MONEYBALL MEETS PRIVATE EQUITY:

HOME RUN OR STRIKEOUT?

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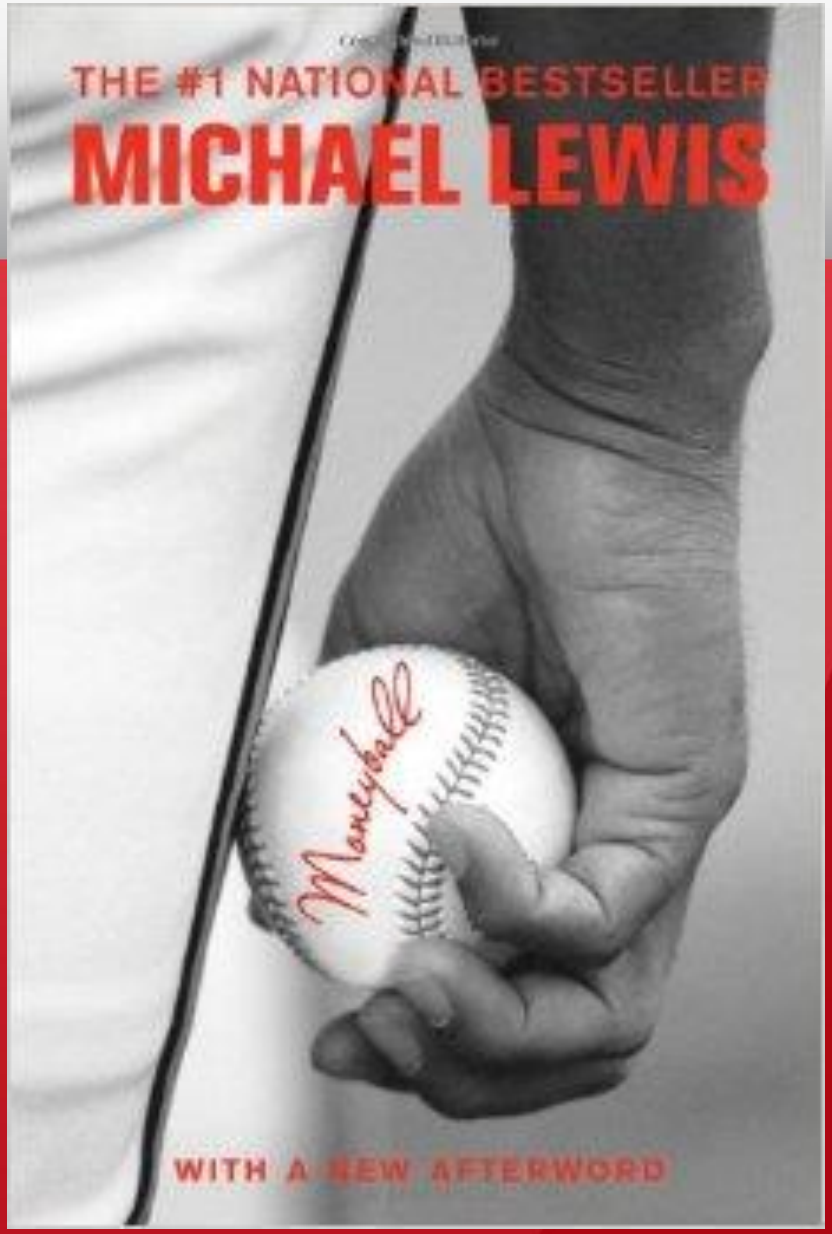

THE #1 NATIONAL BESTSELLER
MICHAEL LEWIS
Moneyball
WITH A NEW AFTERWORD

Outline

- The problems with numbers today:
  - Performance data.
  - Performance analytics.
  - Social impact measurement.
- Some potential solutions.

1. Performance data

- Fundamental importance for:
  - Asset allocation.
  - Performance benchmarking.
  - Compensation.
  - Risk assessment.
    - Important to GPs, LPs and regulators alike!

But…

- Substantial disparities across data sources:
  - Returns and even deals.
- Variety of hypotheses regarding potential reporting biases.
- But still unclear what is really behind the differences.

Weighted average buyout IRR

	BURGISS	CAMBRIDGE ASSOCIATES	PREQIN	THOMSON
1980s	16.7%	15.1%	22.0%	21.0%
1990s	19.3%	15.9%	17.6%	11.8%
2000s	11.0%	11.9%	12.8%	7.1%
ENTIRE PERIOD	***15.7%***	***14.2%***	***16.9%***	***12.3%***

Harris, et al. [2014].

Weighted average venture IRR

	BURGISS	CAMBRIDGE ASSOCIATES	PREQIN	THOMSON
1980s	15.8%	12.3%	18.7%	12.7%
1990s	38.6%	32.5%	32.9%	33.6%
2000s	0.3%	-0.7%	1.6%	0.7%
ENTIRE PERIOD	***19.3%***	***15.7%***	***18.2%***	***16.8%***

Harris, et al. [2014].

Similar story with deals

- Evidence from Maarts, et al. [2011]:
  - Focus on 40 PE funds, vintage years 1993-2003.
  - Get detailed data about Investments and exits from major limited partner.
  - Compare Thomson and Dow Jones data.

Current status analysis

	Defunct	Public	Acquired	Private	Total
T: %	22.4%	7.4%	32.5%	37.7%	100%
% Correct	42.8%	90.0%	65.2%	94.9%	73.2%
DJ: %	17.7%	5.1%	33.9%	43.3%	100%
% Correct	73.4%	100.0%	75.6%	96.1%	85.3%

Note: DJ exit/status coverage appears to have dropped dramatically in recent years (as many as 70% missing).

Round-level comparison

	DJ	T
Total firms compared	173	173
Count of rounds	592	857
Number with investment date	591	857
Rounds with same date in VS and VX	190	190
Number with post-money valuation	262	288
Number with same* post-money valuation in VS and VX	95	95
Number with same number of investors in VS and VX	203	207
Number of rounds with investment amount	570	857
Average investment per company ($M)	$7.8	$8.6
Number with same* investment amount in VS and VX	248	258
Number with same* date, amount, investor count, and valuation	13	13
* Within $1 million.		

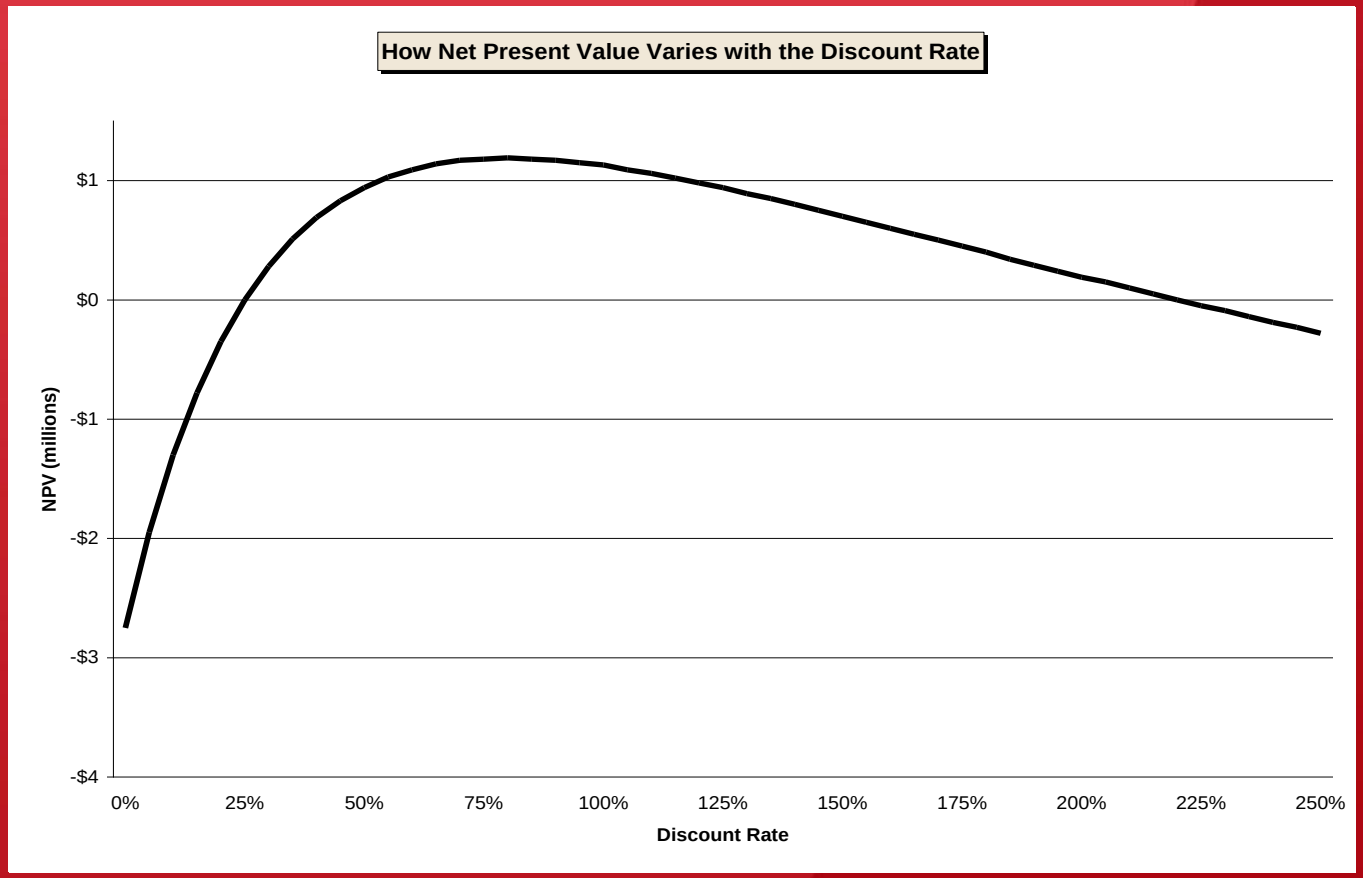
2. Performance analytics

- Each of commonly used benchmarks has problems.
- Moreover, not systematically applied.
- Nor is there a clear “right answer” from academe.

IRR ugliness

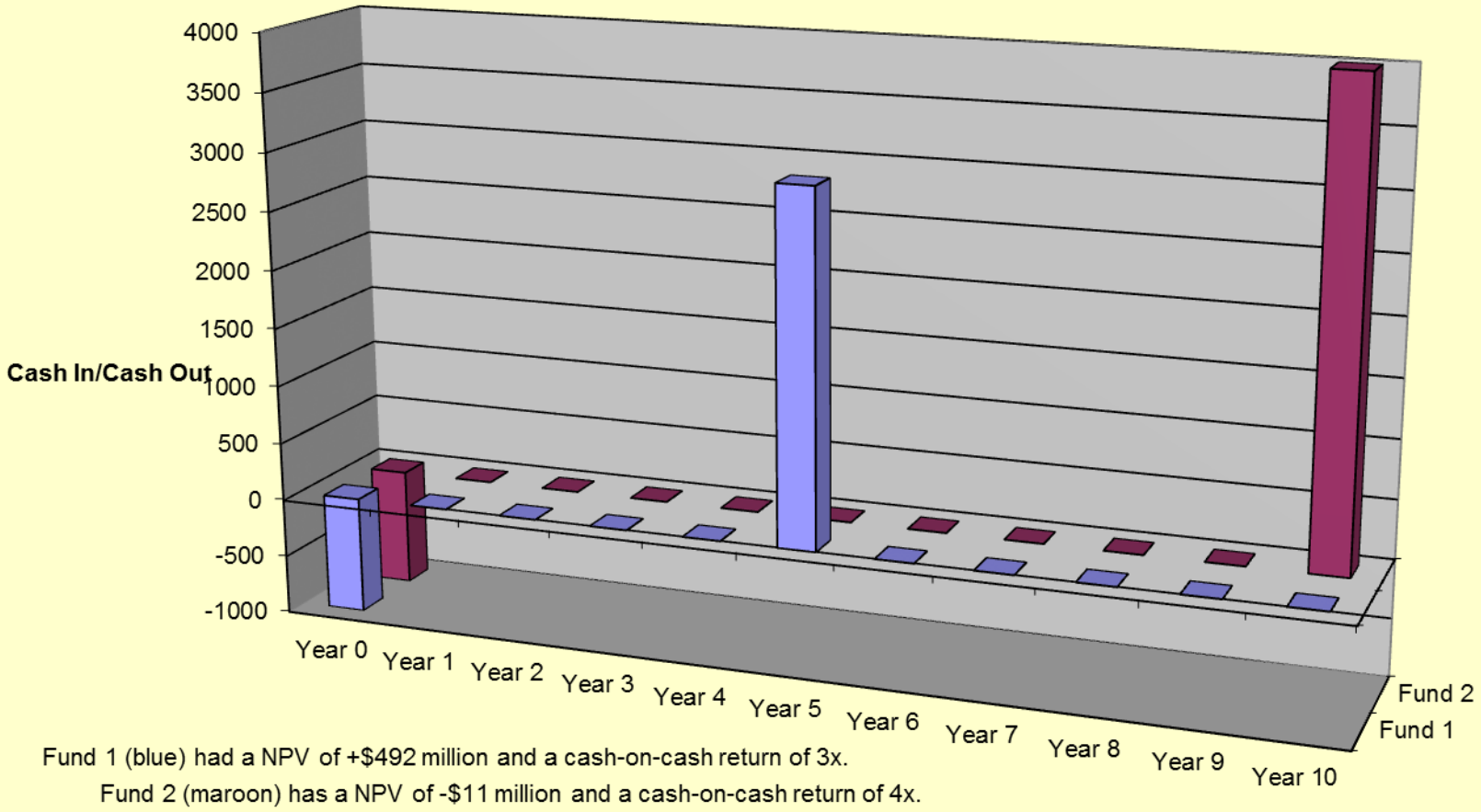
- Distortion from “quick hits.”
  - Failure to account for cost of investment selection.
  - Capital call lending exascerbating the issue.
- The valuation of non-exited investments.
- The paradox of multiple IRRs:
  - If there is a sequence where:
    - Some capital is drawn down from investors.
    - Some returned to investors.
    - Followed by additional draw downs and capital returns.

IRR ugliness (2)



Lerner, et al. [2012].

Multiple ugliness



Fund 1 (blue) had a NPV of +$492 million and a cash-on-cash return of 3x.
Fund 2 (maroon) has a NPV of -$11 million and a cash-on-cash return of 4x.

Lerner, et al. [2012].

Public market equivalent

- Compares the proceeds generated by investing in the private equity fund...
  - With generated by investing a like amount in the S&P or another benchmark.
  - Unlike the others, comparing to the market as a whole rather than one fund.

PME ugliness

- But issues here as well…
  - Calculations may give nonsensical answers:
    - Again, capital call loans can distort.
  - Cannot always handle poorly performing funds.
  - Still dependent on interim valuations for unexited funds.
  - Implicitly assumes private equity should perform as well as market benchmark.

“EVA-style” analysis

- Look at net present value of fund’s cash flows.
- Normalize it by present value of funds invested.
- Gives better sense of value created over time.

EVA (2)

- Key question: WHAT DISCOUNT RATE TO USE?
  - Should reflect risk of investments.
  - Many studies, but very sensitive to assumptions.
    - Plus many of other problems as before.

Estimated betas for venture capital

- Ljungqvist-Richardson ‘03: 1.1.
- Phalippou-Zollo ‘05: 1.5-1.6.
- Cochrane ‘05: 1.7.
- Jones-Rhodes-Kropf ‘03: 1.8.
- Woodward ‘05: 2.0.
- Driessen-Lin-Phalippou ’07: 2.2.
- Korteweg-Sorensen ‘10: 2.8.
  - Imply discount rates from 9% to 23%.
    - And how to handle illiquidity???

3. Social impact measurement

- Increasing demand in Washington and Brussels alike:
  - Even in many emerging markets, desire for understanding.
- Despite appetite, limited data and understanding.

- There's a big difference between people who go out and create a company—even if they fail—if they try to go in the right direction, if they share in the hardships, if they're out there with the workers doing it together. That's one thing. But if someone who is very wealthy comes in and takes over your company and takes out all the cash and leaves behind the unemployment?

- They are energetic. They are very smart. But a lot of them - they are paper-pushers. They make a fortune. They pay no tax. It's ridiculous, ok? Some of them are friends of mine. Some of them, I couldn't care less about.

Issues with many studies

- Mix of venture and buyout targets.
- Reliance on survey responses of uncertain quality:
  - Lack of consistency across firms in methodology.
- Inability to discern where jobs are being created and destroyed (domestic vs. abroad).
- Lack of suitable controls.
- Inability to disentangle organic growth from acquisitions and divestitures.

And the truth resists a quick sound-byte!

- One recent analysis of "private equity transactions" — the kind of buyouts and takeovers Bain specialized in — noted that business in general is always both creating and destroying jobs, and that this is also true of companies that were buyout or takeover targets. However, job creation at the target firms is no greater than in similar firms that aren't targets, while "gross job destruction is substantially higher."

True in part…

1. Employment shrinks more rapidly/grows more slowly at bought-out facilities than at controls:
   - Big gap – about 6% of base employment over five years…

But that's not the whole story!

2. Bought-out firms also create more new jobs (mostly at new facilities).
3. Also more acquisitions and divestitures.
4. These effects largely (but not entirely) offset the job losses.
5. … and lead to greater productivity growth in ensuing years.

Davis, et al. [2014].

Evidence around productivity

- Total extra productivity growth in two years after deal: 1.99%.
- Drivers of growth:
  - Plant shutdowns/openings: 36%.
  - Improvements at existing plants: 72%.
  - Acquisitions: -8%.

Davis, et al. [2014].

Can we do anything?

- As limited partners?
- As general partners?

Strategies for limited partners

- Commit to long-term measures…
  - E.g., Future Fund's 10-year time-horizon.
- Focus on limited number of measures:
  - "As simple as possible but not too simple"—Einstein.
- Be directionally correct.
- Cultivate an "academic" mind-set.

LP strategies (2)

- Adopt general good governance principles:
  - Rewards and protection for staff risk-taking.
  - A professional board.
  - Encouraging team stability.
    - Much more in “Measurement, Governance, and Long-Term Investing: A World Economic Forum Report.”

Strategies for general partners

- Clearer reporting rules.
- Creation of industry certifying body to limit "gaming."
- Rethinking fundraising practices to reduce temptation:
  - E.g., more frequent, smaller fund-raises.

And more research…

- The Private Capital Research Institute:
  - Non-profit corporation seeking to encourage research into private capital and its dissemination.
  - Funded by major foundation.
  - Building (firewall-protected) database of funds and transactions for academic research.
    - Eager to talk to anyone interested.

Final thoughts

- Long-term investing is an area with fundamental measurement challenges.
  - Lack of knowledge and implementation issues make particularly tough.
- Nonetheless, LPs and GPs can take steps to address.

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