Guaranteed
Active Management

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R-Squared Risk Management

Investment Advice for Aunty Doreen

- What advice can we usefully give to our Aunty Doreen, who knows – rather vaguely – that we are in the "investment business", and wants to know what to do with the legacy that the late Uncle Sid left her?
- Giving her advice is very difficult, because we know she understands almost nothing about risk and return
- She is not, however, a complete fool, and certainly has common sense (which is not, actually, all that common, although that's a different story)
- **So we tell her to only invest in funds where the Manager has their own assets invested . . .**
- . . . . Berkshire Hathaway springs to mind

Is This Any Way To Run a Business?

- The traditional way in which the business of investment management is run is rather strange
- Surely any Fund Manager who believed in their ability to outperform the benchmark would want to be on some form of performance-related fees?
- But in fact, the usual business arrangements underlying the typical Actively Managed fund only serve to set up a conflict of interests between the Manager and the Client/Investor

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Starting Over & Start-ups

- Consider Investment Management from the point of view of an Entrepreneur

- Suppose we have a BYT (Bright Young Thing) who has developed their own successful and proprietary style of portfolio management

- In simple commercial terms, the Owner/Manager has developed an **Alpha manufacturing process**

- Now he or she needs to raise capital to fund it

Raising Capital - 1

- There are well-established Capital Markets for businesses trying to raise capital
- Capital is usually allocated by venture capitalists, angel investors or pension funds in one of two ways:
  - Equity (Owners)
  - Debt (Lenders)

Raising Capital - 2

- Whether a Capital-provider puts up Equity or Debt capital depends on how the risk (both downside and upside) of the business is shared
- Equity Capital bears the ultimate downside risk of the business failing, but gets all the upside profits
- Investors of Debt Capital are more secure; they have a prior claim on the assets of the business, but they only receive a pre-determined return (the fixed interest rate) over a finite period
  - They have limited upside return and limited downside risk

Bearing the Risk - 1

- However, in the traditional investment management arrangement, the Client/Investor takes on the entire risk of the **Alpha manufacturing process**
  - The Portfolio is effectively 100% “equity” financed by the Client/Investor’s capital
  - The Manager (and Owner of the process) works for a fixed salary and/or an asset-based fee
  - The Manager/Owner bears none of the risk that the **Alpha manufacturing process** fails to deliver

Bearing the Risk - 2

- This doesn't make any sense!

- Why would a rational Client/Investor want to bear any of the equity risk involved in this process if the Owner/Manager doesn't want to?

- And surely the only rational explanation for the Owner/Manager's attitude is that they have no real confidence in their **Alpha manufacturing process**?

A Distinctly Odd Arrangement

- Relative to other businesses, traditional investment management is very strange
- The Manager builds and owns the **Alpha manufacturing process**, but the Investor takes on all the "equity" risk
- The Owner/Manager should (surely?) want to have equity participation in their own process
- And potential Client/Investors should (surely?) have the choice of providing debt or equity capital, as they do in all other business ventures

Marketing Issues

- As a direct consequence of this strange arrangement, the bulk of the investment fund marketing effort consists of convincing potential Client/Investors to take on the "equity" risk of the Owner/Manager's **Alpha manufacturing process** that the Owner/ Manager apparently doesn't want to share . . . . . . ?
- In this light, the marketing of investment management is really an investment banking function
- The solution is Guaranteed Active Management

Guaranteed Active Management Structure

Limited Partnership

Limited Partner	General Partner
Provides the “Debt” Capital	Provides the “Equity” Capital

Limited Partner

- Provides the bulk of the assets (around 90%)
- The Limited Partner's assets are invested in the same portfolio as the assets of the General Partner
- Guaranteed Return = Benchmark + Fixed Premium
- Guarantee backed by the General Partner's assets
- The Limited Partner pays no fees

General Partner

- Provides the remainder of the assets (initially 10%)
- The General Partner's assets are invested in the same portfolio as the assets of the Limited Partner
- The General Partner's assets serve as collateral, supporting the guarantee to the Limited Partner
- The General Partner is therefore bearing all the risk of the **Alpha manufacturing process** . . .
- . . . and retains all the profits in excess of the Guaranteed Return paid to the Limited Partner

No, it's not another Madoff!

- The General Partner's assets serve as collateral to support the Guarantee to the Limited Partner
- Initially, they will be about 10% of the total fund value
- These assets are the **Risk cushion** that serve to protect the Limited Partner from possible poor performance of the **Alpha manufacturing process**
- The actual assets are held by a third party, such as a Custodian Bank, and the Manager only acts as an Investment Advisor, stipulating the trades to be done

The Investment Mandate

- The mandate links the maximum Tracking Error (T.E.) the fund can have to the size of the **Risk cushion**
  - The larger the **Risk cushion**, the larger the T.E. can be
- The mandate also stipulates the minimum level of the **Risk cushion**, below which the fund is liquidated
  - If this happens, the Limited Partner receives their capital plus the Guaranteed Return up to that point
  - The General Partner only gets whatever is left – and therefore bears all the loss from the failure of the **Alpha manufacturing process**
- Can we really do this?

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Do Active Managers have Skill?

- It is often said that the markets are so efficient that it is impossible to beat benchmarks consistently
- It is also said (most often by finance academics) that active managers don’t (or even can’t) have Skill
- Their ‘proof’ is the fact that few managers outperform their benchmarks consistently . . .
- . . . even though this flies in the face of common sense
- Active managers don’t generate better performance because they don’t manage their portfolio risk properly
- So the returns due to their Skill are lost in the Noise from their unintended bets

A Real Example - Expected Returns

- US Small Cap 130-30 fund with a difference
- Three components to the **Alpha manufacturing process**
  - Multi-factor Stock Selection model updated weekly, covering nearly 1,800 stocks
  - Manager selection ("cherry-picking") from the Buy and Sell Lists, based on idiosyncratic information
  - Qualitative "expected returns" on 26 Industries:

Like **Dislike** **Neutral**

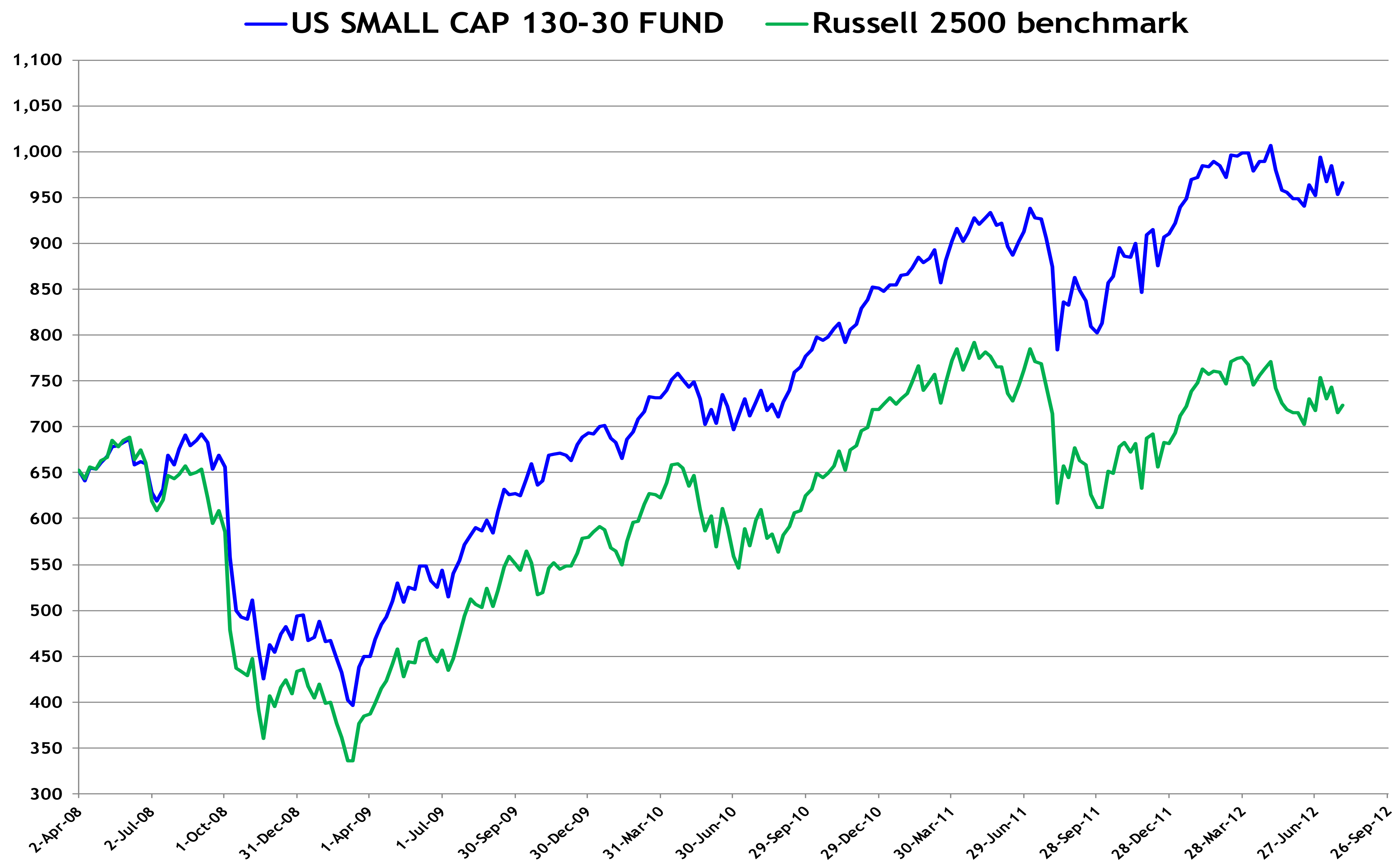
A Real Example - Risk Management

- Portfolio Rebalancing and Risk Management
  - Each week the Stock Selection model is updated
  - The (fundamental) managers update their Industry views
  - The managers select stocks to trade from the Buy and Sell lists, or from the existing portfolio
  - We then run a factor risk decomposition of the portfolio, and construct an overlay of Industry ETFs to adjust the Industry views to be aligned with the managers views

- Turnover is fairly low, usually between 50-100% p.a.

- The key point is that around 95% of the risks incurred are deliberate – there are almost no unintended bets

Actual Performance since April 2008



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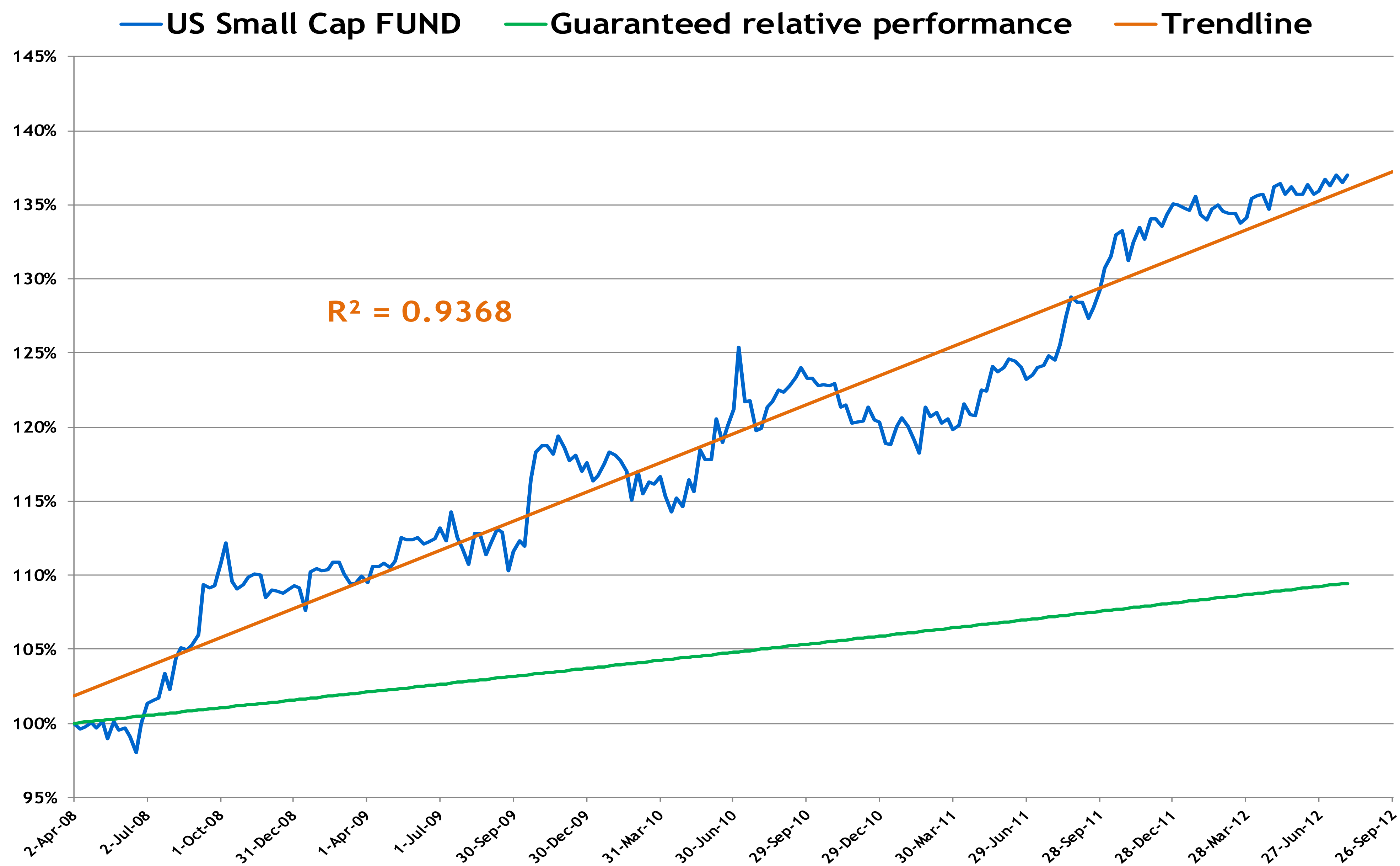
Cumulative Relative Performance



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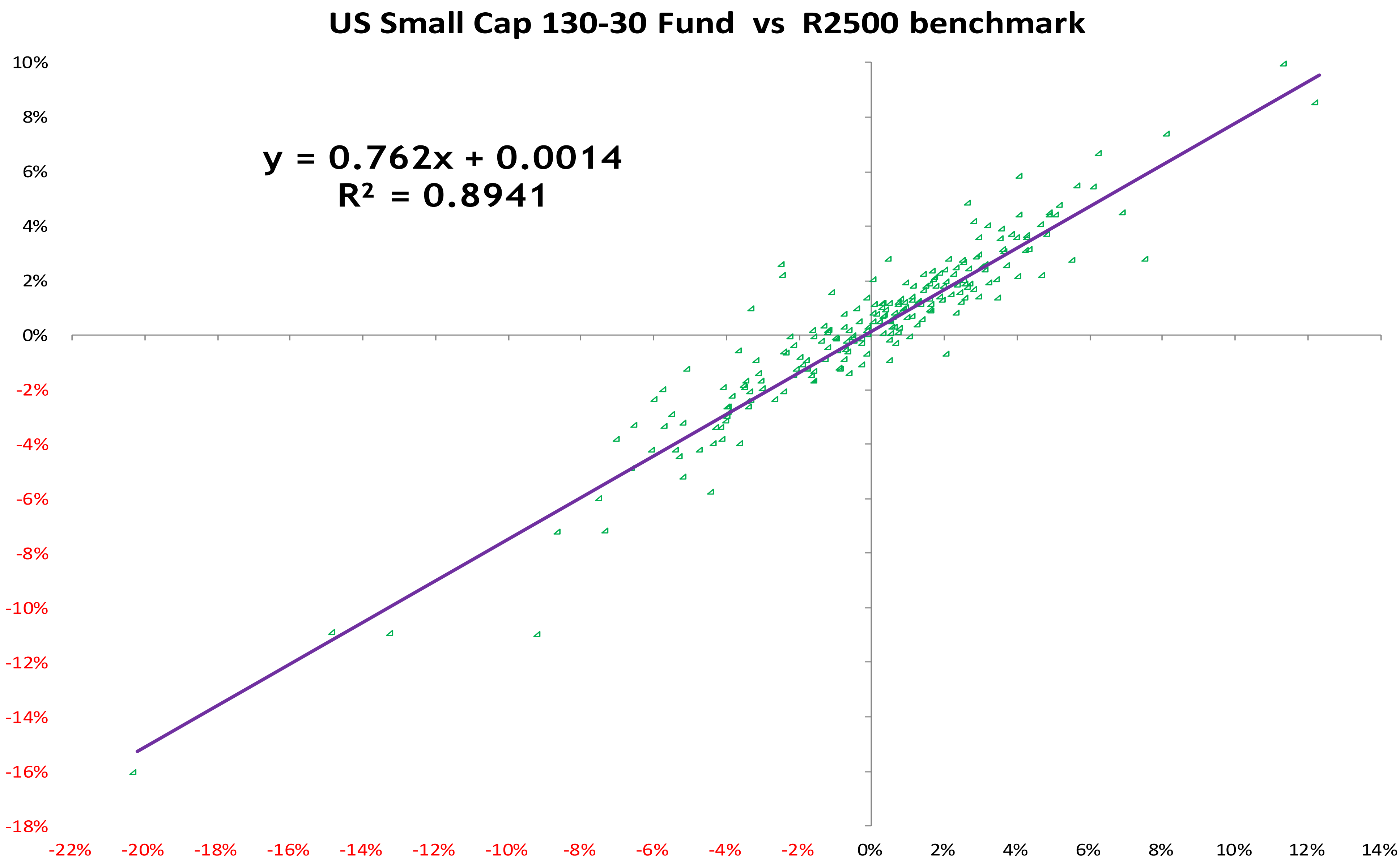
Portfolio vs. Benchmark returns



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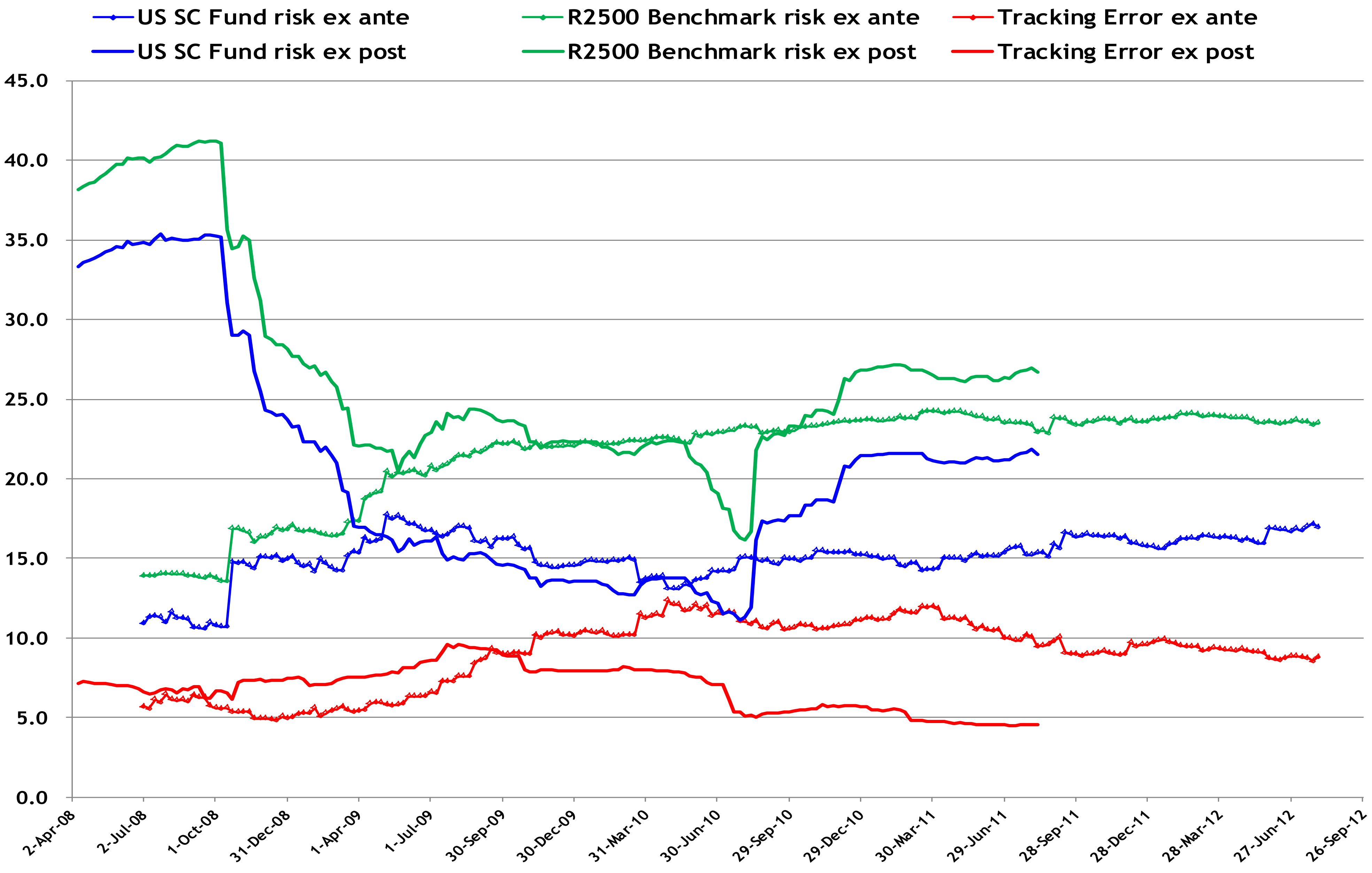
Portfolio and Benchmark risk



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Comments on Performance and Risk

- This was a particularly unhelpful time to launch a new fund, just six months before the Credit Crunch!
- Both the Portfolio and the Benchmark took a big hit in October 2008, although the fund still outperformed
- The Portfolio has had a significantly lower risk than the Benchmark, with an average beta of 0.76
- The *ex post* risk values are based on the subsequent one year period after the *ex ante* forecast
- While the Portfolio and Benchmark risk forecasts have obviously been thrown off by the Credit Crunch, the Tracking Error has usually been fairly close

Annualised performance April 1st 2008 to August 1st 2012			
Absolute values	Return	Risk	Sharpe Ratio
Russell 2500	2.42%	27.57%	0.088
130-30 Fund	9.43%	22.22%	0.425
Relative to Benchmark	Return	Tracking Error	Information Ratio
130-30 Fund	7.02%	6.72%	1.044

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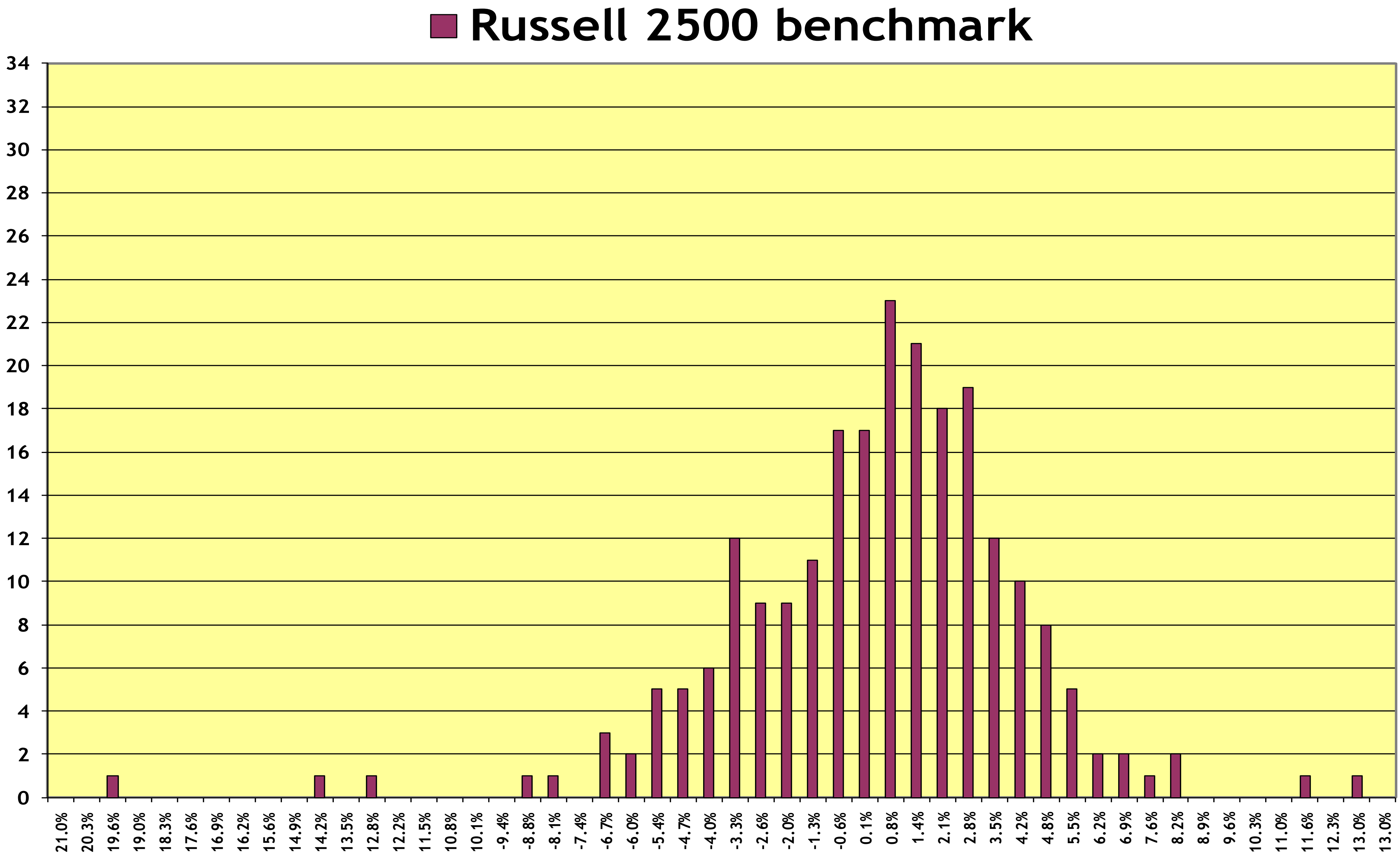
Weekly performance April 1st 2008 to August 1st 2012		
Absolute values	Return	Risk
Russell 2500	0.046%	3.82%
130-30 Fund	0.181%	3.08%
Relative to Benchmark	Return	Tracking Error
130-30 Fund	0.135%	0.93%

Distribution of Weekly Returns



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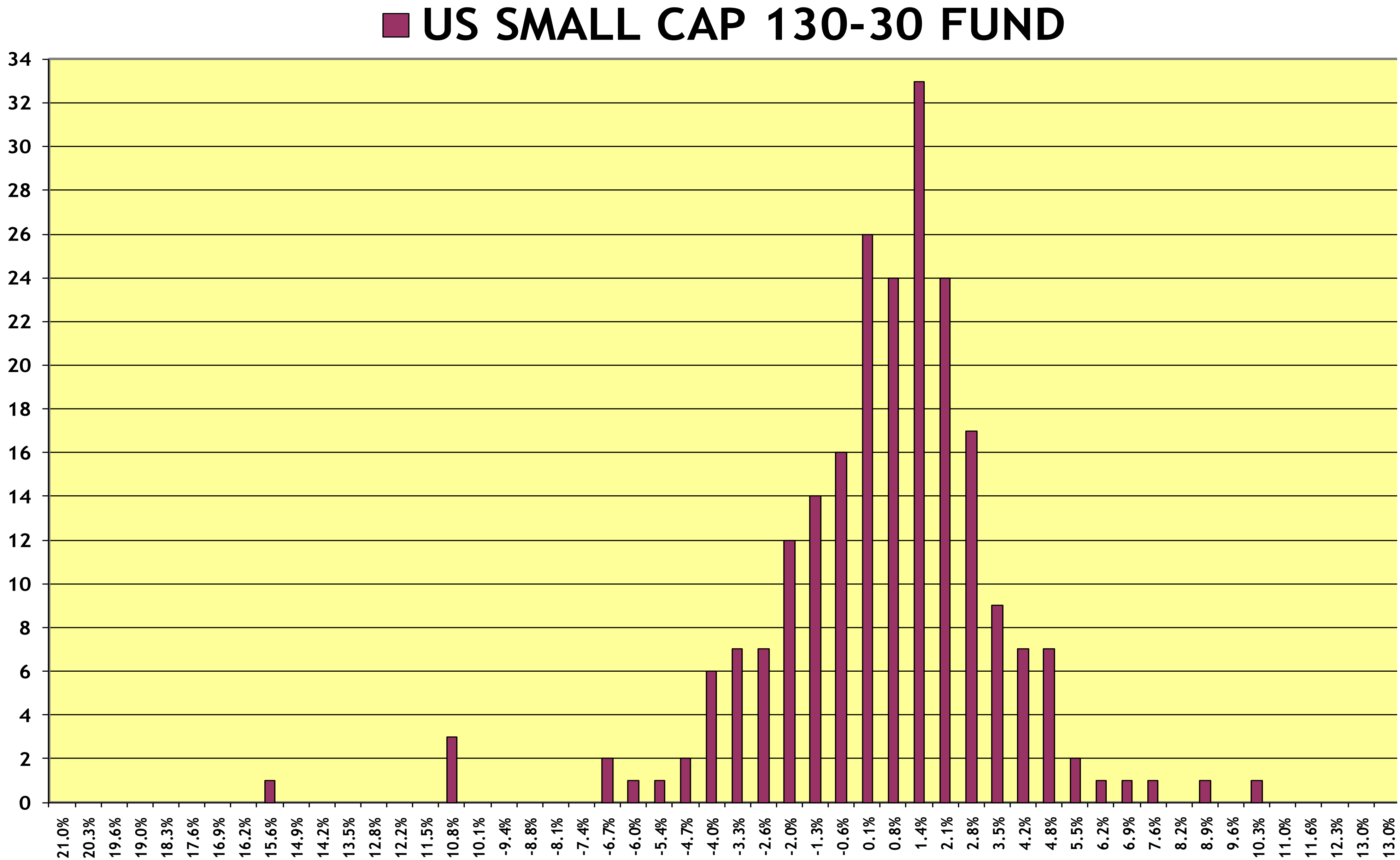
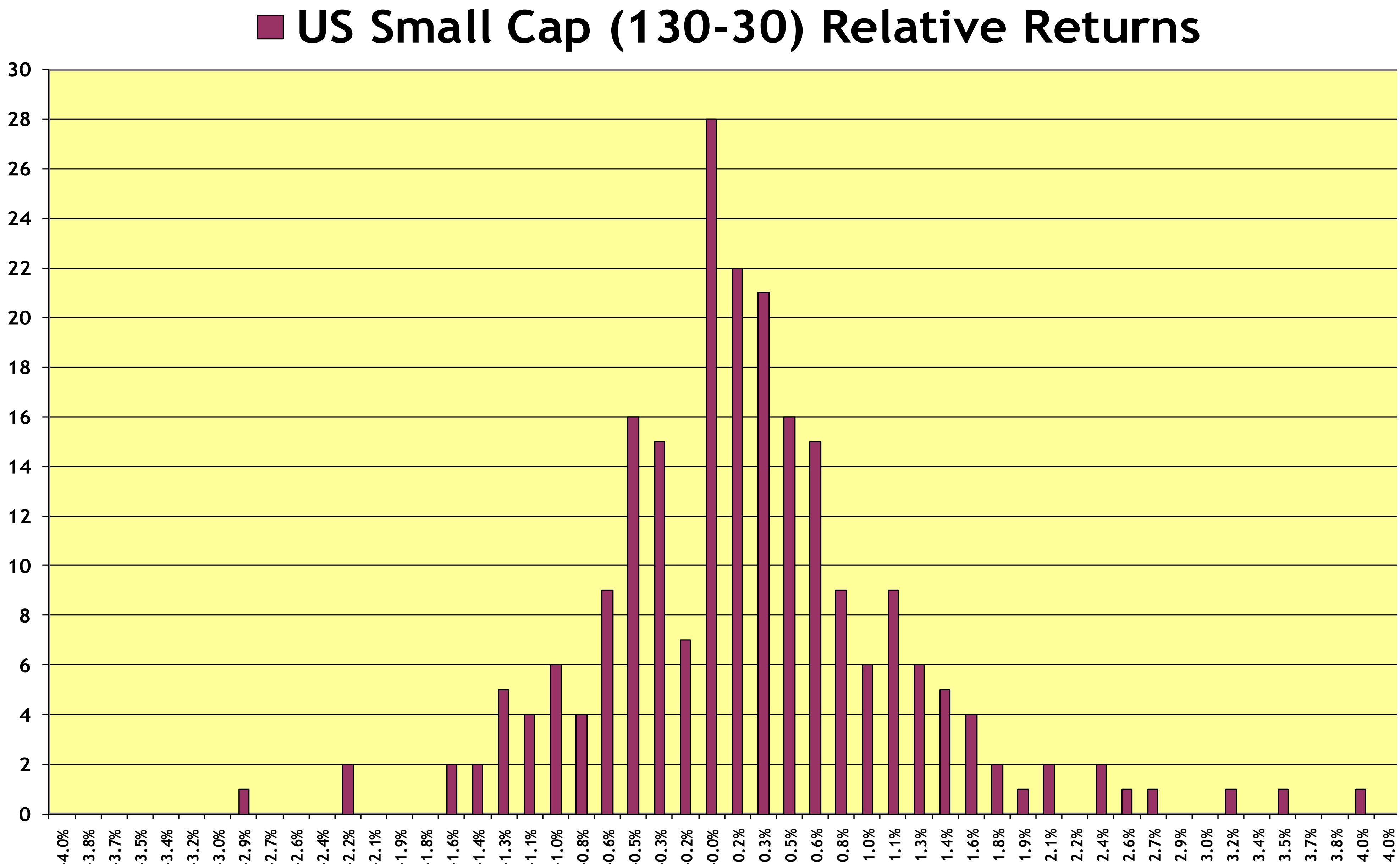
Distribution of Weekly Returns



Distribution of Relative Returns



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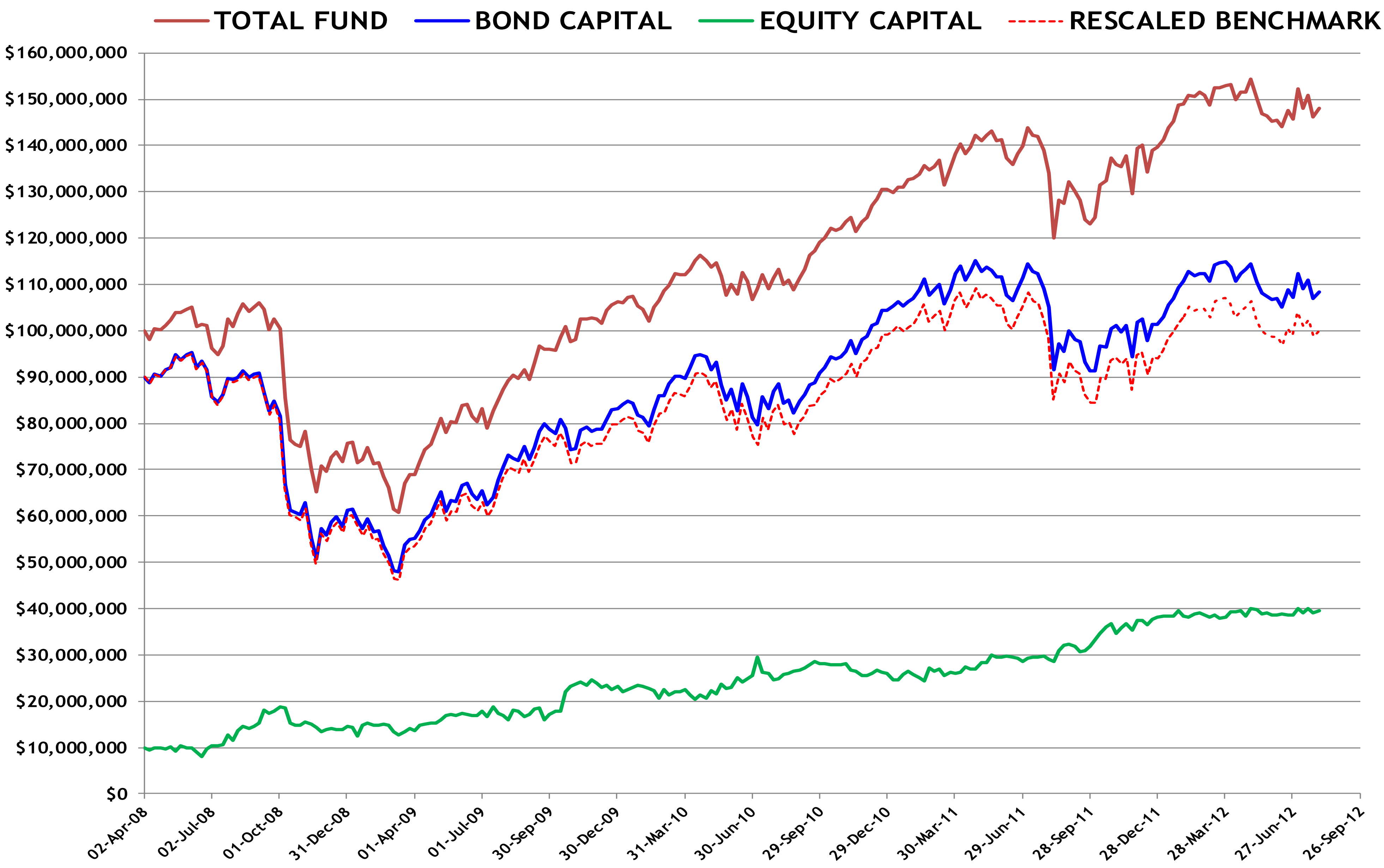
Guaranteed Active Management example

- General Partner (the Manager) invests $10 million
- Limited Partner (the Client) invests $90 million
- Initial Total Fund value is $100 million
- Limited Partner is Guaranteed the benchmark return + 4bps per week (= 2.1% p.a.) and pays <u>no fees</u>
- Initial **Risk cushion** = 10% of the Fund Value
- Fund is liquidated if the **Risk cushion** falls below 3%
  - Limited Partner gets their Capital plus Guaranteed Return
  - General Partner takes a substantial loss on their investment

Guaranteed Active Management example



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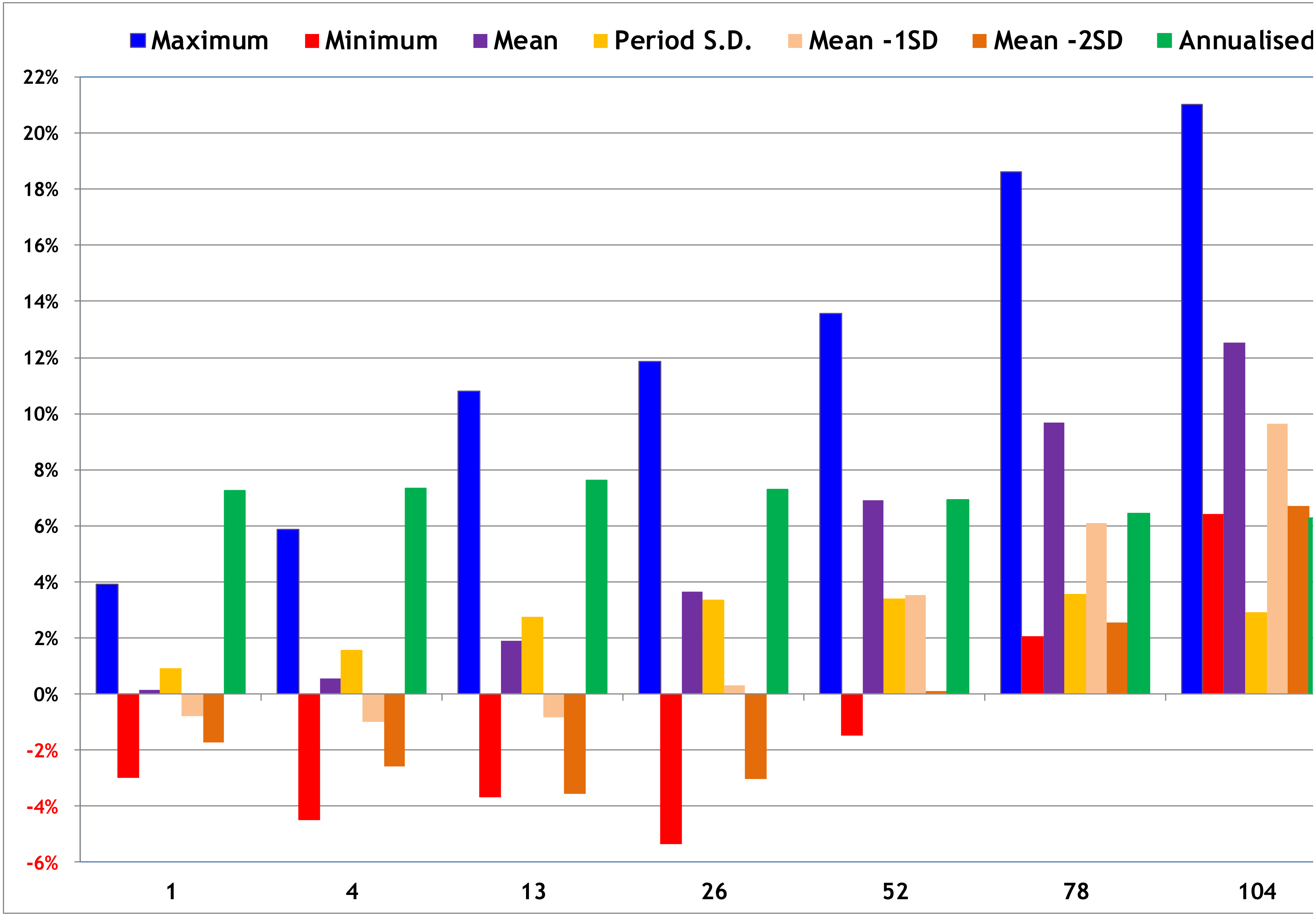
Performance and Drawdowns



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Performance and Drawdowns

Weeks	130-30 fund	1	4	13	26	52	78	104
Count		226	223	214	201	175	149	123
Maximum		3.93%	5.88%	10.79%	11.87%	13.59%	18.62%	21.04%
Minimum		-2.99%	-4.48%	-3.68%	-5.35%	-1.48%	2.07%	6.41%
Mean		0.139%	0.563%	1.90%	3.65%	6.91%	9.66%	12.55%
Annualised		7.25%	7.32%	7.62%	7.30%	6.91%	6.44%	6.27%
Mean -1SD		-0.79%	-1.00%	-0.84%	0.30%	3.52%	6.10%	9.62%
Mean -2SD		-1.72%	-2.57%	-3.57%	-3.04%	0.12%	2.54%	6.69%
Period S.D.		0.93%	1.57%	2.74%	3.35%	3.40%	3.56%	2.93%
Annualised	Std. Dev.	6.72%	5.65%	5.48%	4.73%	3.40%	2.91%	2.07%
Number of	Std. Dev.s	-3.36	-3.22	-2.04	-2.69	-2.47	-2.13	-2.09
Serial Correlation		-0.191	0.658	0.875	0.912	0.915	0.914	0.903
% below Mean - 1SD		11.5%	11.7%	15.9%	14.9%	20.6%	20.1%	17.9%
% below Mean - 2SD		1.3%	0.9%	0.9%	1.0%	0.6%	0.7%	0.8%

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Comments - 1

- Once an Investor has done their asset allocation, and has decided on the amount they wish to invest in a particular equity category, they have three choices:-

- Hold a relatively cheap, passive index fund, and just bear the benchmark risk – and get benchmark return
- Hire an active manager, pay higher fees, bear higher risk and still have a good chance of under-performance
- Use Guaranteed Active Management, with the same risk as an index fund, no fees and guaranteed out-performance

- It does rather seem like a no-brainer, doesn't it?

Comments - 2

- The Limited Partner is happy; his investment has outperformed the benchmark by +2.1% a year for over four years (so far), and he has paid no fees
- The General Partner started with $10,000,000 and now has an investment worth around $40,000,000
- As the **Risk cushion** grows, the Manager can take on more Limited Partners, thereby leveraging up the profits from the **Alpha manufacturing process**
- An alternative structure might be for this to be run by an Insurance company, using its balance sheet as the collateral for the Guarantee

Comments - 3

- It is, of course, entirely possible that some Investors might believe in the **Alpha manufacturing process**

- They may therefore wish to invest alongside the General Partner as part of the **Risk Cushion**, bearing the risk and reaping their share of the rewards

- This would give the Owner/Manager greater capacity than he or she could support with their own assets

- Such Clients would be charged a small fixed fee of perhaps 1%, to cover administration costs, and a performance-related fee similar to a hedge fund

Concluding Questions

- ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ! ! ! ! ! ! ! ! ! ! !

- Can anyone justify the behaviour of either the Owner/Managers or the Client/Investors?
  - (On rational grounds, that is)

- Can anyone give any good reasons why the business of Fund Management shouldn't be re-structured along these lines ?

- Would you offer such a Guarantee . . . ?

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