the economics of the PE industry:

the institutional investor perspective

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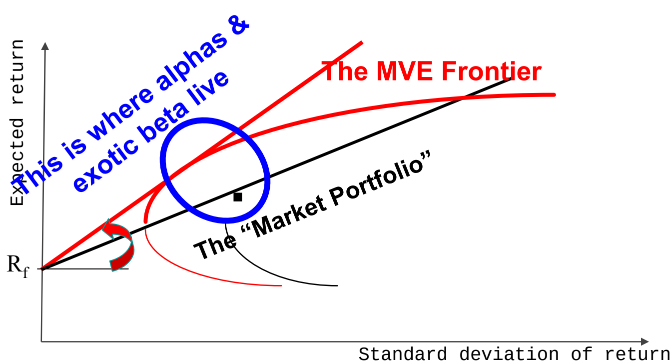
1

the economic rational



- Buy and hold market portfolios (=indexation) are capitalization-based by nature
- There is no reason to assume that they are mean-variance efficient, though.
- Plus there are other priced sources of risk

2

alphas and exotic betas

- "alpha" relative to index is for real

  ...although may be fair compensation for other risks (eg, liquidity, interest rate,…)

➔ gain alpha by switching from naïve cap-weighted equity into, eg,
  - small-size tilted
  - value-tilted portfolios
  - momentum-tilted portfolios
  - high dividend-tilted, better, high payout-tilted, better, high-net-payout-tilted portfolios ***(*)***

  similarly, gain alpha by switching from naïve global cap weighted to
  - predictability-based dynamically managed portfolios
  - currency risk dynamically managed portfolios ***(*)***

  similarly, long credit spreads and liquidity risk relative to indexes, long exotic (illiquid) asset classes (EMs, cat bonds,…), illiquid PE and VC funds,…

(*)See my website for previous year presentations related to these issues

3

the evolution of the asset management & alternative investment industry over the past decade

- the alpha-beta separation is functional
- a huge transfer of wealth from FIs to individuals
- growth in **supply** of "alpha" – a natural result of the attractive nature of the 2-20 economics (on alpha? on beta?)
- growth in **demand** for alpha – a results of the success of HNW individuals and some endowment funds
- the 3-4 trillion dollar question(s):
  - from the investor's perspective: is there any ***net alpha*** left on the table?
  - from social welfare perspective: can 3-4% X 3-4 trillion annual fees ($100-150bil) be justified?
    - on the one hand, probably a reasonable cost for bringing pure beta close to being MVE, especially considering the alternative (where we were pre the alpha-beta separation)
    - on the other hand, is the industry now too expensive?
  - how will the industry change (contracts will have better benchmarks, fees will exhibit greater variety, and size will shrink)?

4

show me the *(net, ex ante)* alpha!

sneak preview of research in progress under grant from the Q group:

- In this paper we focus on the interaction between expected fees and the investment's risk characteristics.
- We use the common distinction between the two sources of risk and return in actively managed funds – market (beta) and fund-specific (alpha).
- We ask: how much do investors *really* pay for alpha, in the presence of fees that are partly fixed and partly performance-based.
- Importantly, performance is a function of *total risk*, not just of *alpha risk*.
- Total expected fees are, hence, partly due to market risk.
- We compute the "effective fee" based on the assumption that beta risk and return are essentially free.

5

the effect of market risk (beta) on breakeven alpha

- *breakeven alpha*:
  - answers the question: "How much gross (pre fee) alpha do we need in order to overcome the fixed and variable fees plus the fees paid for the built–in beta?"
- consider a PE fund investing as follows:
  - investment: 8yrs, 70% in 1-4, 30% in 5-8, liquidating end of yr8
  - fees:2%ps + 20% performance w no hurdle
  - alpha std is 20/40%pa
- data: use actual beta "vintages" -- US market data 1974-2006
- the benchmark: an index investor w/ zero fee and no alpha
- could be thought of as an exercise in (fee and) risk adjustment

6

σ_α=20%pa						
β	Break even α	Prob (return money)	Pre fee SR	Relative return at α=0	Prob (return money)	Pre fee IR
0	**3.9**	46%	1.56	-18%	27%	0
1	**5.2**	93%	2.08	**-22%**	**83%**	0
2	**6.0**	97%	2.40	**-25%**	**92%**	0

σ_α=40%pa						
β	Break even α	Prob (return money)	Pre fee SR	Relative return at α=0	Prob (return money)	Pre fee IR
0	4.6	39%	0.92	-21%	28%	0
1	5.5	72%	1.10	-24%	60%	0
2	6.2	86%	1.24	-26%	78%	0

Beta=1
Alpha=5.2%pa
Alphavol=20%pa

Vintage	Rindx	Rpe	Rpe/Ridx	Posvntg
average	**206.42**	**205.15**	**0.00**	**93.38**
1974.00	196.10	195.93	-0.09	95.82
1975.00	221.65	219.37	-1.03	97.78
1976.00	229.12	224.95	-1.82	98.46
1977.00	206.93	206.27	-0.32	96.96
1978.00	242.28	237.50	-1.97	98.85
1979.00	241.83	237.00	-2.00	98.85
1980.00	207.81	206.89	-0.44	97.04
1981.00	209.87	208.19	-0.80	97.19
1982.00	242.76	237.18	-2.30	98.91
1983.00	193.27	194.90	0.85	95.34
1984.00	222.74	219.16	-1.60	97.88
1985.00	214.07	212.55	-0.71	97.39
1986.00	204.45	204.03	-0.21	96.83
1987.00	178.37	180.83	1.38	93.19
1988.00	218.73	216.15	-1.18	97.86
1989.00	228.10	223.80	-1.89	98.34
1990.00	257.78	248.90	-3.45	99.34
1991.00	280.88	270.07	-3.85	99.67
1992.00	301.35	287.06	-4.74	99.83
1993.00	234.55	232.50	-0.87	98.33
1994.00	180.33	185.35	2.78	92.66
1995.00	122.65	133.06	8.48	71.95
1996.00	135.94	143.28	5.40	78.76
1997.00	131.71	137.61	4.48	76.74
1998.00	125.51	130.59	4.04	73.24
1999.00	138.01	140.76	1.99	80.63

Beta=1
Alpha=0.0%pa
Alphavol=20%pa

Vintage	Rindx	Rpe	Rpe/Ridx	Posvntg
average	**206.42**	**160.35**	**-21.94**	**83.03**
1974.00	196.10	153.39	-21.78	85.21
1975.00	221.65	171.36	-22.69	91.11
1976.00	229.12	176.17	-23.11	92.91
1977.00	206.93	161.30	-22.05	88.42
1978.00	242.28	185.56	-23.41	94.46
1979.00	241.83	185.02	-23.49	94.41
1980.00	207.81	162.23	-21.93	88.70
1981.00	209.87	163.12	-22.28	89.27
1982.00	242.76	186.30	-23.26	94.88
1983.00	193.27	151.78	-21.47	84.45
1984.00	222.74	172.12	-22.72	91.56
1985.00	214.07	166.32	-22.30	89.92
1986.00	204.45	159.12	-22.17	87.79
1987.00	178.37	141.03	-20.93	78.77
1988.00	218.73	169.04	-22.72	90.94
1989.00	228.10	175.92	-22.87	92.74
1990.00	257.78	195.84	-24.03	96.35
1991.00	280.88	212.22	-24.45	97.78
1992.00	301.35	226.67	-24.78	98.82
1993.00	234.55	181.47	-22.63	92.77
1994.00	180.33	143.55	-20.40	78.81
1995.00	122.65	101.06	-17.61	46.78
1996.00	135.94	110.21	-18.93	55.48
1997.00	131.71	106.40	-19.22	51.96
1998.00	125.51	101.24	-19.34	47.35
1999.00	138.01	110.57	-19.88	57.21

recasting the PE investment decision

- in the end of the day, the economics of this analysis is well known in the industry: everybody seems to ask the same question:

  "what are the odds that [the average of] my PE portfolio will be in the top quartile?"

- in terms of the previous analysis: *"what are the odds that I will invest in a portfolio of PE funds with an average pre fee alpha > 5-6% ? "*

- this is reminiscent of questioning active mutual funds vis-à-vis indexation? *"Do I get rewarded for the extra fee in tracking error return"*
- finally, how do we factor in the inherent **illiquidity** of PE? is it a pro or a con…?

how do I explain, then, the recent months craze into LBO-driven PEs and the related proliferation in PE fund driven LBOs?

- enter a bidding war & buy a (say) 5% overpriced asset, paying $105 instead of $100 ➔ you overpaid $5 (you are long some negative alpha)
- finance it with $90 of super-cheap debt (10 year debt at 6% instead of 8%) ➔ underpaid $8.5 (short negative alpha)
- you made $3.5 on $15 of equity: 23% return
- pre-fee or in a comp, no question, you have positive alpha
- post fee, with large leverage (hence beta), there is still a question of whether your investor will get any net alpha. top quartile needs to be real good (and they tended to be, so far)