

February 10, 2004

TO: Client

FROM: Austin Long / Craig Nickels

SUBJECT: Portfolio projections for CLIENT

Introduction

In projecting CLIENT's likely future cash flows and valuations, we have used selected private equity fund cash flow data from the Venture Economics database. The timing and amounts of the cash flows in our study includes prior booms (1979-1982) and busts (1983-1987, 2000 to the present) in the venture market; such crises as the Crash of 1987, the Arab oil embargo of 1973 and the bear market of 1974 that ensued; the arrest of Michael Milken and consequent collapse of the junk bond market he had built in 1991; and a host of other important influences on the buyout and distressed securities markets. In short, we believe that the returns and risks incorporated into our cash flow and valuation projections are sustainable over the projection period for this assignment.

There is no market timing built into our projections. All commitments to all sub-asset classes are kept as constant as possible, as a percentage of total commitments, in order to build a portfolio comprised of what we believe is the optimal sub-asset allocation.

Finally, we have constrained venture capital to 15% in light of the likely size of CLIENT's commitment program. We have assumed that the CLIENT staff can therefore fruitfully put to work all the capital required by our projections.

Reader's Note: This section is for existing portfolios

CLIENT from a process control perspective

We began by reviewing CLIENT's actual capital contributions against our expectations of what they would have been in light of commitments to private equity since inception.



Note that actual capital contributions were much higher than expected in 1998 and 1999 and much lower than expected in 2001 through 2003, reflecting the general industry pattern over the same time period. On a cumulative basis, CLIENT is approximately on track with expectations:



Takedown

Return of capital began to drop below expectations in 2000, with the bursting of the tech bubble and the decline in the public market, and has fallen off especially sharply in 2003.



ROC

As a result, cumulative return of capital has been almost exactly on track until 2003:



Cumulative ROC

As a result of the increased pace of capital contributions, net cash flow was below expectations in 1998 through 2000 and has fallen well below expectations in 2003.



Cumulative net cash flow remains roughly on track with expectations, although the decline in distributions in 2003 is still obvious:



Cumulative NCF

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NCF

Valuations rose markedly above expectations during the tech bubble of the late 90s, but have fallen back below expectations recently. The recovery of valuations from the 2002 time period seems encouraging that valuations will more closely track expectations in the future.





The Markowitz Efficient Frontier

40%

45%

45%

50%

50%

55%

55%

60%

60%

65%

65%

70%

70%

75%

75%

80%

5%

10%

5%

10%

5%

10%

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40%

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35%

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20%

25%

15%

20%

10%

15%

5%

10%

0%

5%

0%

etermined that CLIENT's efficient frontier on an IRR basis is as follows:											
	Large LBO Med LBO Distressed Venture Early Venture Other Risk										
	50%	25%	10%	5%	10%	5.769%	9.952%				
	55%	25%	5%	5%	10%	5.806%	9.962%				
	45%	30%	10%	5%	10%	5.809%	10.335%				
	50%	30%	5%	5%	10%	5.844%	10.345%				
	40%	35%	10%	5%	10%	5.946%	10.719%				
	45%	35%	5%	5%	10%	5.980%	10.728%				
	35%	40%	10%	5%	10%	6.176%	11.102%				

5%

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10%

6.208%

6.488%

6.518%

6.871%

6.898%

7.314%

7.338%

7.806%

7.829%

8.339%

8.360%

8.906%

8.925%

9.500%

9.517%

10.133%

11.112%

11.485%

11.495%

11.869%

11.878%

12.252%

12.262%

12.635%

12.645%

13.019%

13.028%

13.402%

13.411%

13.785%

13.795%

14.178%

We have analyzed the various asset classes in the Venture Economics database and have determined that CLIENT's efficient frontier on an IRR basis is as follows:

Markowitz Efficient Frontier Five Assets - Yearly Data



We have used the same data to analyze CLIENT's efficient frontier on a TME (times money earned) basis as follows:

Large LBO	Med LBO	Distressed	Venture Early	Venture Other	Risk	Return
20%	10%	60%	5%	5%	0.6136	2.1874
25%	10%	55%	5%	5%	0.6186	2.1890
15%	15%	60%	5%	5%	0.6254	2.2242
20%	15%	55%	5%	5%	0.6270	2.2258
25%	15%	50%	5% 5%	5%	0.6339	2.2275
20%	10%	50%	5% 5%	10%	0.6399	2.2000
25%	10%	55%	5%	10%	0.0300	2.2300
20%	15%	50%	5%	10%	0.6479	2.2915
25%	15%	45%	5%	10%	0.6545	2 2951
30%	15%	40%	5%	10%	0.6660	2.2967
15%	20%	50%	5%	10%	0.6751	2.3303
20%	20%	45%	5%	10%	0.6783	2.3319
25%	20%	40%	5%	10%	0.6864	2.3336
30%	20%	35%	5%	10%	0.6992	2.3352
35%	20%	30%	5%	10%	0.7165	2.3368
10%	25%	50%	5%	10%	0.7183	2.3672
15%	25%	45%	5% 5%	10%	0.7184	2.3088
20%	25%	40%	5%	10%	0.7232	2.3704
30%	25%	30%	5%	10%	0.7323	2.3720
35%	25%	25%	5%	10%	0.7400	2.3752
10%	30%	45%	5%	10%	0.7723	2.4057
15%	30%	40%	5%	10%	0.7741	2.4073
20%	30%	35%	5%	10%	0.7801	2.4089
25%	30%	30%	5%	10%	0.7904	2.4105
30%	30%	25%	5%	10%	0.8047	2.4121
35%	30%	20%	5%	10%	0.8229	2.4137
10%	35%	40%	5%	10%	0.8364	2.4441
15%	35%	35%	5%	10%	0.8395	2.4457
20%	35%	30%	5%	10%	0.8466	2.4473
25%	35%	25%	5%	10%	0.8576	2.4490
30%	35%	20%	5%	10%	0.8723	2.4506
35%	35%	15%	5%	10%	0.8905	2.4522
5%	40%	40%	5%	10%	0.9079	2.4810
10%	40%	30%	5% 5%	10%	0.9065	2.4620
20%	40%	25%	5%	10%	0.9120	2.4042
25%	40%	20%	5%	10%	0.9207	2.4030
30%	40%	15%	5%	10%	0.9470	2.4890
35%	40%	10%	5%	10%	0.9651	2.4906
5%	45%	35%	5%	10%	0.9850	2.5195
10%	45%	30%	5%	10%	0.9868	2.5211
15%	45%	25%	5%	10%	0.9920	2.5227
20%	45%	20%	5%	10%	1.0005	2.5243
25%	45%	15%	5%	10%	1.0123	2.5259
30%	45%	10%	5%	10%	1.0273	2.5275
35%	45%	5%	5%	10%	1.0452	2.5291
5%	50%	30%	5%	10%	1.0671	2.5579
10%	50%	25%	5%	10%	1.0699	2.5595
20%	50%	15%	5%	10%	1.0759	2.5011
25%	50%	10%	5%	10%	1 0970	2 5644
30%	50%	5%	5%	10%	1.1120	2.5660
0%	55%	30%	5%	10%	1.1523	2.5948
5%	55%	25%	5%	10%	1.1531	2.5964
10%	55%	20%	5%	10%	1.1569	2.5980
15%	55%	15%	5%	10%	1.1635	2.5996
20%	55%	10%	5%	10%	1.1730	2.6012
25%	55%	5%	5%	10%	1.1852	2.6028
0%	60%	25%	5%	10%	1.2406	2.6333
5%	60%	20%	5%	10%	1.2424	2.6349
10%	60%	15%	5%	10%	1.2469	2.6365
10%	0U%	10%	5% 50/	10%	1.2540	2.0381
20%	0U%	5% 20%	5% 5%	10%	1.2038	2.039/
5%	65%	20% 15%	5%	10%	1.3315	2.0717
10%	65%	10%	5%	10%	1,3303	2.6733
15%	65%	5%	5%	10%	1.3469	2.6765
0%	70%	15%	5%	10%	1.4245	2.7102
5%	70%	10%	5%	10%	1.4279	2.7118
10%	70%	<u>5%</u>	<u>5%</u>	<u>10%</u>	1.4336	2.7134
0%	75%	10%	5%	10%	1.5194	2.7487

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Markowitz Efficient Frontier Five Assets - Yearly Data

These analyses can be summarized as follows, color coded in the same way as the graphs above:

	Large LBO	Med LBO	Distressed	Venture Early	Venture Other	Total
IRR	30%	45%	10%	5%	10%	100%
TME	20%	20%	45%	5%	10%	100%
Average	25.0%	32.5%	27.5%	5.0%	10.0%	100%
	Large LBO	Med LBO	Distressed	Venture Early	Venture Other	Total
IRR	20%	60%	5%	5%	10%	100%
TME	15%	50%	20%	5%	10%	100%
Average	17.5%	55.0%	12.5%	5.0%	10.0%	100%
	Large LBO	Med LBO	Distressed	Venture Early	Venture Other	Total
IRR	5%	75%	5%	5%	10%	100%
TME	10%	70%	5%	5%	10%	100%
Average	7.5%	72.5%	5.0%	5.0%	10.0%	100%

We used the efficient frontier coded in green in the graphs and in the table above in developing an investment program for CLIENT.

Results of the analysis

With the CLIENT allocation of 5%, the following graph depicts the sub-asset allocations required to reach the efficient frontier:



Historical and Expected Sub-Asset Allocation

The actual annual sub-asset allocation levels that result in the desired percentages in the time period shown in the graph above are as follows:

Distressed Other	\$167.0	\$136.9	\$108.9	\$121.7	\$141.3	\$174.1	\$175.0	\$162.5	\$137.5	\$175.0
Leveraged Buyout Large	\$233.8	\$191.7	\$152.5	\$170.3	\$197.9	\$243.7	\$245.0	\$227.5	\$192.5	\$245.0
Leveraged Buyout Other	\$734.9	\$602.4	\$479.3	\$535.3	\$621.9	\$766.1	\$770.0	\$715.0	\$605.0	\$770.0
Lexington Co-Inv Direct	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0
Liberty Pools Direct	\$63.8	\$54.6	\$28.5	\$26.7	\$19.2	\$7.2	\$0.0	\$0.0	\$0.0	\$0.0
Venture Capital Early	\$66.8	\$54.8	\$43.6	\$48.7	\$56.5	\$69.6	\$70.0	\$65.0	\$55.0	\$70.0
Venture Capital Other	\$133.6	\$109.5	\$87.2	\$97.3	\$113.1	\$139.3	\$140.0	\$130.0	\$110.0	\$140.0
Total	\$1,500.0	\$1,250.0	\$1,000.0	\$1,100.0	\$1,250.0	\$1,500.0	\$1,500.0	\$1,400.0	\$1,200.0	\$1,500.0

These commitments will result in the following valuations:





These valuations, given the assumptions you have provided us on the size of the CLIENT portfolio over this time period, are likely to result in the following asset allocation levels over the next ten years (the current 5% allocation is marked in blue, the first full allocation year is marked in green):



Base Asset Allocation %

Finally, the private investment program as a whole, based on the commitment schedule underlying our projections, will result in the following net cash flows to CLIENT (the breakeven point is in green):



Base NCF

Please see Appendix A for a detailed report containing the commitment schedules, net cash flows, valuations and asset valuation percentages for each year of the 5% allocation projection.

Appendix A

Expected Value at 5% Allocation, Assuming Discontinuation of Liberty

	2004e20		e 2006e 2007e			2008e	2009e		2010e		
Total Fund Value	x \$100,092,720,789	y 9 \$104,594,620,858	z \$`	110,064,071,881	aa \$	a 5116,527,970,035	ab \$123,254,263,018	ac \$1	30,225,886,734	ad \$1	137,314,598,473
Fund ex-Alternatives Alternative Investments Total	\$ 95,998,408,112 \$ 4,094,312,677 \$ 100,092,720,789	2 \$100,005,012,146 7 \$ 4,589,608,712 9 \$104,594,620,858	\$ \$ \$	104,589,437,765 5,474,634,116 110,064,071,881	\$ \$ \$	110,817,851,958 5,710,118,077 116,527,970,035	\$116,858,822,642 <u>6,395,440,376</u> \$123,254,263,018	\$1 \$ \$1	22,265,179,869 7,960,706,865 30,225,886,734	\$1 \$ \$1	130,923,636,615 6,390,961,858 137,314,598,473
Beginning Undrawn Commitments Commitments Added Commitments Drawn Down Ending Undrawn Commitments	\$ 1,503,686,729 \$ 1,500,000,000 \$ 594,189,461 \$ 2,409,497,269	2 2,409,497,269 3 1,250,000,000 1 718,888,753 2 2,940,608,516	\$ \$ \$	2,940,608,516 1,000,000,000 824,816,623 3,115,791,892	\$ \$ \$	3,115,791,892 1,100,000,000 881,992,702 3,333,799,191	\$ 3,333,799,191 \$ 1,250,000,000 \$ 810,472,089 \$ 3,773,327,102	\$ \$ \$	3,773,327,102 1,500,000,000 1,015,641,426 4,257,685,676	\$ \$ \$	4,257,685,676 1,500,000,000 1,145,359,264 4,612,326,411
Total Cash Draws Total Cash Returned	\$ 594,189,461 \$ 704,883,874	1 \$ 718,888,753 4 \$ 774,024,567	\$ \$	824,816,623 861,800,549	\$	881,992,702 1,022,920,798	\$ 810,472,089 \$ 1,074,102,521	\$	1,015,641,426 1,261,972,622	\$	1,145,359,264 1,502,350,785
Total Net Cash Returned (Required)	\$ 110,694,413	3 \$ 55,135,815	\$	36,983,926	\$	140,928,096	\$ 263,630,432	\$	246,331,195	\$	356,991,520
Beginning Value Distributions Draws Unrealized Appreciation Ending Valuation	<pre>\$ 3,174,649,460 \$ 704,883,874 \$ 594,189,461 \$ 1,030,357,630 \$ 4,094,312,677</pre>	\$ 4,094,312,677 \$ 774,024,567 \$ 718,888,753 \$ 550,431,849 7 \$ 4,589,608,712	\$ \$ \$ \$ \$	4,589,608,712 861,800,549 824,816,623 922,009,330 5,474,634,116	\$ \$ \$ \$ \$	5 5,474,634,116 1,022,920,798 881,992,702 376,412,058 5,710,118,077	\$ 5,710,118,077 \$ 1,074,102,521 \$ 810,472,089 \$ 948,952,731 \$ 6,395,440,376	\$ \$ \$ \$	6,395,440,376 1,261,972,622 1,015,641,426 1,811,597,684 7,960,706,865	\$ \$ \$	7,960,706,865 1,502,350,785 1,145,359,264 (1,212,753,486) 6,390,961,858
Percent Invested Alt Investments	4.1%	% 4.4%)	5.0%		4.9%	5.2%		6.1%		4.7%

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