry were experiencing. (3/24/06 Tr. at 125-26 (Sherwin)).

186. Double checking the reasonableness of a perpetual growth rate by looking at growth in comparable but more mature companies is a generally accepted practice common in the valuation practice and regularly followed by KPMG. In contrast there was no evidence that Reilly made any effort to double check his perpetual growth rate against the actual growth rates experienced by more mature but comparable companies.

187. In this instance, KMPG's selection of a 15% growth rate was reasonable and consistent with generally accepted valuation practices.

Market Multiples Analysis

188. In addition to a discounted cash flow analysis, KPMG's September 30 Valuation also employed a market multiples analysis.

189. A market multiples approach takes a particular financial or operating statistic of a publicly traded company and establishes a ratio between that statistic and the value of the company. (3/24/06 Tr. at 168 (Sherwin)). For example, a valuation consultant can look at the value of a public company and compare that value to its revenues over the past 12 months or its estimated revenue for the next year. The ratio between those statistics and the company's known value is called a "multiple." Each type of ratio is known as a "pricing fundamental." By looking at a number of pricing fundamentals for a number of "comparable" companies, an analyst can choose an appropriate multiple to apply to his or her subject company. The analyst can then use the multiple he or she has selected by applying his or her judgment aided by examination of the multiples shown by comparable companies. The analyst takes the equivalent statistic for the subject company and by applying the ratio selected derives an indicated value for the subject company. (3/24/06 Tr. at 16670 (Sherwin)).

190. A market multiples analysis requires the valuation consultant to make three decisions. First, the consultant must identify publicly traded companies that are sufficiently comparable to the subject company to make them acceptable "guideline" companies. Second, the consultant must identify appropriate ratios, or "pricing fundamentals" from which a value of the subject company can be derived. Finally, the consultant must consider the ratios shown by the guideline companies and select a ratio that, in the consultant's judgment, is appropriate to apply to the subject company.

191. KPMG selected nine companies as sufficiently comparable to Nanovation to use in its market multiples approach. KPMG selected Avanex Corporation, Ciena Corporation, Corning, Inc., JDS Uniphase Corp., New Focus, Inc., ONI Systems, Inc., PerkinElmer, Inc., Sycamore Networks, Inc., and SDL, Inc.

192. Generally it is desirable to have more comparable companies in a market multiples analysis rather than fewer companies. (3/24/06 Tr. at 144 (Sherwin)). There are no objective standards that govern what attributes of various companies are sufficiently similar to the subject company for them to be included as a guideline or comparable company. (3/24/06 Tr. at 142-43 (Sherwin)). What companies to include and what companies to exclude is a matter of judgment. (3/24/06 Tr. at 143 (Sherwin)). Accordingly, it is not unusual for two different valuation consultants to come up with different companies in their list of comparables. (3/24/06 Tr. at 143-44 (Sherwin)).

193. In his analysis of the value of Nanovation, Reilly selected three of the same companies that KPMG considered in its analysis: Avanex Corporation, ONI Systems, Inc., and New Focus, Inc. (3/22/06 Tr. at 254-55 (Reilly)). Reilly chose one additional company that KPMG did not include in its analysis: Corvis Corporation. (3/21/06 Tr. at 214 (Reilly); 3/22/06 Tr. at 101-02 (Reilly)).

194. KPMG's selection of different guideline publicly traded companies than those Reilly selected led KPMG to a lower estimated value of Nanovation than it would have obtained had KPMG used only those companies Reilly felt were comparable. (3/22/06 Tr. at 272-73 (Reilly) ("That's exactly true.")).

195. Generally valuation consultants will select several different pricing fundamentals and give them varying weights depending upon the advantages and disadvantages of each. (3/22/06 Tr. at 256 (Reilly); 3/29/06 Tr. at 68-70 (Donnalley)).

196. KPMG selected four pricing fundamentals for each company to compare to Nanovation: Business Enterprise Value ("BEV") to total assets, BEV to Book BEV, BEV to revenue, and BEV to 2001 Estimated Revenue. (Ex. 298 at N000769; Ex. 299 at BE002189; 3/24/06 Tr. at 148, 170 (Sherwin)). This is a typical number of pricing fundamentals that valuation consultants generally use. (3/24/06 Tr. at 170 (Sherwin)).

197. KPMG assigned the following weights to the four pricing fundamentals it selected: BEV to total assets - 15%; BEV to Book BEV - 15%; BEV to revenue - 35%; BEV to 2001 Estimated Revenue - 35%.

198. Reilly agrees that BEV to total assets and BEV to Book BEV are commonly used but criticizes their use by KPMG on the basis that most of the value of Nanovation's assets was in its intellectual property, which is not listed on Nanovation's balance sheet. (3/21/06 Tr. at 228 (Reilly)).

199. Later, however, Reilly criticizes KPMG's conclusion of value based upon the market approach because that conclusion assumes that Nanovation had $530-$540 million in intellectual property. (3/21/06 Tr. at 234 (Reilly); 3/22/06 Tr. at 269 (Reilly)). Yet, Reilly made no effort to value Nanovation's intellectual property, and offers no opinion that such a value would be unreasonable. (3/22/06 Tr. at 269-70 (Reilly)). There is no support, therefore, for his opinion that it was unreasonable for KPMG to use BEV to total assets and BEV to Book BEV as pricing fundamentals given the absence of the value of Nanovation's intellectual property from its balance sheet.

200. Reilly selected only a single pricing fundamental to use in his market multiples analysis: BEV to Last Twelve Months' Revenue.

201. The use of only a single pricing fundamental in a market multiples analysis is not consistent with generally accepted valuation practices. (3/24/06 Tr. at 170 (Sherwin)).

202. The decision to include or not include a pricing fundamental that considers Nanovation's anticipated future revenues accounts for almost all of the difference in the indicated values Reilly and KPMG reached. (3/22/06 Tr. at 259-60 (Reilly); 3/24/06 Tr. at 185-86 (Sherwin)).

203. In the case of Nanovation, inclusion of a fundamental that takes future expected revenue into account results in an indicated value for Nanovation of roughly $2.5 billion, while failing to take that fundamental into account results in a value of roughly $130 million. (3/24/06 Tr. at 185-86 (Sherwin); 3/29/06 Tr. at 216-17 (Sherwin)).

204. The value investors placed on Nanovation in 2000 related to their anticipation of what revenues Nanovation would earn in the future - not their expectation that Nanovation's historical revenue would continue. (3/24/06 Tr. at 179-83 (Sherwin); 3/29/06 Tr. at 67 (Donnalley); 3/30/06 Tr. at 72-73 (Sherwin)). Reilly admits that this is true. (3/22/06 Tr. at 251-52, 258 (Reilly)).

205. The most relevant pricing fundamental for a development stage company in the year 2000 was a fundamental that took into account the relationship between a company's anticipated future revenues and its value. (3/24/06 Tr. at 185-88 (Sherwin)). For this reason, valuation consultants in 2000 typically included a fundamental such as BEV to Estimated Revenue in their market multiples approaches. (3/29/06 Tr. at 66 (Donnalley)).

206. Use of only a single pricing fundamental in a market multiples analysis is inconsistent with generally accepted practices, particularly in the case of a development stage company and even more particularly for a development stage company in September of 2000. (3/24/06 Tr. at 170 (Sherwin); 3/29/06 Tr. at 67-68 (Donnalley)).

207. Reilly not only applied only one pricing fundamental, he applied the lowest possible multiple indicated for that single fundamental. (3/22/06 Tr. at 263-64 (Reilly); 3/24/06 Tr. at 183 (Sherwin)). In other words, despite including several other companies in his "mix" of guideline companies, the multiple he selected was derived from only one of those companies and was not impacted by the multiples indicated by the others. Reilly used a multiple of "97" in applying the market multiples methodology, because that was the lowest indicated multiple of any of the companies he considered comparable. (3/22/06 Tr. at 108 (Reilly)). He did not choose this multiple because he believed the company with that ratio of past revenue to value was most comparable to Nanovation, but only because it was the lowest. (3/22/06 Tr. at 264 (Reilly)). By selecting the multiple indicated by New Focus and New Focus alone, Reilly effectively used only a single company in applying the market multiples analysis. (See 3/22/06 Tr. at 262-264 (Reilly)). Reilly admitted that this is "rare" in applying the market multiples approach.

208. In contrast, in the case of each pricing fundamental, KPMG selected a multiple that was higher than the low end of the range of multiples indicated by the nine guideline companies KPMG considered, but lower than either the mean or the median of the nine guideline companies. (Ex. 298 at N000769; Ex. 299 at BE002189; 3/24/06 Tr. at 148-49 (Sherwin)).

209. Ultimately the selection of an appropriate multiple is within the judgment of the valuation analyst, who is able to take into account the relative similarities and dissimilarities

between the guideline companies and the subject company when selecting the actual ratio to apply. (3/24/06 Tr. at 185-86 (Sherwin)).

210. If the analyst uses only a single company in determining an appropriate multiple, the results are inappropriately skewed. (3/24/06 Tr. at 61, 170 (Sherwin)).

211. The book that Reilly co-authored expressly states that a valuation consultant should be reluctant to use the market multiples approach if he can only find as few as two or three guideline companies. (3/22/06 Tr. at 260 (Reilly)).

212. KPMG's approach to market multiples was more consistent with generally accepted practices than was Reilly's.

Actual Market Transactions in Nanovation's Stock

213. In addition to its discounted cash flow analysis and market multiples methodology, KPMG also considered certain third-party transactions to be evidence of the fair market value of Nanovation's common stock. (Ex. 298 at N000765, Ex. 299 at BE02185; 3/29/06 Tr. at 71-72 (Donnalley) (Third party transactions "can be very compelling indications of value, specifically if they are negotiated third-party transactions with real investors in your subject company").

214. Reilly's refusal to take these transactions into account is a significant cause of the difference between his conclusion of value and KPMG's conclusion of value.

215. In its final draft of the Valuation Study, KPMG included two preferred stock transactions, which it weighted 15 and 35% respectively. (Ex. 299 at BE002185).

216. On August 28, 2000, Motorola purchased 666,666 shares of Nanovation Series A preferred stock at $15 per share for a total investment of $10 million.

217. Motorola conducted due diligence to inform itself of Nanovation's value before choosing to invest $10,000,000 in Nanovation, and came to the conclusion that Nanovation's preferred stock, as of August 28, 2000 was worth $15 per share. (3/31/06 Tr. at 8-10 (Ofenloch); 12/20/04 Garcia Dep. at 261; Ex. 1218 at MOT7202-MOT7207, MOT7214-MOT7216).

218. There is no evidence suggesting that the Motorola stock purchase at $15 per share was anything but an arms-length transaction between the two parties.

219. The fact that Motorola and Nanovation entered into the Series A Stock Purchase Agreement and the Joint Development Agreement during a similar time period does not establish that the price Motorola agreed to pay for the Series A preferred stock is not evidence of its fair market value.

220. Indeed, prior to Motorola's purchase of 666,666 shares of Nanovation Series A convertible preferred stock at $15 per share, numerous other investors purchased 1,935,928 shares of Nanovation Series A convertible preferred stock at $15 per share. There is no evidence that any of those purchasers entered into joint development agreements with Nanovation.

221. Moreover, on September 19, 2000, four groups of investors agreed to purchase 1,333,333 shares of Nanovation Series B preferred stock at $15 per share, for a total investment of $20 million. These four investor groups engaged in due diligence before choosing to invest $20 million in Nanovation, and came to the conclusion that Nanovation's preferred stock, as of September 19, 2000, was worth $15 per share. (Exs. 1012, 1247, 1248; 3/28/06 Tr. at 11 (Sherwin)).

222. The Series B investors also visited Nanovation's laboratories in Evanston, Illinois, toured the facility, interviewed the scientists working there and even hired their own consultants to advise them regarding the technology Nanovation was developing. Touring

Nanovation's laboratories, interviewing Nanovation's scientists and retaining their own consultant are all indications that the Series B investors had a reasonable level of knowledge about their investment.

223. At his deposition, Reilly admitted that the Series B convertible preferred stock of Nanovation had a fair market value as of September 19, 2000 of $15 per share. (3/22/06 Tr. at 18990 (Reilly)). At trial, Reilly said "I guess I've changed my mind." (3/22/06 Tr. at 190 (Reilly)). Reilly testified that in his opinion the fair market value of the Series B convertible preferred stock was $2.67 per share on September 30, 2000. (3/22/06 Tr. at 189 (Reilly)). Realizing that he could not possibly reconcile this value with a fair market value of $15 per share only 11 days earlier, Reilly "changed his mind" and now testified that "I guess I'm not sure that's true." (3/22/06 Tr. at 189 (Reilly)).

224. The terms and benefits of Nanovation's Series A and Series B convertible preferred stock were identical but for certain dates related to redemption. (3/24/06 Tr. at 229 (Sherwin)).

225. The Series A and Series B preferred stock had very limited benefits over Nanovation common stock. In its September 30 Valuation Study, KPMG recognized that there were differences between the Series A and Series B convertible preferred stock and Nanovation's common stock. (Ex. 298 at N000765 n.6; Ex. 299 at BE002185 n.6). KPMG expressed its belief that the value of the differences was not material, and that the preferred stock transactions were therefore good evidence of the value of Nanovation common stock. (Id.; 3/24/06 Tr. at 231 (Sherwin)). It wrote:

> KPMG Consulting recognizes that there are preferred and common shares of stock included in these third-party transactions. However, we feel that, due to the convertible nature of the preferred shares coupled with the lack of dividend payments and the extended length of time

until the activation of their redemption rights, the discount applied to obtain a FMV for the corresponding common shares would be immaterial.

(Ex. 298 at N000765; Ex. 299 at BE002185; 3/21/06 Tr. at 157-58 (Reilly)).

226. Nanovation's Series A and Series B preferred stock was "convertible" to common stock on a one to one basis, so shareholders could elect to convert their preferred shares to common shares at any time, thereby ensuring that they were never worse off than common shareholders. The preferred shareholders' shares would be automatically converted to common shares upon an initial public offering of Nanovation's shares. This benefit did not add any value to the preferred stock over the value of the common stock. Nanovation's Series A and Series B convertible preferred stock was essentially Nanovation common stock with some enhancements.

227. There is no difference between the right of Nanovation Series A and Series B preferred shareholders to receive dividends and the right of Nanovation common shareholders to receive dividends.

228. There is no difference in the voting rights of Nanovation Series A and Series B preferred shareholders and the voting rights of Nanovation common shareholders.

229. Pursuant to the terms of the Series A and Series B Stock Purchase Agreements, Motorola, and the four Series B investor groups collectively, each had the right to appoint an individual to the Nanovation Board of Directors. This right only existed up until the date of an IPO, however. As of August/September, 2000, Nanovation anticipated an IPO sometime in the next 18 - 24 months.

230. The Series A and Series B preferred stock had other benefits, such as a right of redemption, a liquidation preference, conversion rights, registration rights, and anti-dilution protection. The right of redemption in the Series A and Series B Convertible Preferred stock

allowed the shareholders to receive their $15 per share investment back after a period of 5 years. The liquidation preference provided that if Nanovation were ever liquidated, and the claims of all other creditors could be satisfied in full, the preferred shareholders would recover their investment before the common shareholders.

231. Sherwin testified that the convertible nature of the Series A and Series B convertible preferred stock, coupled with the right of redemption and right of liquidation was "like having a share of common, which if things go bad or you get to the end of the five and a half year period, instead of keeping your common shares, you can give it back to the company and get up to $15 back." (3/28/06 Tr. at 6 (Sherwin)).

232. The right of redemption associated with Nanovation's Series A and Series B convertible preferred stock is fundamentally the same thing as a "put" option, or an option to sell Nanovation common stock at $15 per share on a specified date in the future (the redemption date). (3/22/06 Tr. at 193-94 (Reilly); 3/28/06 Tr. at 5-6 (Sherwin)).

233. The anti-dilution feature of Nanovation's Series A and Series B convertible preferred stock prevented Nanovation from manipulating the number of common shares of the company in such a way as to deprive the preferred shareholders of the value of their shares. The anti-dilution feature ensures that the preferred shareholders are not disadvantaged in relation to the common shareholders. This feature does not offer any value over the value of a share of Nanovation common stock.

234. Another feature of Nanovation's Series A and Series B convertible preferred stock was the right to register the shares upon a successful public offering. Registration rights are rights to register shares so that they can be traded publicly, and do not add any value to the preferred shares over the common shares.

235. The additional rights accompanying Nanovation's Series A and B preferred stock were not so significant as to justify ignoring the preferred sales when fixing a value to Nanovation's common stock, as Reilly did. KPMG more appropriately considered the preferred sales of $15 a share as part of a weighted mix of factors in valuing the common stock at $9.20-9.50 a share. Given that the preferred paid no dividend, it is hard to see how Reilly could value the common at 15 *cents* so close in time to sales of preferred at 15 *dollars*.

236. A significant portion of the trial involved controversy over Sherwin's use of the Black-Scholes model and Monte Carlo simulation to determine the value of the right of redemption and liquidation preference that the Nanovation Series A and B preferred shareholders enjoyed. Once these amounts were determined, it was suggested that the value of Nanovation's common stock could be calculated by subtracting the value of these preferred rights from the sales price of the preferred stock.

237. Sherwin's application of Black-Scholes indicated a fair market value of Nanovation's common stock as of September 30, 2000 of $12.64 per share, assuming the preferred stock had a value of $15 per share.

238. When Nanovation's debt is added to the calculation (using a debt to equity ratio of 10%), the model indicates a fair market value of Nanovation's common stock of $14.46 per share as of September 30, 2000, assuming the preferred stock had a value of $15 per share. Essentially, use of the Black-Scholes option pricing model suggested that when the Series B investors purchased over $17 million of Nanovation preferred stock at $15 per share on September 19, 2000, approximately $14 per share represented the value of Nanovation common stock. This was only a few weeks prior to the date of KPMG's $9.20-9.50 valuation and Reilly's fifteen cents valuation.

239. In addition to the Black-Scholes model, Sherwin also utilized a Monte Carlo simulation to derive a value of Nanovation's common stock from the value of its preferred stock. A Monte Carlo simulation is a "richer model" in that it allows the analyst to "take more factors into account" than Black-Scholes A Monte Carlo simulation is a generally accepted statistical tool that begins with a large number of variables with a specified range for each variable and runs all of the various permutations or possible outcomes for those various variables.

240. Sherwin ran his Monte Carlo simulation related to the value of Nanovation's common stock as derived from the known value of its preferred stock 400,000 times. If the analyst assumes the preferred stock has a value of $15.21, then the output from the Monte Carlo simulation tells the analyst the common stock has a value of $14.22, the difference being the value of the features of the preferred stock. The output can also be read in reverse - if the analyst were to assume the common stock had a value of $9.50, then the preferred would have had a value of $10.22. Similarly, if the analyst were to assume that Nanovation's common stock was worth 16 cents on September 30, 2000, then the model indicates its preferred stock would have been worth 20-21 cents per share on that date.

241. Under this simulation, the actual preferred sales of $15 per share suggest that KPMG's September 30 valuation of $9.20-9.50 per share was more accurate than Reilly's fifteen cents a share.

242. Based on his Monte Carlo simulation, Sherwin concluded that if Nanovation's Series A convertible preferred stock had a fair market value of $15.21 per share on September 30, 2000, Nanovation's common stock had a fair market value of $14.22 on September 30, 2000.

243. Although Sherwin's use of these mathematical approaches to value common stock was novel, the court did not discern any flaws in the logic of employing these tools to corroborate that KPMG's valuation was more realistic than Reilly's.

244. The trustee's only argument against Sherwin's efforts to derive the value of the common from the preferred price was that it had not been done this way before. Nevertheless, at least Sherwin attempted to value the preferred rights. In contrast, Reilly made no attempt to separate the value of common from the value of the preferred. Incredibly, Reilly simply gave no weight to the Series B $15 transaction at all.

245. Pinpointing the exact mathematical value of the preferred rights is just not necessary to conclude that Reilly's valuation of fifteen cents for common is not as reasonable as KPMG's number, considering that the preferred sold for $15 and paid no dividend. Taking into account the relatively insignificant rights present in the Series A and B preferred, the court finds that KPMG's valuation of $9.20-9.50 for the common was much more in line with the value that the real world marketplace assigned to Nanovation stock than was Reilly's valuation.

246. Moreover, corroboration of KPMG's valuation can be found by looking to the market value of Stamford International, a publicly traded company, because Stamford's only asset was Nanovation common stock.

247. Stamford International was a Canadian company that was publicly traded in Canada on the Canadian Dealer Network, and in the United States in the NASDAQ pink sheets.

248. Stamford had no income and engaged in no business; it was merely a holding company through which the public invested in Nanovation.

249. Shares of Stamford had no value other than the value associated with owning an indirect interest in Nanovation.

250. Stamford owned approximately 39% of Nanovation's outstanding common stock, making it Nanovation's primary shareholder.

251. One can derive a value of Nanovation's common stock from the value of Stamford stock by using the ratio of Stamford shares to Nanovation shares.

252. Indeed, Nanovation's Board considered the value at which Stamford had been trading in setting the fair market value of Nanovation common stock.

253. Nanovation employees considered the prices at which Stamford was trading when they wanted to estimate the value of their shares of Nanovation common stock.

254. Trading in Stamford stock was halted in Canada in October, 2000, *after* KPMG's September 30 Valuation Study, while trading in Stamford stock was never halted in the United States.

255. Stamford traded every week day except holidays during 2000.

256. On September 26, 2000, 47,800 shares of Stamford were traded on the U.S. OTC market alone. During that week of September, 75,000 shares of Stamford traded on the U.S. OTC alone. Over the course of the entire year of 2000, the lowest daily trading volume in Stamford stock on the U.S. OTC market was 200 shares, and the highest daily trading volume was just over 400,000 shares.

257. During 2000, the biggest swing in price for Stamford during any 3 month period was a factor of about 1 to 5 (from prices in the low $40s to about $7).

258. Sherwin found larger price swings in the securities of companies like ONI Systems, which Reilly considered comparable to Nanovation.

259. The price of Stamford stock spiked in March, 2000. At that point in time, tech stocks and the NASDAQ were at their all time high. In addition, at this point in time Nanovation

was considering a possible $100 million investment by Metromedia Fiber. Nanovation was considering a $50 per share preferred stock offering in March, 2000. Shortly after it became known that neither the $50 per share offering nor the Metromedia Fiber deal would occur, the value of Stamford fell significantly.

260. The trend in the prices investors were willing to pay for Stamford stock corresponded almost exactly with the NASDAQ index in 2000.

261. The average price of Stamford's stock for the five days prior to September 30, 2000 was $5.71 a share on the Canadian Dealer Network and $5.13 on the United States over-the-counter market.

262. Stamford had a total of 27,600,000 shares of stock outstanding, and Stamford owned approximately 9,000,000 shares of Nanovation common stock.

263. Nanovation had a total of 23,026,000 shares of common stock outstanding.

264. Based upon the price of Stamford's stock as of September 30, 2000, the implied value of Nanovation's common stock was $17.52 in the Canadian exchange and $15.72 over the counter in the United States, averaging $16.62 per share.

265. Sherwin applied a discount for lack of marketability of 35% to this value. Sherwin did this to account for a potential lack of liquidity in Stamford stock and the fact that Stamford's sole asset - Nanovation common stock - was illiquid. Sherwin testified that he was being conservative by applying a discount for lack of marketability in his analysis of the value of Nanovation common stock as a derivative of the value of Stamford stock as evidenced by the public market.

266. When the value is adjusted to reflect the lack of marketability of Nanovation common stock, the implied value of Nanovation stock as of September 30, 2000 was $10.80 per share.

267. Reilly testified that the most recent public financial information about Stamford that was available in September, 2000 was two years old. Under cross-examination he admitted it was actually only one year old. In fact, that information was only nine months old (the most recent financial statements for Stamford were as of year end 1999 and the valuation at issue was performed as of September 30, 2000).

268. Reilly testified that he had heard some allegations of manipulation in Stamford stock. But he couldn't identify what the claims were, who made them, when they were made, or even where he had heard about them.

269. Sherwin found no evidence of any manipulation in Stamford stock.

270. Reilly testified that there were disparities in the prices at which Stamford stock traded in the United States and Canada. Sherwin found a correlation between those prices of .99.

271. Nothing in the definition of "fair market value" requires a transaction to occur in an "efficient" market in order to be a "fair market value" transaction.

272. If anything, the inefficiencies in the market for Stamford and the issues with regard to liquidity identified by Reilly served to lower the prices that investors were willing to pay for Stamford and thus decrease the value of Nanovation derived from the value of Stamford as established by the public market for Stamford shares.

273. Moreover, none of the valuation consultants involved in this case had ever seen a situation before in which a publicly traded company owned a 40% stake in a privately held company as its sole material asset. For this reason, there are no "generally accepted practices"

when it comes to how to use such a situation to determine the value of the privately held company.

274. Regardless of whether Stamford played any direct role in a valuation consultant's computation of an estimated value of Nanovation, data regarding how investors valued Stamford serves to corroborate or refute a conclusion of Nanovation's value based upon other methods, such as a discounted cash flow analysis, market multiples approach, or third-party transactions method.

275. Once again, this real world data suggests that KPMG's valuation was actually more accurate than Reilly's.

276. Actual transactions in a subject company's stock are the best evidence of the value of the subject company. Indeed, a valuation study is nothing more than an attempt to replicate what buyers and sellers would do in an actual transaction.

277. When a valuation analyst has evidence of actual transactions in the stock of the company he or she is valuing, he or she must consider those transactions. (3/24/06 Tr. at 202 (Sherwin); 3/28/06 Tr. at 77-78 (Sherwin)).

278. Individuals who owned Nanovation common stock could sell that stock, and people who wanted to buy Nanovation common stock could buy stock, by contacting brokers such as Pamela Millar and Michael Smorch.

279. John Ofenloch, who was responsible for investor relations at Nanovation, was unaware of any person who ever wanted to sell Nanovation common stock and was unable to find a buyer. Howard Gitten testified: "For a small privately held company, yes, I felt there was a significant number of transactions." (3/8/05 Gitten Dep. at 186-87).

280. In addition to the Series A and B preferred stock transactions at $15 per share within weeks of the September 30 Valuation Study, and the numerous public transactions in Stamford stock at prices indicating an implied value of Nanovation stock of $10.80 per share as of September 30, 2000, there were also dozens of individual transactions in Nanovation stock.

281. The parties have stipulated that between July, 2000 and November, 2000, at least 19,310 shares of Nanovation common stock traded hands at prices ranging between $15 per share and $25 per share. (Ex. 672).

282. The Nanovation stock register shows numerous transactions in Nanovation common stock. (Ex. 598). Reilly reviewed the stock register and was aware of the large volume of transactions in Nanovation common stock. In August, September and October, 2000 alone, 6,111 shares traded hands. (Ex. 672).

283. There is no evidence that any person bought or sold shares during those three months of 2000 for less than $25 per share (other than the Series A and Series B preferred stock transactions at $15 per share).

284. There is no evidence that any person bought or sold a single share of Nanovation common stock for less than $15 per share at any time in 2000 (other than pursuant to a pre-existing warrant or option).

285. As late as March, 2001, individuals were still paying $7 per share for Nanovation common stock. (Ex. 672).

286. The volume of information on these individual transactions also serves as corroborating evidence of a valuation conclusion, or, on the other hand, serves as a red flag that something in a valuation conclusion is amiss.

287. No reasonable valuation consultant would simply ignore these transactions and seek no further information about them if the consultant had concluded a value of 15 cents per share and actual transactions appeared to be occurring near the time of the valuation at $15-$25 per share. (3/30/06 Tr. at 65 (Sherwin)).

Sherwin's Valuation of Nanovation Stock

288. Unlike Reilly who totally ignored all the actual market transactions, KPMG's expert Sherwin reached a value for Nanovation by using more approaches, including actual market transactions in Nanovation and Stamford stock, option valuation techniques to extract the value of the common stock from preferred sales, as well as standard valuation methods, all weighted according to reliability.

289. Sherwin's adjusted discounted cash flow analysis of Nanovation as of September 30, 2000 indicated an enterprise value of $182 million for Nanovation as of that date. Sherwin's discounted cash flow analysis accepts those criticisms of KPMG's discounted cash flow analysis from Reilly that Sherwin agrees with, and includes additional assumptions that Sherwin testified were required. Sherwin gave this method a 50% weighting, thereby concluding a weighted valuation of the enterprise of Nanovation of $91 million.

290. Sherwin's market multiples approach resulted in a conclusion of business enterprise value for Nanovation of $1,180,283,739. Sherwin's market multiples approach takes into account Reilly's criticism that KPMG had included companies that were too mature to be considered comparable to Nanovation. Sherwin gave this method 50% weighting, thereby concluding a weighted valuation of the enterprise of Nanovation of $590,141,870.

291. Sherwin added the weighted valuations of Nanovation's business enterprise derived from his discounted cash flow analysis and his market multiples approach and concluded

a total valuation for the Nanovation business enterprise as of September 30, 2000 of $681,141,870.

292. Sherwin subtracted Nanovation's debt of $10,556,045 from the value of the business enterprise. Sherwin then added cash flow from option exercises of $32,756,917 to account for the fact that if the value of Nanovation's common stock exceeded the strike price of the options, the holders would elect to exercise them. Similarly, Sherwin added $3,855,107 to account for cash flow from the exercise of warrants for the same reason. By making these adjustments, Sherwin concluded a fair market value for the equity of Nanovation of $707,197,849 as of September 30, 2000.

293. Sherwin subtracted the value of Nanovation's preferred stock at $15 per share from the fair market value for the equity of Nanovation as of September 30, 2000, leaving a fair market value of the common equity of Nanovation as of September 30, 2000 of $647,197,849.

294. By dividing the fair market value of the common equity of Nanovation as of September 30, 2000 by the total number of fully diluted shares of Nanovation common stock of 33,414,612, Sherwin determines a value of $19.37 per share for Nanovation common stock as of September 30, 2000, before applying a discount for lack of marketability.

295. Sherwin applied a discount of 35% to the value of Nanovation's common stock as of September 30, 2000 to account for lack of marketability, resulting in a conclusion that Nanovation's common stock had a fair market value of $12.59 per share as of September 30, 2000. Sherwin then gave this indication of value an overall weighting of 50%, or $6.29 per share.

296. Sherwin next considered the results of his Black-Scholes and Monte Carlo analyses, and determined the value of Nanovation common stock as of September 30, 2000 to be

$14 per share as indicated by that work. Sherwin gave this indication of value an overall weighting of 25%, or $3.50 per share.

297. Sherwin next considered the value of Nanovation's common stock derived from the value of Stamford, which he had concluded was $10.80 per share. Sherwin gave this indication of value an overall weighting of 25%, or $2.70 per share.

298. Sherwin then added up the differing weighted per-share values he computed in his work and concluded that, as of September 30, 2000, Nanovation's common stock had a value of $12.50 per share.

299. Sherwin was conservative in his assumptions, which would lead to a lower valuation of Nanovation.

300. Despite his conservative approach, Sherwin's conclusion on value is higher than KPMG's final opinion that the fair market value of Nanovation common stock as of September 30, 2000 was $9.20 per share. (Ex. 299).

301. Indeed, no one from Nanovation ever had any concerns about KPMG's work for Nanovation.

302. Ofenloch, the officer in charge of investor relations at Nanovation, testified that if KPMG had concluded Nanovation's common stock was worth only 15 cents per share as of September 30, 2000, he would have been "shocked." He testified that he would not have considered such a valuation credible. Even at $9.20 per share, people at Nanovation were generally surprised by how low KPMG's valuation was.

KMPG's Valuation Reflected Management Input
But Reilly's Did Not

303. Valuation consultants commonly provide drafts of their work to their clients before finalizing that work. One reason they do this is to discuss their assumptions and the bases for their conclusions with company management and to change any incorrect or unreasonable assumptions.

304. KPMG had discussions with Nanovation's management about the draft September 30 Valuation before submitting the final number of $9.20 per share. Reilly did not have the benefit of discussions with Nanovation's management.

305. After gathering additional information from management, KPMG modified its draft valuation report as follows:

a. In its application of the market multiples methodology, KPMG used updated financial information about the guideline publicly traded companies it had selected, increasing the indicated fair market value of Nanovation's business enterprise from $404,200,000 to $473,900,000.

b. KPMG altered the weighting between its application of the discounted cash flow methodology and market multiples methodology from 50/50 to 40/60.

c. In the Recent Third Party Transactions section, KPMG dropped its inclusion of a $10 per share common stock transaction and increased the weight on the Series B Convertible Preferred Stock transaction from 25% to 35%.

d. KPMG increased the discount for lack of marketability from 10% to 20%. This effectively made the discount for lack of marketability 40%.

306. After providing a draft report and discussing it with management, there were a number of things KPMG did not change:

a. KPMG did not change any of the projections of future estimated revenue or any of the growth rates used in the discrete period of its discounted cash flow analysis.

b. KPMG did not change its assumption that depreciation expense would equal capital expenditures.

c. KPMG did not change its proposed perpetual growth rate.

d. KPMG did not change the guideline companies included in its market multiples analysis.

e. KPMG did not change the selected pricing fundamentals or the weight it placed upon those fundamentals.

f. KPMG did not change the selection of a multiple from within each pricing fundamental.

307. Reilly did not have the same opportunity KPMG had to discuss with Nanovation's management its preliminary determinations regarding projected growth rates, perpetual growth rate, assumptions regarding depreciation and capital expenditures, comparability of various guideline publicly traded companies, appropriate pricing fundamentals or appropriate multiples from within each fundamental.

Reilly Was Not Asked to Value Nanovation's Stock at the Time of the Tax Note and Cashless Option Transactions

308. Reilly was generally aware of KPMG's November 18, 1999 Valuation Study, the January 7, 2000 Valuation Study, and the March 30, 2000 Valuation Study.

309. Reilly was not asked to offer opinions of the quality of KPMG's work on the earlier valuations, nor was he asked to perform his own valuation of Nanovation's common stock as of those earlier dates.

310. Had Reilly analyzed KPMG's work on the January 7, 2000 Valuation, his criticisms would have been similar - or identical - to his criticisms of KPMG's work on the September 30 Valuation. The January 7, 2000 Valuation uses the same three critical methods and assumptions that Reilly criticizes in the September 30 Valuation: (1) The use of a 15% perpetual growth rate in the discounted cash flow analysis; (2) The use of a pricing fundamental in the

market multiples approach that compares BEV/MVIC[4] to future estimated revenue; and (3) Consideration of preferred stock transactions.

311. Had Reilly performed his own valuation of Nanovation's common stock as of January 7, 2000, he would have utilized the same methods and assumptions he utilized in performing his later valuations. Had Reilly performed his own valuation of Nanovation's common stock as of January 7, 2000, he would have estimated a fair market value for Nanovation common stock of less than $1 per share.

312. Reilly agrees that if KPMG had performed a valuation in January of 2000 that indicated Nanovation's common stock had a value in the range of 15 cents per share, the cashless exercise of options transactions would not likely have occurred. Moreover, as the court concluded earlier, there would be no need for the Tax Notes if the value of options given as compensation were virtually worthless.

III. LEGAL ANALYSIS

A. Jurisdiction and Venue

Bankruptcy jurisdiction exists over claims that either arise under title 11 or that arise in or are "related to" a case under title 11. 28 U.S.C. § 1334(b). This proceeding does not arise *under* title 11 because the claims are essentially state law claims as opposed to claims "created or determined by a statutory provision of title 11." Wood v. Wood, 825 F. 2nd 90, 96 (5th Cir. 1987). Moreover, the claims do not concern "administrative matters that arise *only* in bankruptcy cases." Id. at 97 (internal quotation omitted) (emphasis in original). However, since resolution of these claims plainly affects the amount of property available for distribution to creditors, this court has

[4] Market Value of Invested Capital

jurisdiction over them as "related to" Nanovation's bankruptcy. In re FedPak Sys., Inc., 80 F.3d 207, 213-214 (7th Cir. 1996). Jurisdiction therefore exists under 28 U.S.C. §§ 157 and 1334. Venue is proper under 28 U.S.C. § 1409(a), since Nanovation's bankruptcy case is pending before this court.

B. **Gross Negligence**

KPMG argues that its liability is limited to gross negligence based on an indemnification clause in the September 30 Valuation Report and in "Exhibit A" to the August 30 engagement letter preceding the Valuation Report. The trustee counters that no Exhibit A was attached to any copies of the August 30 letter, even though the letter itself referred to an Exhibit A. Standing alone, KPMG's unilateral declaration of indemnification in its actual valuation report would probably not bind Nanovation. The evidence needs to show that Nanovation *agreed* to indemnify KPMG except for gross negligence. While it appears likely that the August 30 engagement letter included an "Exhibit A" at one time, the court need not guess whether that exhibit contained an indemnification clause similar or identical to the ones included in prior engagement letter agreements between KPMG and Nanovation. This is because the trustee did not establish *any* liability on KPMG's part, so there is no need to decide whether KPMG's liability is limited in any fashion.

C. The Trustee May Assert Either a Contract or Professional Malpractice (Negligence) Claim Against KPMG

The trustee's Amended Complaint alleges liability under breach of contract (Count I), professional negligence (Count II) and aiding and abetting the directors' and officers' alleged breach of fiduciary duties (Count III). There is a preliminary issue of whether the trustee may bring both a breach of contract and negligence claim. In 1982, the Supreme Court of Illinois

decided Moorman Manufacturing Co. v. National Tank Co., 435 N.E. 2nd 443 (Ill. 1982). In that opinion, the court set forth what has become known in Illinois as the Moorman Doctrine: When only economic loss is incurred, the plaintiff may only raise contract theories even if the defendant's alleged conduct constituted a tort as well as a breach of contract. See Valenti v. Qualex, Inc., 970 F. 2nd 363, 369 (7th Cir. 1992); Bethlehem Steel Corp. v. Chicago Eastern Corp., 863 F. 2nd 508, 523 (7th Cir. 1988).

However, Moorman confirmed that there are two exceptions to this doctrine. "[E]conomic loss is recoverable where one intentionally makes false representations . . . and where one who is in the business of supplying information for the guidance of others in their business transactions makes negligent representations." 435 N.E. 2nd at 452 (citations omitted). Later courts have clarified that the second exception encompasses malpractice actions against attorneys, Collins v. Reynard, 607 N.E. 2nd 1185 (Ill. 1992), accountants, Congregation of the Passion v. Touche Ross & Co., 636 N.E. 2nd 503 (Ill.), cert. denied, 513 U.S. 947 (1994), and business consultants, Gallagher Corp. v. Mass. Mutual Life Ins. Co., 940 F. Supp. 176 (N.D. Ill. 1996), but not insurance consultants, Bulk Service Corp. v. Buick, 561 N.E. 2nd 120 (Ill. App. Ct. 1990), title insurers, First Midwest Bank, N.A. v. Stewart Title Guar. Co., 843 N.E.2d 327 (Ill. 2006), or (usually) architects and engineers, Tolan and Son, Inc. v. KLLM Architects, Inc., 719 N.E. 2nd 288 (Ill. App. Ct. 1999).

The question, therefore, is whether "the services [KPMG] provides are more akin to those of an attorney or accountant than those of an architect . . .". Gallagher, 940 F. Supp. at 180. According to Congregation of the Passion, the court should consider (1) whether KPMG's work product was tangible or intangible; and (2) whether Nanovation expected that KPMG would be

required to utilize its knowledge and expertise "independent of [its] contractual obligations." 636 N.E. 2nd at 515.

Although KPMG's fourth affirmative defense states that it is not a professional, the evidence introduced at trial tends to show that it is.[5] The work KPMG performed for Nanovation in valuing the common stock was of the intangible sort performed by attorneys and accountants, and KPMG was required to exercise its own independent judgment in reaching its conclusions. The court finds that the business professional exception to the Moorman doctrine applies here.

Notwithstanding this finding, the trustee is limited to seeking relief only under one of his three counts if they all arise from the same operative facts:

> In Illinois, a plaintiff may maintain a complaint against a lawyer for malpractice in either tort or contract, and recovery may be sought in the alternative. See Collins v. Reynard, 154 Ill. 2d 48, 50, 180 Ill. Dec. 672, 607 N.E.2d 1185 (1993); Pavilion Hotel Corp. v. Koch, 2000 U.S. Dist. LEXIS 378, 2000 WL 51817 (N.D. Ill. Jan. 14, 2000) (Pavilion). However, if a breach of fiduciary duty claim is based on the same operative facts as a legal malpractice claim, and results in the same injury, the latter claim should be dismissed as duplicative. *See* Fabricare Equip. Credit Corp. v. Bell, Boyd & Lloyd, 328 Ill. App. 3d 784, 791, 263 Ill. Dec. 19, 767 N.E.2d 470 (2002); McDermott, Will & Emery v. Ogle, 2001 WL 145696 (N.D. Ill. Nov. 15, 2001).

Reiff v. Much Shelist Freed Denenberg, Ament & Rubenstein, P.C., 2003 WL 22424725, *1 (N.D. Ill. Oct. 23, 2003).

Counts I and II both rely on KPMG's alleged failure to use its best professional judgment in arriving at the $9.20 valuation of Nanovation stock, KPMG's failure to use proper professional accounting, auditing, financial and valuation methods, and KPMG's failure to either give effect to certain information or otherwise ignore information that was made known to it. If the court finds that the trustee neglected to prove any of these allegations by a substantial

[5] KPMG did not present any evidence on this affirmative defense, nor did it argue it was not a professional in its post trial brief.

preponderance of the evidence, there is little need to discuss the legal differences between the contract and negligence elements in Counts I and II.

D. The Evidence and Trustee's Admissions Confirm That Count III's Aiding and Abetting a Breach of Fiduciary Duty Need Not Be Considered

Although the Seventh Circuit and lower federal courts have held that Illinois does not recognize the tort of aiding and abetting a breach of fiduciary duty as a separate tort, see Eastern Trading Co. v. Refco, Inc., 229 F. 3rd 617, 623 (7th Cir. 2000); Cenco, Inc. v. Seidman & Seidman, 686 F. 2nd 449, 452 (7th Cir. 1982) ("There is no tort of aiding and abetting under Illinois law or, so far as we know, the law of any other state. . ."); Koutsoubos v. Casanave, 816 F. Supp. 472, 475 (N.D. Ill. 1993); Wieboldt Stores, Inc. v. Schottenstein, 1989 WL 99545 (N.D. Ill. Aug. 23, 1989), the law has changed in recent years.

"[C]ases subsequent to Eastern Trading have recognized a separate cause of action for aiding and abetting." Colman v. Greenfield, 2005 WL 2592538, *2 (N.D. Ill. Oct. 11, 2005). See Hefferman v. Bass, 467 F. 3rd 596, 601 (7th Cir. 2006) ("What these opinions say is that aiding and abetting is a theory for holding the person who aids and abets liable for the tort itself."); Thornwood, Inc. v. Jenner & Block, 799 N.E. 2nd 756 (Ill. App. Ct. 2003); Shapo v. Engle, 1999 WL 1045086, *19 (N.D. Ill. Nov. 12, 1999) ("Although it seems that at one point Illinois did not recognize a tort of aiding and abetting a breach of fiduciary duty, it appears that such a claim is now viable."); In re Parmalat Securities Litigation, 377 F. Supp. 2nd 390 (S.D.N.Y. 2005). See also Reuben H. Donnelley Corp. v. Brauer, 655 N.E. 2nd 1162, 1170 (Ill. App. Ct. 1995).

The trustee states in his post-trial brief that his aiding and abetting claim has been "brought in the event KPMG contends, as indicated by its Affirmative Defenses, that

Nanovation's Directors breached their fiduciary duties by releasing one or more of the Insider Loans." Trustee's Post-Trial Brief at 36. "Under Illinois law, to state a claim for aiding and abetting, one must allege (1) the party whom the defendant aids performed a wrongful act causing an injury, (2) the defendant was aware of his role when he provided the assistance, and (3) the defendant knowingly and substantially assisted the violation." Hefferman, 467 F. 3rd at 601. A breach of fiduciary duty by the directors, i.e., a wrongful act, is one element of the aiding and abetting claim against KPMG.

On the contrary, after hearing two weeks of testimony and studying the exhibits and KPMG's post-trial brief, the court is confident that KPMG is not contending that Nanovation's Directors breached their fiduciary duties:

> There is no evidence demonstrating that the Board breached its fiduciary duty to Nanovation. That issue will need to be resolved when Plaintiff's case against the D&Os is brought to trial, and Plaintiff cannot reasonably believe that it has already satisfied its burden of proof against the D&Os with respect to that case.

KPMG's Post-Trial Brief at 44.[6]

The trustee took the position in his post-trial brief that the burden of proof on this issue belonged to KPMG. The court is confounded by this position, since the issue is an element of Count III of the complaint, and the trustee is the plaintiff.

Nevertheless, there is no evidence before the court that supports the notion that any of the members of Nanovation's Board of Directors breached their fiduciary duties to Nanovation. No matter whether the trustee or KPMG bore the burden of proof, in two weeks of trial the court heard nothing to indicate that the directors breached their fiduciary duties. Moreover, Count III

[6] Affirmative Defense 10 in the Amended Answer hinted at a possible breach, but KPMG did not pursue this at trial.

arises from the same operative facts and injury alleged in Counts I and II and should be disregarded as duplicative. See Reiff, 2003 WL 22424725.

For all of these reasons, the court finds for KPMG on Count III of the complaint.

E. KPMG's September 30 Valuation Was Reasonable and Conducted in Accordance with Generally Accepted Valuation Practices

Both the breach of contract and professional negligence claims in Counts I and II hinge on whether KPMG's September 30 Valuation adhered to reasonable professional standards. Reilly acknowledges that valuation is not an exact science. (3/23/06 Tr. at 28 (Reilly)). He concedes that much of valuation practice is subject to judgments about which equally reasonable consultants can disagree. (3/22/06 Tr. at 28 (Reilly)). Both Sherwin and Reilly differed on a number of matters in this case. Valuation is as much an art as science and there is room for a difference of opinion on the decisions KPMG made in performing the September 30 Valuation. "The differences among the expert valuations in this case demonstrate the caution that is necessary in weighing expert valuations that zealously attempt 'to infuse a talismanic precision into an issue which should frankly be recognized as inherently imprecise'. . .". Estate of Hall v. C.I.R., 92 T.C. 312, 338 (1989), quoting Messing v. C.I.R., 48 T.C. 502, 512 (1967).

KPMG estimated Nanovation's common stock to be worth $9.20 per share on September 30, 2000. Sherwin asserts the stock was worth approximately $12.50 per share on September 30, while Reilly claims it was worth about 15 cents per share on that same date. These widely disparate values flow from the following decisions: (1) Whether to take into account evidence of actual market transactions in Nanovation stock; (2) The selection of an appropriate perpetual growth rate; and (3) Whether to use a pricing fundamental that accounts for Nanovation's future

prospects in estimating its value. The court finds that KPMG's decisions on these issues were more reasonable than Reilly's.

1. KPMG's Valuation Reasonably Relied on Preferred Stock Sales, and Was Corroborated by Other Market Transactions, While Reilly's Valuation Unreasonably Ignored All Market Evidence

a) The Preferred Stock Sales

On August 28, 2000, Nanovation sold 666,666 shares of Series A convertible preferred stock to Motorola at $15 per share. On September 19, 2000, Nanovation sold 1,161,765 shares of Series B convertible preferred stock to four separate institutional investors at $15 per share. KPMG's valuation took these transactions into account while Reilly ignored them, arguing that since the transactions were in preferred and not common stock, they were irrelevant. According to Reilly, the fundamental difference between preferred stock and common stock is voting rights and dividend preferences. However, these features were not present in the Series A and Series B convertible preferred stock. Also Nanovation's preferred shares were "convertible" on a 1 to 1 basis to common stock, so they were essentially common shares with some enhancements. Most of those enhancements were merely safeguards against the value of the preferred shares ever falling below the value of the common shares. KPMG recognized in its Valuation Study that there were differences between common stock and preferred stock. It wrote:

> KPMG Consulting recognizes that there are preferred and common shares of stock included in these third-party transactions. However, we feel that, due to the convertible nature of the preferred shares coupled with the lack of dividend payments and the extended length of time until the activation of their redemption rights, the discount applied to obtain a FMV for the corresponding common shares would be immaterial.

(Exhibit 298 at N000765; Exhibit 299 at BE002185).

Nanovation's Series A and B preferred stock included certain rights that made those shares slightly more valuable than Nanovation's common stock, although the court agrees with

KPMG and Sherwin that the difference in value between the two types of securities was not material. Preferred shareholders received a liquidation preference if sufficient assets existed to pay all of Nanovation's creditors, but those preferred shareholders were not entitled to any dividend. A dividend preference is usually a prominent feature of preferred stock, one that Reilly identified as a fundamental difference between preferred and common stock – yet Nanovation's preferred stock lacked this right.

Also, after approximately 5 years, preferred shareholders could return their shares to Nanovation and receive in return the amount of their original investment. This right of redemption is similar to a "put" option, according the shareholder the right to sell the shares back to the company at $15 per share on a certain date in the future. There are generally accepted mathematical models that permit an options trader to value the price of a put or call option if the value of the common stock, its volatility and other factors are known.[7] Sherwin used these models to extract a value for the common stock from the value of the preferred stock sales, while Reilly made no effort to do so.

(i) The Black-Scholes Model Suggests That the Value of the Preferred Stock Features Was 54 Cents and the Value of Nanovation's Common Stock Was Therefore $14.46 on September 30, 2000.

The Black-Scholes model is an algebraic model that allows an analyst to solve for an unknown.[8] (3/22/06 Tr. at 203-204 (Reilly)). Reilly's only criticism of Sherwin's use of the

[7] "The Black-Scholes options pricing model was developed in 1973 and it, along with its many variations, has become an important part of the financial landscape. It is based on a *continuous* distribution of the logs of investment returns. While its derivation is based on differential equations, the model itself is solved easily on a programmable calculator. Options traders on the floor of exchanges frequently carry calculators with a variation of the model programmed in." Reehl, C.B. The Mathematics of Options Trading, Mc-Graw Hill: New York (2005), p.73.

[8] See for example, Olmstead, W. Edward, Options For The Beginner and Beyond , Financial Times Prentice Hall: New Jersey (2006), pp. 215-220, and in particular the description of the model's parameters at p. 218: "To calculate the current price of a call option, the Black-Scholes formula requires the input of five pieces of information, namely

model was that he had never seen it applied to derive a value for a company's common stock from the known value of its preferred stock. However, Reilly agreed that the redemption rights of Nanovation's preferred stock were analogous to an option to sell the shares back to Nanovation at $15 per share on the redemption date. (3/22/06 Tr. at 193-94 (Reilly).

Here, Sherwin used Black-Scholes to solve for the value of Nanovation's common stock. Sherwin assumed that the value of Nanovation's preferred stock was $15 per share on September 30 -- an assumption with which Reilly did not agree with at trial, despite his deposition testimony in which he accepted that value for at least the Series B offering. However, since actual market transactions are the best evidence of a security's value, Sherwin's assumption that the preferred shares were worth $15 is entirely reasonable given the actual sales shortly before September 30. Using the Black-Scholes model with the $15 preferred price plugged in as one variable, Sherwin tried different common stock values until he discovered the one that resulted in a preferred stock value of $15 per share. Sherwin determined that Nanovation's common stock had a value of $14.46 as of September 30, 2000.

(ii) Sherwin's Monte Carlo Simulation Suggests that Nanovation's Common Stock had a value of $14.22 on September 30, 2000.

A Monte Carlo simulation is a generally accepted statistical technique that can account for more variables than the Black-Scholes model. See ¶ 239 herein. Sherwin concluded from his application of a Monte Carlo simulation that if Nanovation's Series A and B convertible preferred stock had a fair market value of $15 per share on September 30, 2000, then

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(1) the current price of the stock, (2) the strike price of the option, (3) the amount of time remaining until the option expires, (4) the current interest rate, and (5) the value of the volatility parameter for the stock…"

Nanovation's common stock had a fair market value of approximately $14.22 on September 30, 2000.

Again, Reilly does not criticize the formula employed by Sherwin in his Monte Carlo simulation, the assumptions and inputs, or the application of the model. Reilly's only points of contention are with the assumption that the preferred stock had a fair market value of $15 per share and the fact that he has never seen a Monte Carlo simulation used in similar circumstances. But the court heard no evidence that might provide a reason to believe that Sherwin's analysis of the value of Nanovation's common stock as derived from the value of its preferred stock is unreliable. Indeed, the similar results flowing from the application of these two valuation techniques confirm their probable reliability.

b) KPMG's And Sherwin's Conclusions of Value Are Corroborated By Evidence of Actual Individual Transactions and Stamford International.

While neither KPMG nor Sherwin took individual transactions in Nanovation common stock into account as part of their analysis, such evidence, in addition to evidence regarding Stamford, corroborates their conclusions and raises a red flag with regard to Reilly's valuation conclusion. Actual transactions in the securities being valued are the best source of evidence of the value of those securities. See also Polack v. C.I.R., 366 F. 3rd 608, 611 (8th Cir. 2004); Desmond v. C.I.R., No. 26237-96, 1999 WL 124451, *2 (U.S. Tax Ct. Mar. 10, 1999). Valuations of the stock of privately held companies "are necessarily imprecise and involve estimates, and estimates and approximations are generally less reliable than evidence of actual sales of the property to be valued." Estate of Hall v. C.I.R., 92 T.C. 312, 338 (1989) (citing Tripp v. C.I.R., 1963 WL 693 (U.S. Tax Ct. Sept. 11, 1963), aff'd, 337 F. 2nd 432, 434-35 (7th Cir.

1964)). When a valuation analyst has evidence of actual transactions in the stock of the company he or she is valuing, he or she should consider those transactions. See Pacific Sound Production, Ltd. Partnership v. C.I.R., 1993 WL 192966 (U.S. Tax Ct. June 8, 1993) ("Where sales of the property to be valued have been made at or about a crucial date, they are preferred as evidence of value rather than opinion.")

As Reilly acknowledged, if two indications of value are more than 20 times different, there is an error somewhere, and "you definitely would want to investigate that." (3/22/06 Tr. at 28081 (Reilly)). Nevertheless, despite his conclusion that Nanovation common stock was worth only 15 cents per share on September 30, 2000, Reilly made no effort to investigate the actual transactions in which that stock was bought and sold for $15 to $25 per share during that same time frame. Reilly disregarded the evidence of actual transactions in Nanovation common stock even though those real world purchases and sales suggest that an objective analyst would "definitely want to investigate" his valuation of 15 cents per share.

Reilly reviewed the Nanovation stock register and was aware of numerous individual transactions in Nanovation's common stock. See ¶¶ 280-285 herein. He heard of transactions occurring at prices as high as $78 per share and had Exhibit 672 listing 16 transactions in Nanovation common stock ranging from prices as high as $45 per share and only as low as $7 per share (with those $7 transactions all occurring in March, 2001 after the technology bubble burst). Yet Reilly took no steps to gather any additional information about these transactions. He made no effort to reconcile his conclusions with this real world evidence of Nanovation's value. "My conclusion was I simply couldn't rely on those transactions to provide meaningful valuation evidence." (3/22/06 Tr. at 147 (Reilly)).

Reilly testified that he did not consider the transactions shown in the Nanovation stock register to be evidence of an active secondary market for Nanovation stock because the register contained transfers to charities, gifts to family members, and transfers to trusts for estate planning purposes. (3/22/06 Tr. at 152 (Reilly)). He did not actually know whether any of the transactions listed in the stock register were for those purposes. (3/22/06 Tr. at 212 (Reilly)). The trustee responded by noting that KPMG and Sherwin made no effort to gather any information about these transactions. The difference, however, is that KPMG and Sherwin reached conclusions of value that were more consistent with the evidence of individual transactions in Nanovation common stock shown on Exhibit 672. (3/28/06 Tr. at 79-81 (Sherwin)). Reilly, on the other hand, concluded the stock was worth only 15 cents per share at a time when actual investors were buying and selling the same stock for $15 to $25 per share.

Reilly argues that he couldn't consider these individual transactions as indications of Nanovation's value because they just didn't seem "rational" to him. (3/22/06 Tr. at 146 (Reilly)).[9] He testified that it did not make sense for someone to buy common stock at prices in excess of $15 per share when the preferred stock, with its added features, was selling for $15 per share.

In concluding that these transactions were not rational, Reilly failed to take into account the differences between the type of investor and the amounts being invested in preferred and common stock. Investors such as Motorola and the institutions that invested in the Series B preferred stock were able to invest $5 or $10 million and to purchase hundreds of thousands of shares of stock. Individual investors who could not afford to invest large sums of money at one time were unable to participate in the preferred stock offerings. Thus, they had no choice but to

buy common stock from existing Nanovation shareholders who desired to sell, and at prices in excess of the prices that larger institutional investors were able to negotiate with Nanovation. Such is the reality of the marketplace, especially during the tech bubble of 2000.

Reilly also ignored the real world transactions in Stamford International common stock. "[I]n my opinion the stock price of Stamford International just provides no meaningful valuation guidance with regard to the stock price of Nanovation." (3/22/06 Tr. at 137 (Reilly)). Stamford International is a publicly traded company in Canada and the United States. Stamford's sole asset was its ownership of Nanovation common stock. The evidence showed that investors and Nanovation employees consulted the price of Stamford's common stock to determine what their shares of Nanovation were worth. Reilly admitted that he knew of no reason that an investor would purchase Stamford stock other than to obtain an indirect ownership in Nanovation. Therefore, it is possible to obtain a reasonable estimate of the value of Nanovation's common stock by studying the value of Stamford's publicly traded common stock (See ¶251 herein). Based on the average prices at which Stamford was trading in both the United States and Canada over the five day period immediately preceding September 30, 2000, Sherwin calculated a value of Nanovation common stock of $10.80.

Reilly testified that there were several drawbacks to using the value of Stamford common stock as an indicator of the value of Nanovation common stock. Reilly insisted that Stamford traded in an inefficient market. However, nothing in the definition of fair market value requires a transaction to occur in an "efficient" market in order for the transaction to be a fair market value transaction. (See ¶ 271 herein). See also Eckstein v. Balcor Film Investors, 8 F. 3rd 1121, 1130 (7th Cir. 1993) ("[e]ven an 'inefficient' market price is objective and contemporaneous with

[9] However, Reilly conceded that a transaction can be irrational but still be evidence of fair market value. (3/22/06

events"). Moreover, the few issues Reilly identified with Stamford would have tended to reduce the price investors would have paid for Stamford stock, meaning that the implied value of Nanovation common stock from Stamford stock was lower than the actual value of Nanovation stock.

While Stamford did not play a role in the actual computation of the value of Nanovation common stock in KPMG's September 30 Valuation, the derivation of a value of Nanovation from the value of Stamford is a "reality check" that can confirm the reasonableness of a conclusion of value, or, conversely, can raise a red flag that a valuation is not realistic. In the case of KPMG's September 30 Valuation, the prices at which Stamford stock was trading in the time period near September 30 tends to corroborate KPMG's conclusion of value. In the case of Reilly's analysis, there is no way to reconcile his theoretical 15 cent valuation with the prices real investors were actually paying for Stamford stock near September 30, 2000.

2. Although There Were Some Non-material Judgment Errors, KPMG's Decisions Adhered to Generally Accepted Valuation Practices

a) KPMG's Use of a 15% Perpetual Growth Rate in its Discounted Cash Flow Analysis Was Consistent With Generally Accepted Practices

Reilly raised a handful of minor quibbles with KPMG's DCF analysis, but these criticisms relate to issues that had only a negligible impact on KPMG's conclusion of value. The crux of Reilly's criticism of KPMG's DCF analysis was his conclusion that KPMG erred in selecting 15% as a perpetual growth rate. The parties agreed that the use of a 15% perpetual growth rate in KPMG's and Sherwin's DCF analysis accounts for the only material difference in the fair market value of Nanovation among their three DCF analyses. All agree that, despite

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Tr. at 220 (Reilly)).

Plaintiff's theme that if a company were to literally grow at 15% per year perpetually it would eventually exceed the entire U.S. economy, a perpetual growth rate is not intended to be a literal representation of how the analyst expects the subject company to grow in the future.[10]

In a DCF analysis, it would be ideal if valuation consultants could model a "smooth slope down" from high initial growth to steady growth in later years. Even Reilly agrees that ideally a valuation analyst would slowly "slope" growth down over a long period of time until that growth eventually hits a perpetually sustainable level, such as 5%. However, valuation consultants are generally unable to reduce growth gradually beyond the discrete period. A perpetual growth rate is the analytical tool designed to compensate for this imperfection.

What Reilly did in his DCF analysis, however, was inconsistent with that idea. Reilly reduced growth from 84% in 2003 to 50% in 2004 to 45% in 2005 to 15% in his terminal year (2006) and then all the way to 5% in every year thereafter perpetually. Even Reilly agreed that he failed to use a realistic growth pattern. Reilly testified that ideally the analyst would reduce growth by perhaps 1% per year from the terminal year to the perpetual growth rate, in order to make the growth curve smoother and more realistic. (3/22/06 Tr. at 250-51 (Reilly)). Reilly's DCF analysis did not model this pattern. (3/24/06 Tr. at 115-21 (Sherwin)).

Reilly accepted management's projections of rapid growth between 2001 and 2003. Thus, his estimate that Nanovation would grow at only 5% each year after 2006 is inconsistent with management's further projection that the photonics industry would "catch on" in 2005 or

[10] The trustee's theme would eventually apply to any growth rate if compounded over a very long period of time. A shareholder will value a stock based on growth over the next few years, not growth in excess of 25 years. The court agrees with Sherwin that after a long period of time the growth rate percentage is meaningless in determining value. Present value principles, which the trustee failed to take into account in his argument to the court, would discount the
future value of Nanovation into something substantially smaller than this country's gross national product.

2006. At a time when Reilly acknowledged that management expected industry growth to skyrocket, he predicted that Nanovation's growth would plummet.

Reilly also felt it was reasonable to assume a 15% growth rate for "another five years or so" after the discrete period. (3/21/06 Tr. at 193-194 (Reilly)). Reilly further testified that his research revealed studies of industry growth for Nanovation's industry that concluded growth for companies in that industry would likely be between 30% and 15% for as many as eight years into the future. (3/22/06 Tr. at 77 (Reilly)). Reilly agreed that sometimes valuation consultants use a higher perpetual growth rate as an analytical tool to compensate for their inability to practically show a long smooth declining growth curve over a long discrete period. (3/22/06 Tr. at 251 (Reilly)).

This is exactly what KPMG did. Because of the supernormal growth projected for Nanovation during the discrete period -- a premise accepted by both Reilly and Sherwin -- KPMG used a higher than normal perpetual growth rate in order to obtain a result that approximated a smooth decline in growth. Sherwin testified that a 15% perpetual growth rate was necessary because it is unrealistic that a company would suffer the kind of jagged drops in growth assumed in Reilly's model. (3/24/06 Tr. at 99-102 (Sherwin)).

Sherwin found that KPMG's predictions of future growth and the resulting revenue multiple were conservative compared to other companies in Nanovation's industry. Sherwin concluded that the use of a 15% perpetual growth rate for a company operating in this particular niche of the telecommunications industry, at the zenith of the tech bubble, was not just reasonable but actually conservative. Reilly made no effort to check the reasonableness of his assumption of a 5% perpetual growth rate. KPMG's choice to use a perpetual growth rate of 15% was justified in the unique circumstances of this particular engagement. Nanovation was a

high-tech company projecting phenomenal growth at the time of KPMG's valuation. Reilly did not dispute these projections. KPMG's selection of a 15% perpetual growth rate was therefore justified and consistent with generally applicable valuation practices.

b) KPMG's Application of the Market Multiples Approach Was Performed According to Generally Accepted Valuation Practices

The parties agree that application of a market multiples methodology is a generally accepted valuation practice. When applying the market multiples method, an analyst must exercise judgment in three areas. First, the analyst must select appropriate "guideline" companies. Second, the analyst must choose appropriate "pricing fundamentals" or ratios of various financial statistics to value. Third, the analyst must select an appropriate multiple from within the range of multiples indicated by each pricing fundamental for the selected guideline companies. Reilly's criticisms relate only to KPMG's selection of guideline companies and of pricing fundamentals.

i) KPMG'S Selection of Guideline Companies Was Reasonable and Consistent With Generally Accepted Valuation Practices

KPMG included companies in its market multiples analysis that were more mature than those Reilly selected. Since more mature companies have lower multiples of various financial statistics to their value, KPMG actually obtained a lower estimated value of Nanovation than it would have had it selected only those companies that Reilly deemed comparable. Companies founded more recently tend to have higher ratios of any given financial statistic to their value. Accordingly, the trustee's assertion that it was ridiculous for KPMG to compare Nanovation to Corning is a red herring. KPMG's estimate of value would have actually been higher had

KPMG omitted those more mature companies from its market multiples approach, as Reilly suggested.

Moreover, KPMG's selection of guideline companies such as Corning was reasonable. Donnalley testified that including more mature companies such as Corning was appropriate because even though they were larger than Nanovation, those companies were "exposed to the same industry risk factors and industry growth rates." (3/29/06 Tr. at 63 (Donnalley)). Donnalley's testimony on this point was supported by Sherwin's demonstration that the nine companies KPMG used as guideline companies performed as a group essentially the same as the four companies selected by Reilly. The logical conclusion is that the demand by investors for these 10 companies (nine selected by KPMG plus one additional company selected by Reilly) was driven by the same factors -- regardless of the inclusion of more mature companies in KPMG's mix**.**

ii) KPMG's Selection of Appropriate Pricing Fundamentals Was Consistent With Generally Accepted Valuation Practices

Both experts agreed that the decision to include or not include a pricing fundamental that considers Nanovation's anticipated future revenues accounts for almost all of the difference between Reilly's and KPMG's valuation results. Sherwin testified that an analyst who includes a fundamental that takes future expected revenue into account will obtain a value for Nanovation of roughly $2.5 billion. On the other hand, one who fails to include that fundamental will calculate a value of roughly $130 million. In contrast to KPMG's selection of four different pricing fundamentals and its decision to weigh those fundamentals according to their relative strengths and weaknesses, Reilly considered only a single pricing fundamental -- MVIC/LTM Revenue.

While it was appropriate to use MVIC/LTM Revenue as one pricing fundamental among several, it is inappropriate to utilize past revenue as the only pricing fundamental in the analysis. Historical revenue does tell a valuation analyst something about the value of the subject company, but it does not tell the analyst anything about the degree to which investors are considering the company's future expected revenues in choosing how much the company is worth. In this instance, Nanovation's historical revenue from selling software and other miscellaneous services had absolutely nothing to do with the telecommunications technology it was developing and intended to sell. Reilly's use of only a single pricing fundamental in a market multiples analysis was inconsistent with generally accepted practices, particularly in the case of a development stage company and even more particularly for a development stage company in the telecommunications industry in September 2000.

Unlike Reilly, KPMG employed several pricing fundamentals in its application of the market multiples approach to obtain a value based on Nanovation's past (its historical revenue), present (its existing balance sheet), and its anticipated future (estimated revenue). Generally valuation consultants will select several fundamentals and give them varying weights depending upon the advantages and disadvantages of each. Sherwin testified that consideration of a fundamental that took Nanovation's future prospects into account was not only appropriate, it was critical in order to obtain an accurate estimate of Nanovation's value. Investors who sought to participate in the fiber-optics industry in the year 2000 were generally looking at the expected future performance of development stage companies rather than their past performance.

Even though Reilly agreed that Nanovation's expected future revenues were the primary consideration for a potential investor, he declined to consider a pricing fundamental that took that concept into account. As Sherwin testified, a pricing fundamental that looked at the

estimated future revenue was the "most relevant statistic" for valuing Nanovation. (3/24/06 Tr. at 182 (Sherwin). Reilly improperly rejected this approach in order to support his incredibly low opinion of value.

c) KPMG'S Weighting of the Different Approaches It Used Was Consistent With Generally Accepted Valuation Practices

Reilly criticized both KPMG and Sherwin for allegedly according equal weight to the different valuation methods that -- standing alone -- resulted in widely disparate estimates of value. In fact, while KPMG accorded equal weight to the pricing fundamentals that took past revenue and anticipated future revenue into account, KPMG actually accorded different weights to its income approach and market approach, and approximately twice as much weight to its third-party approach as to its income and market approaches.

In contrast to KPMG's decision to give varying weights to the three different approaches, Reilly weighted equally the three methods that he used in his valuation. He believed that each of his methods had an equal amount of strengths and weaknesses. Thus, Reilly's criticism of equal weighting is inconsistent with how he completed his own valuation.

Overall, KPMG fairly used different approaches that took into account a wide variety of indications of value rather than a narrow set of approaches that led only to a low value. Valuation analysts use different methods in order to adjust for the pros and cons of each method. As a result, analysts must exercise their judgment in according different weights to the different factors or methods, as illustrated by KPMG's valuation analysis. However, there is nothing wrong with placing equal value on two different valuation methods if, in the judgment of the analyst, their pros and cons justify such weighting. The fact that those methods produce

different indications of value -- even significant differences of value -- does not change their relative pros and cons. (3/29/06 Tr. at 70 (Donnalley) ("[T]here is nothing unusual about assigning an equal weighting to two disparate indications of value.").

In performing his market multiples analysis, Sherwin applied equal weight to the pricing fundamental of BEV/Revenue and BEV/Estimated 2001 Revenue. Similar to Reilly's justification of his own equal weighting, Sherwin explained that this was necessary because each method exhibited fundamental strengths and weaknesses. Although the use of these methods led to significantly different indications of value, Sherwin was comfortable with equal weighting. He calling one a "best case" scenario and the other a "worst case" scenario, and suggested that a value between those two scenarios was probably most reliable.

IV. CONCLUSION

After careful consideration of all the evidence, this court firmly believes that KPMG's work was neither negligent nor in breach of its contract with Nanovation. Moreover, KPMG's valuation was performed in a manner that was decidedly more reasonable than the analysis completed by the trustee's expert for this litigation. It was not enough for the trustee to promote Reilly's authorship of a widely accepted valuation textbook over careful analysis and reasoning. At the end of the day, the trustee's hyperbole did not prevail over logic.

Moreover, if the court had found that KPMG's September 30 Valuation was improperly performed, the trustee failed to carry his burden that the valuation was the proximate cause of any damage to Nanovation or even that Nanovation suffered any damages, as discussed in this opinion's introduction. While the court could elaborate further, as KPMG effectively did in its post trial brief, there is no need, given the court's conclusion that KPMG performed its valuation in accordance with generally accepted methods and in compliance with its contract.

Wherefore, judgment will be entered in favor of the defendants and against the trustee on all three counts of the complaint.

Date: _____

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PAMELA S. HOLLIS
United States Bankruptcy Judge