Challenges in Fund Management Institutional Perspective

Flame University
July 13, 2017

These are my personal views, not that of my employer. Nothing in this presentation is to be treated as a recommendation.

Today

- The Seven Deadly Sins of Fund Management
- Institutional challenges
- What's your Advantage?

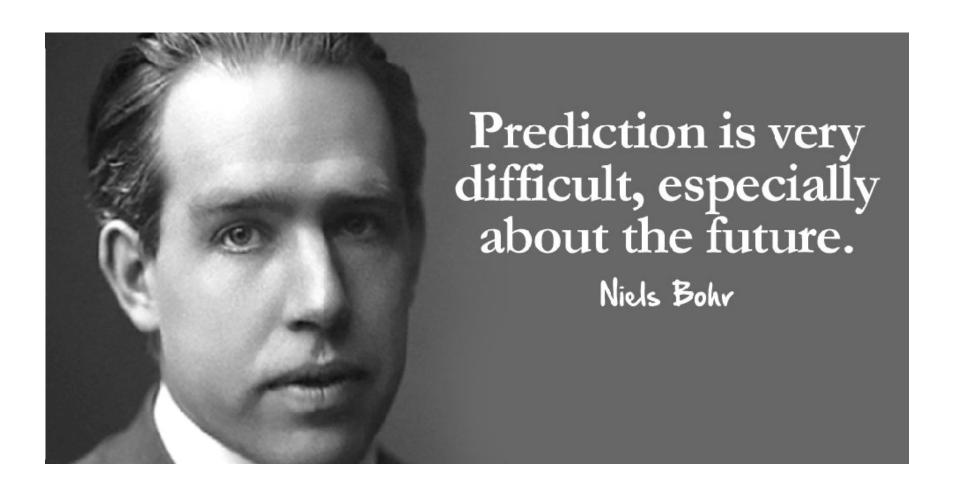
The seven deadly sins

- The folly of forecasting
- The illusion of knowledge
- Listening to company management(!)
- Thinking you can out-smart everyone else
- Short time horizons and overtrading
- Believing everything you read
- Group decisions

Recommendation



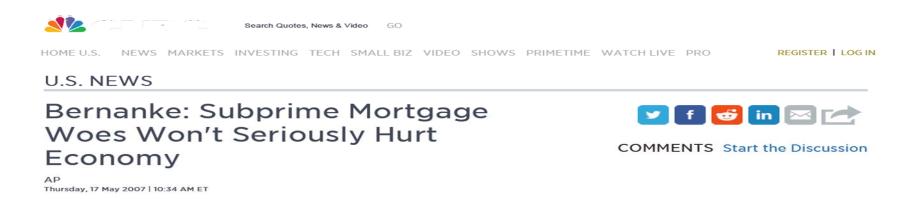
The folly of forecasting



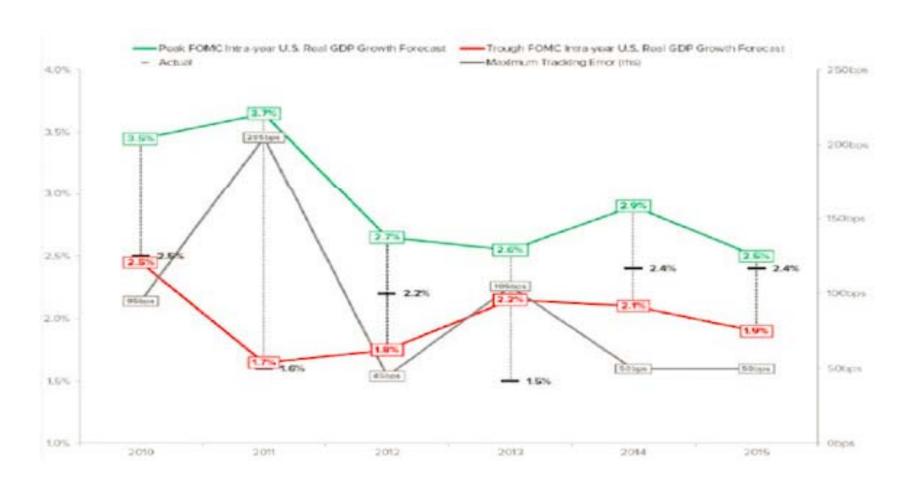
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Subprime Impact

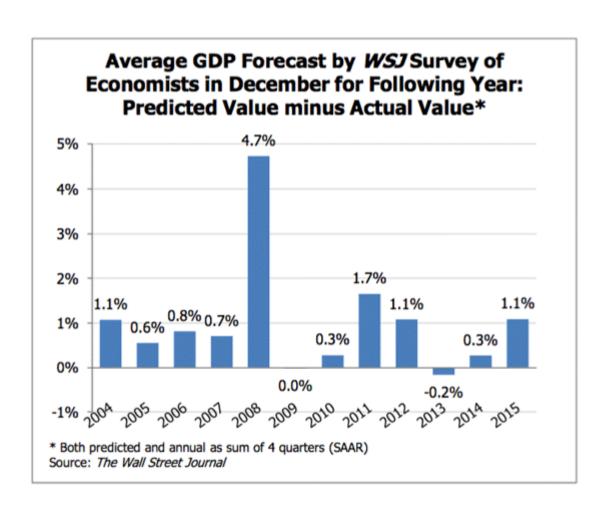
• At this juncture, however, the impact on the broader economy and financial markets of the problems in the subprime market seems likely to be contained- FED Chairman Ben Bernanke, March 28, 2007



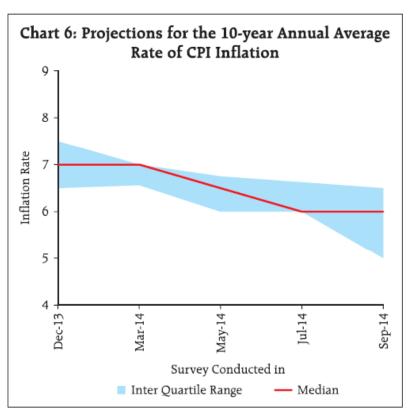
FED forecasts

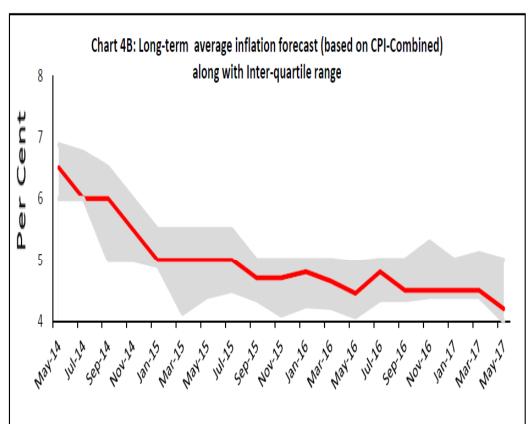


How do the economists fare?

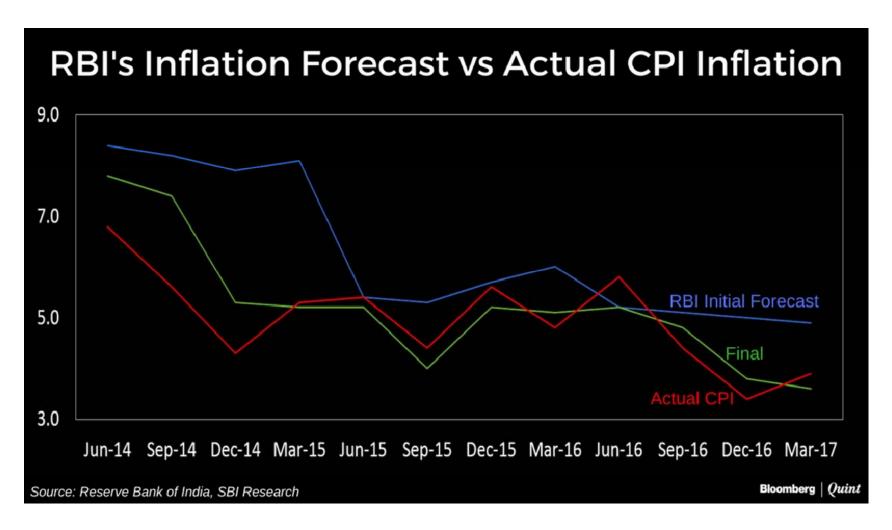


India inflation forecasts

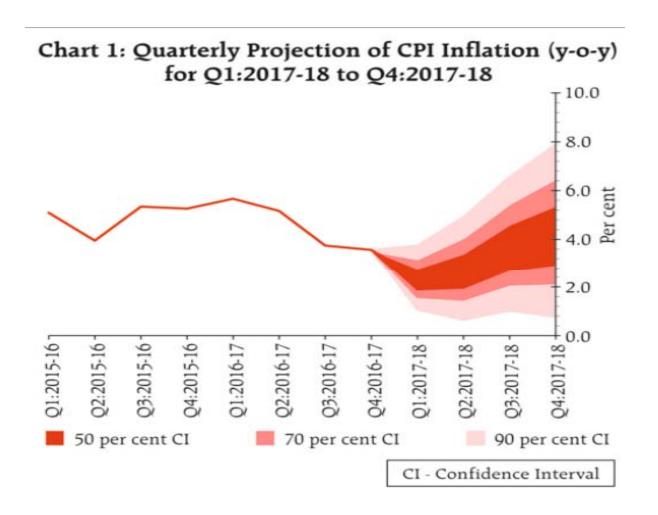




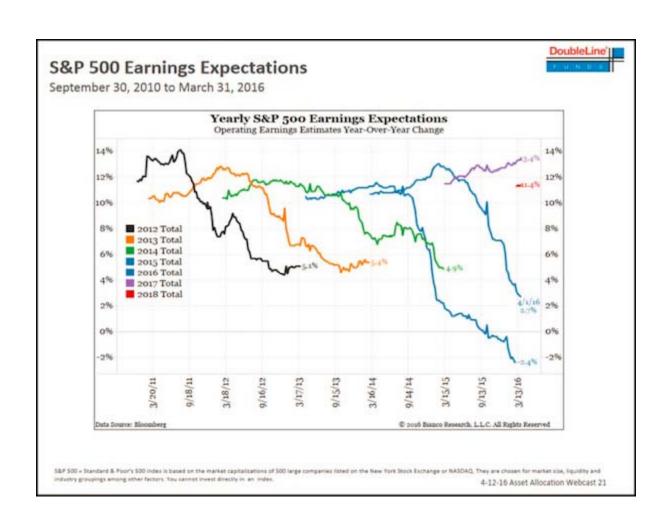
RBI forecasts



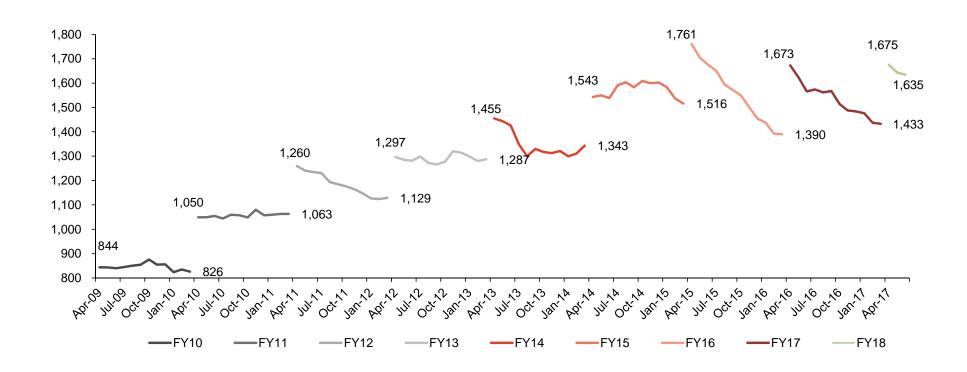
Good way to forecast - Ranges!



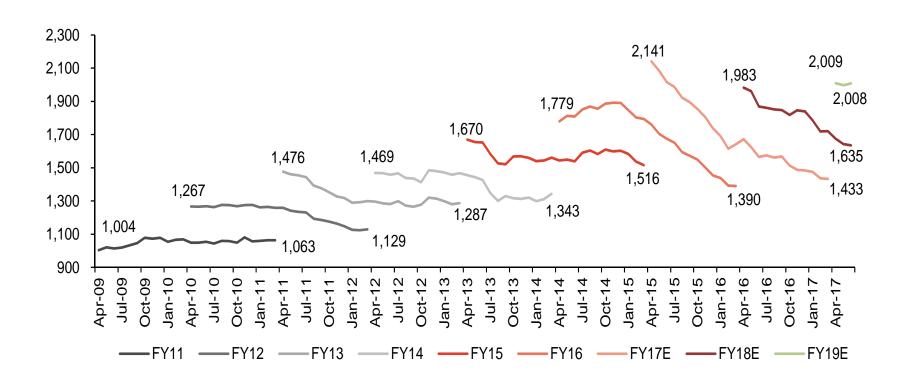
What about analyst forecasts?



Sensex 1 year forward EPS estimates

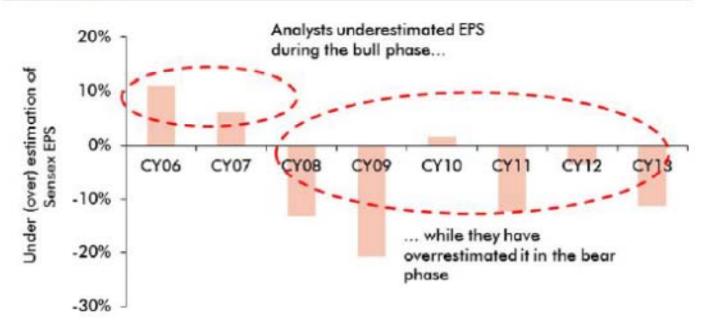


Sensex 2 years forward EPS estimates



It's a two way street

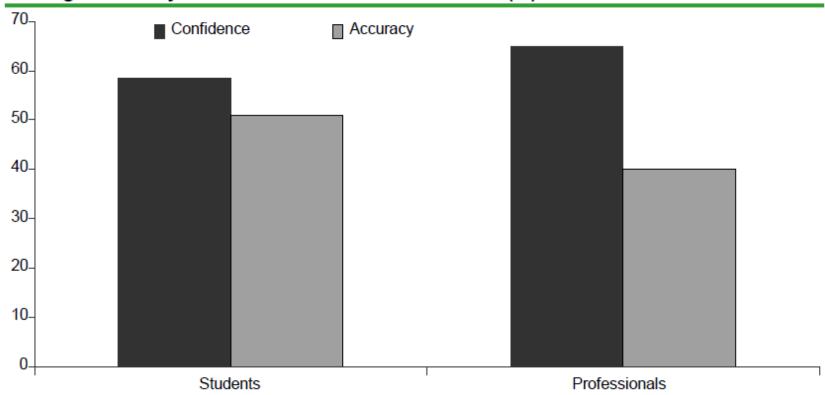
Analyst 'skepticism' in the bull phase vs 'hope' in the bear phase



Source: Bloomberg, Ambit Capital Research; Note: The exhibit above plots the percentage difference between actual EPS for the year vs its estimate 12 months ahead based on CY end numbers.

Select outperformers from a pair of stocks

Average Accuracy and confidence on stock selection (%)



Source: Torngren and Montgomery (2004)

"Those who have knowledge don't predict; Those who predict don't have knowledge"

Lao Tzu, a 6th century BC poet

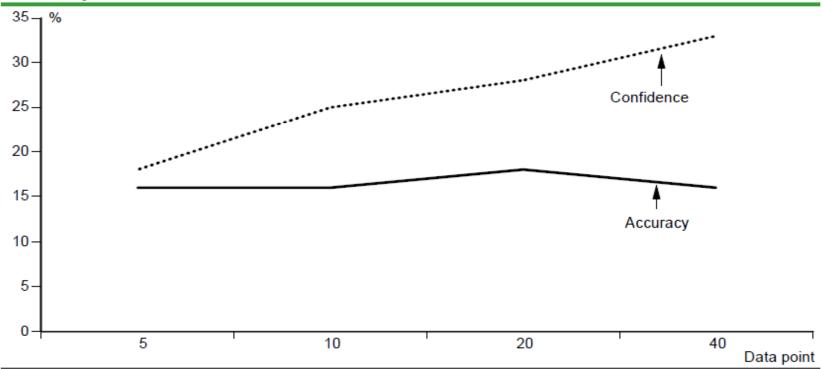
The illusion of knowledge or Is more information better information?



"Let's hold off making a decision until we have even more information we don't really need."

More data = Better forecast or higher confidence?

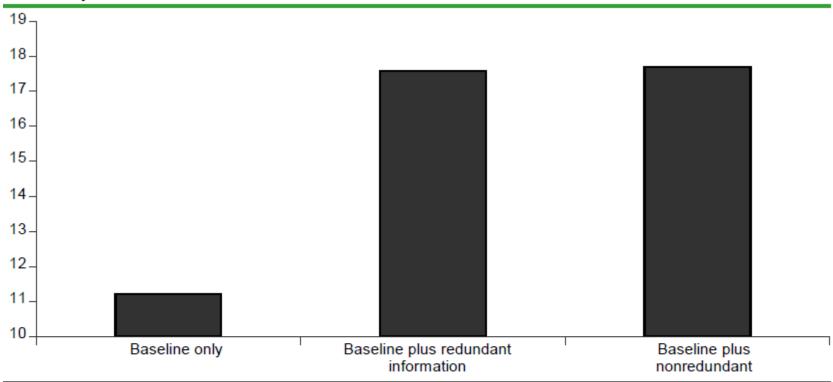
Accuracy vs. confidence for bookmakers as a function of the information set



Source: Slovic (1973)

Less is better?

Mean square error of forecast

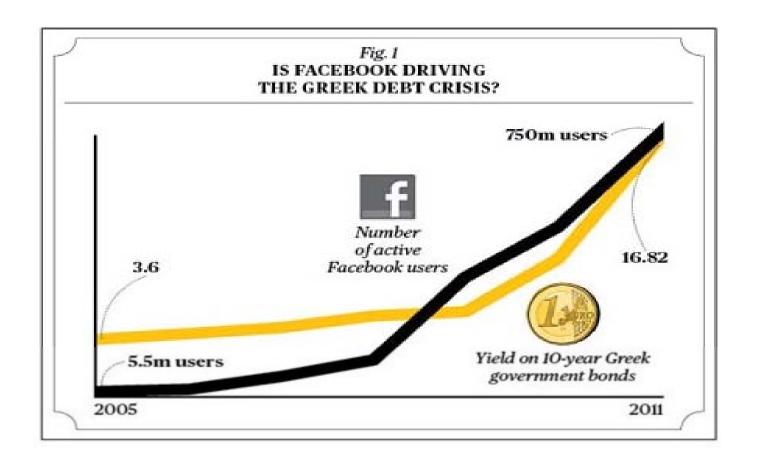


Source: adapted from Davis et al (1994)

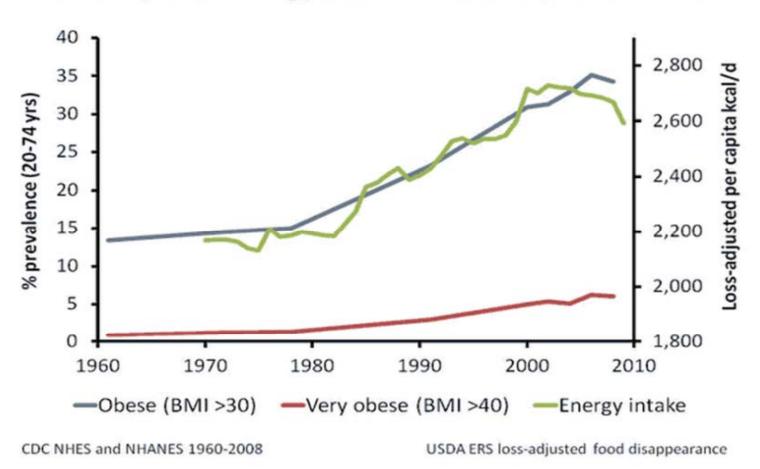
Forecast next quarter's earnings for different firms

Baseline data: past three quarters of EPS, net sales and stock price

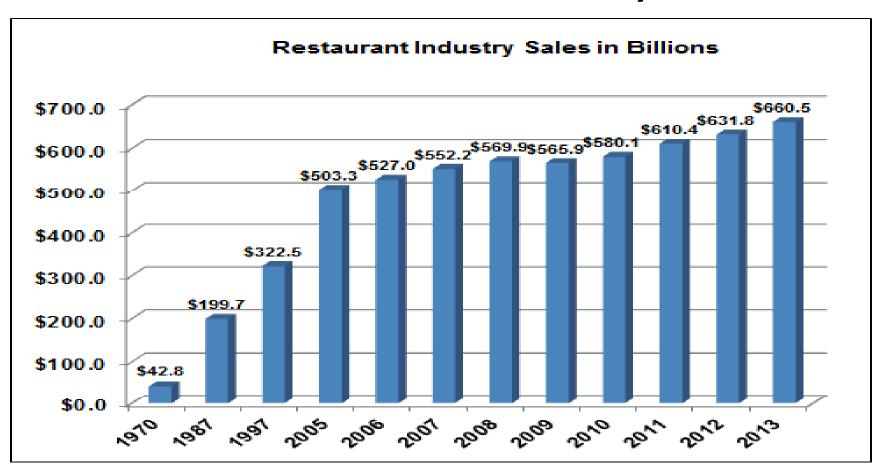
Correlation is not Causation

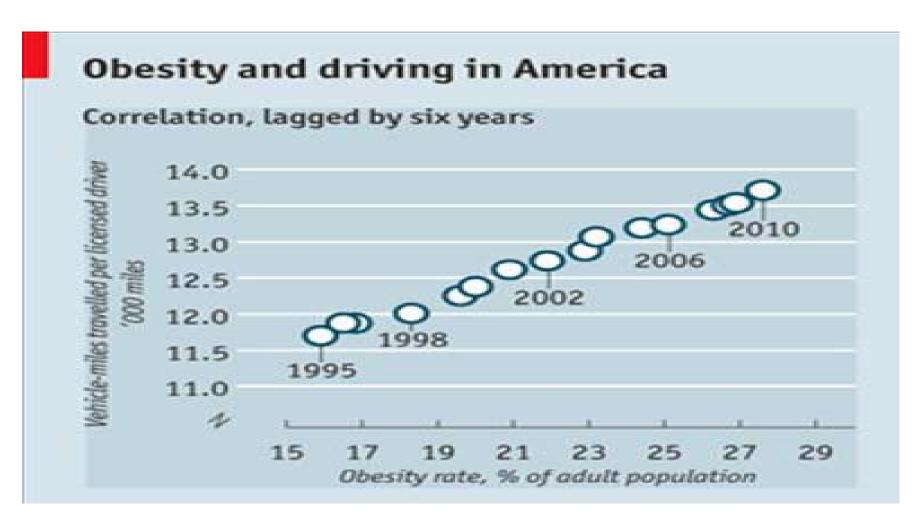


Obesity and Energy Intake in the US, 1961-2009



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Household Income and Obesity ²⁷						
	Obesity					
Household Income	Percent of Non-Obese Adults (BMI < 30) (Based on 2008-2010 Combined Data)	Percent of Obese Adults (BMI ≥ 30) (Based on 2008-2010 Combined Data)				
Less than \$15,000	66.2%	33.8%				
\$15,000 to less than \$25,000	68.2%	31.8%				
\$25,000 to less than \$35,000	70.3%	29.7%				
\$35,000 to less than \$50,000	70.5%	29.5%				
\$50,000 or more	75.4%	24.6%				

Do monsoons affect demand?

Year	Occurrence	Impact	Monsoon	% chg. in	Growth of	Growth of	Growth
			as a % of	foodgrain	consumer	FMCG sector	of
			Long	output	durables	(Y-o-Y)	automo
			Period	from	sector(Y-o-Y)		bile
			Average	previous			sector
				year			(Y-o-Y)
FY 08	La Nina	Excess	110%	6.20%	12 %	20%	-5%
FY 09	La Nina	Above	105%	1.6%	110/	1.40/	0.70/
		Normal			11%	14%	0.7%
FY 10	El Nino	Severe	79%	-7%	21%	25%	26%
		drought			21/0	2370	20%
FY 11	La Nina	Normal	100%	12.1%	16%	15%	26%
FY 12	La Nina	Normal	104%	6.1%	< 1%	6%	12%
FY 13	Mild El	Below	92%	-0.80%	10-15%	14-15%	
1113	Nino	Normal	3270	0.0070	10 1570	111370	3%
FY 14	Neutral	Above	106%	3.1%	5-7%	8-9%	407
		Normal					4%
FY 15	Neutral	Mild	88%	-5.30%	15-20%	5-6%	70/
		drought					7%

Source: Skymet, Ministry of Agriculture, SIAM, Indian Brand Equity Foundation, Consumer Electronics and Appliances Manufacturers Association (CEAMA), Hindustan Unilever Ltd

The **fox** knows many things, but the **hedgehog** knows one big thing

-Isaiah Berlin

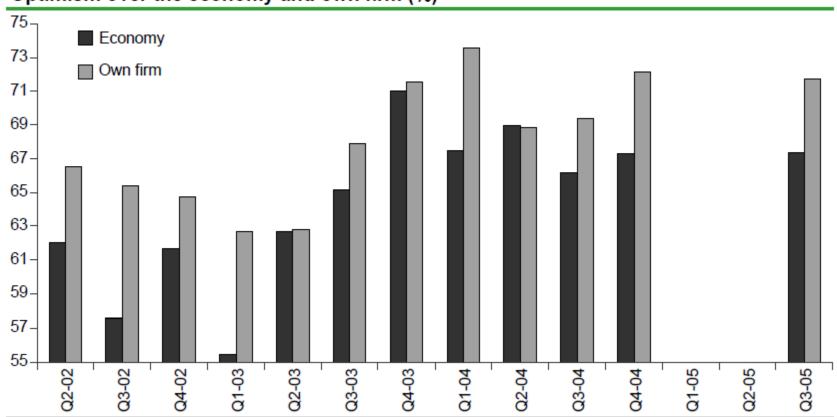
Listening to company management?



"I make a motion that we adjourn and quietly leave the room before we screw this up."

Illusion of control driving overconfidence

Optimism over the economy and own firm (%)



Source: Duke survey

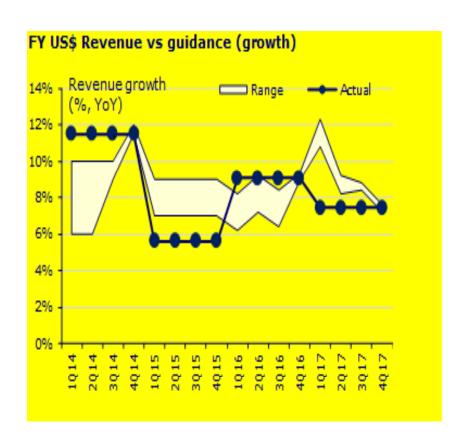
Guidance?

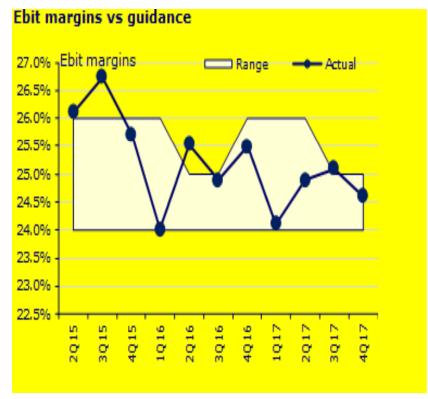
Guidance is useless! - recurring profits vs outcomes

Date of estimate	Year to	Estimated profits A	Outcome B	Reality gap B-A
Mar-91	Mar-92	3.2	-20.3	-23.5
Mar-92	Mar-93	-0.1	-23.9	-23.8
Mar-93	Mar-94	11.6	-20.7	-32.3
Mar-94	Mar-95	0.5	17.1	16.6
Mar-95	Mar-96	17.4	25.5	8.1
Feb-96	Mar-97	17.3	25.1	7.8
Mar-97	Mar-98	13.6	-7.9	-21.5
Feb-98	Mar-99	6.6	-32.0	-38.6
Mar-99	Mar-00	25.6	18.4	-7.2
Mar-00	Mar-01	29.2	48.3	19.1
Mar-01	Mar-02	5.8	-56.9	-62.7
Mar-02	Mar-03	101.7	102.4	0.7
Mar-03	Mar-04	16.8	31.3	14.5
Mar-04	Mar-05	15.3	24.5	9.2

Source: Nikkei, DrKW Macro research

IT company





Engineering company

	E&C Inflows	Growth		performance	E&C Sales	Growth		performance
Year	(Rs bn)	Guidance	Actual		(Rs bn)	Guidance	Actual	
2006	224	20%	50%	1	148	10%	12%	1
2007	306	30%	37%	1	176	20-25%	19%	\
2008	420	30%	37%	1	249	NA	41%	⇒
2009	516	30-35%	23%	-	339	30-35%	36%	1
2010	696	25-35%	35%	1	370	15-20%	9%	\
2011	798	25%	15%	₩	439	20%	19%	⇒
2012	706	5%	-11%	#	532	25%	21%	\
2013	880	15-20%	25%		615	15-20%	15%	\Rightarrow
2014	1,125	20%	28%	1	719	15-20%	17%	\Rightarrow
2015	1,367	20%	22%	1	729	15-20%	1%	\
2016 (rev.)	1,150	10-15%	-16%	#	803	10-15%	10%	\Rightarrow
2017 (rev)	1,201	10%	4%	₩	870	10%	8%	₩

Source: Company, Kotak Institutional Equities estimates

Point to note

Confirmation bias

- Check the past data before you meet
- Speak to somebody with a different view

Outsmarting everyone



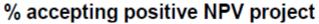
 "The third degree where we devote our intelligences to anticipating what average opinion expects average opinion to be".

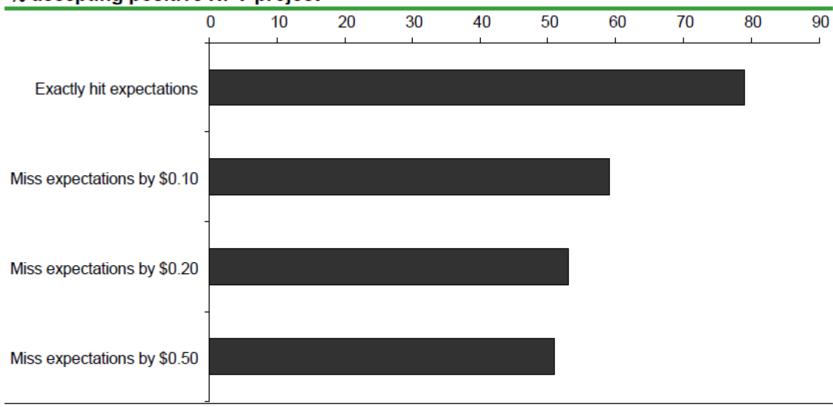
 When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance

The Company plays the game too...

- Your cost of capital is 12%.
- A new opportunity arises that offers a 16% internal rate of return
- What is the probability that your company will pursue this project in each of the following Scenarios
 - (i) exactly hit consensus earnings
 - (ii) miss consensus by \$0.10
 - (iii) miss consensus by \$0.20
 - (iv) miss consensus by \$0.50

"It makes it easier for analysts/investors to predict future earnings"!





Source: Harvey, Graham and Rajgopal (2005)

EQ > IQ

- You don't need to be a rocket scientist. Investing is not a game where the guy with the 160 IQ beats the guy with 130 IQ
- Success in investing doesn't correlate with I.Q. once you're above the level of 25. Once you have ordinary intelligence, what you need is the temperament to control the urges that get other people into trouble in investing.

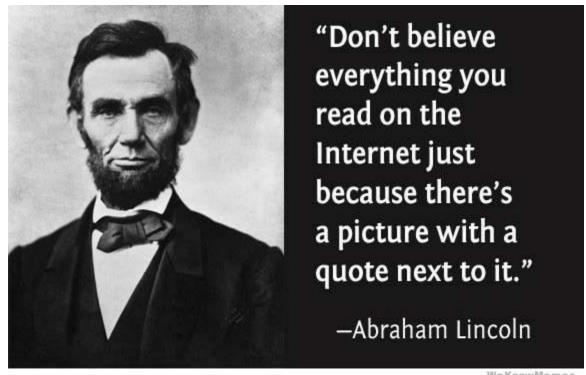
Warren Buffett

Short time horizons and overtrading



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Believing everything you read



WeKnowMemes

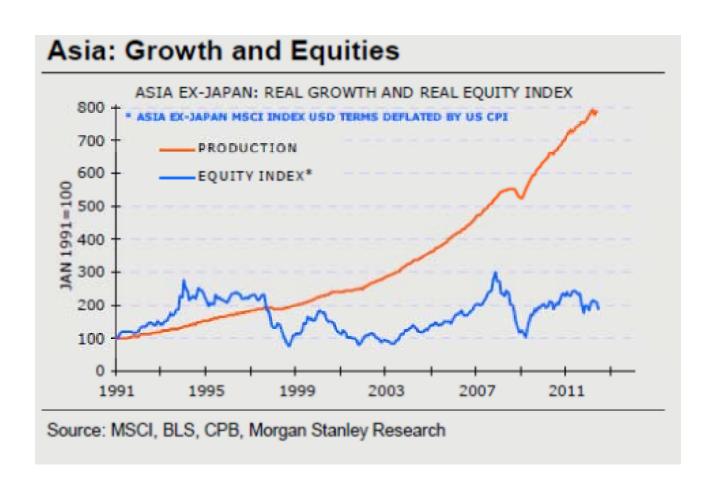
Beware the narrative

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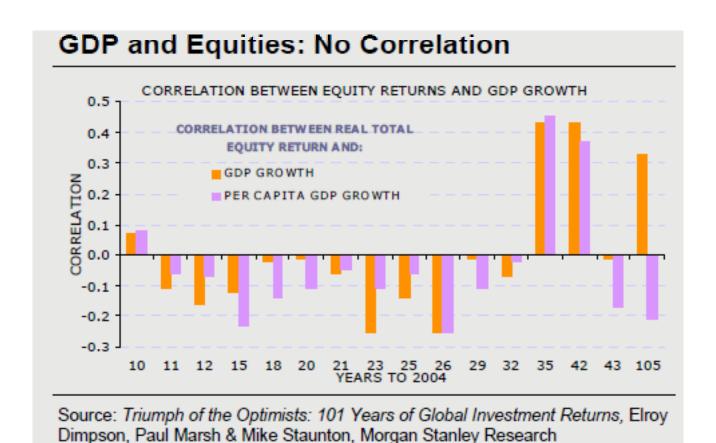
GDP growth vs returns



Asia



The World



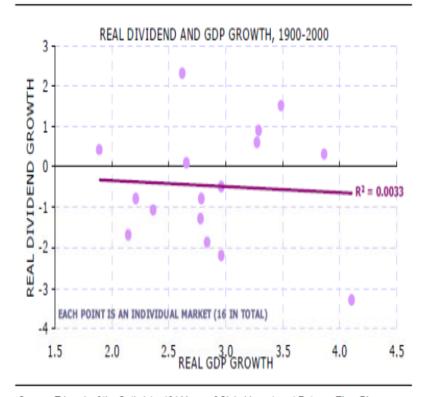
Why is this happening?

Mind the Gap: Earnings and EPS Dilution

PAST 40 YEARS, WHERE AVAILABLE. BASED ON DATASTREAM INDICES 0 10 20 30 PAST 40 YEARS, WHERE AVAILABLE. BASED ON DATASTREAM INDICES AVERAGE EARNINGS GROWTH

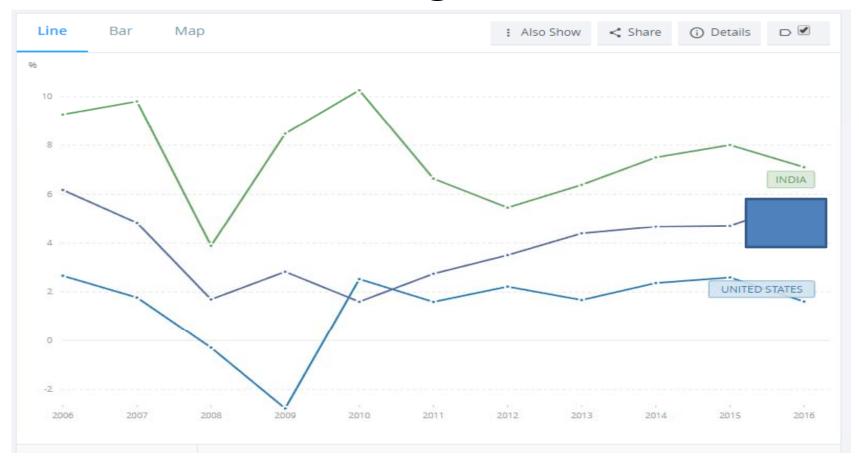
Source: DataStream, Morgan Stanley Research

Dividends and GDP: No Link



Source: Triumph of the Optimists: 101 Years of Global Investment Returns, Elroy Dimpson, Paul Marsh & Mike Staunton, Morgan Stanley Research

GDP growth

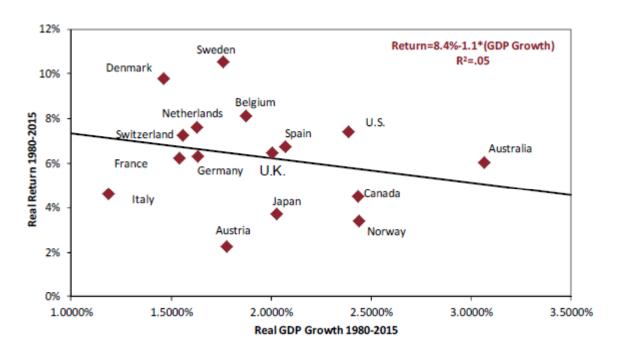


Markets @ 2007-2017



Data everywhere...

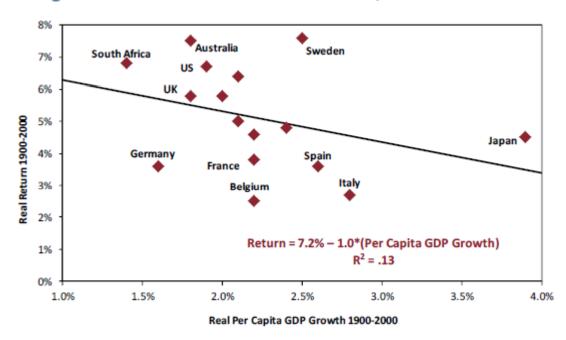
Exhibit 8: GDP Growth and Stock Market Returns for the Developed Markets



Source: GMO, Datastream, MSCI; Data from 1980-2015

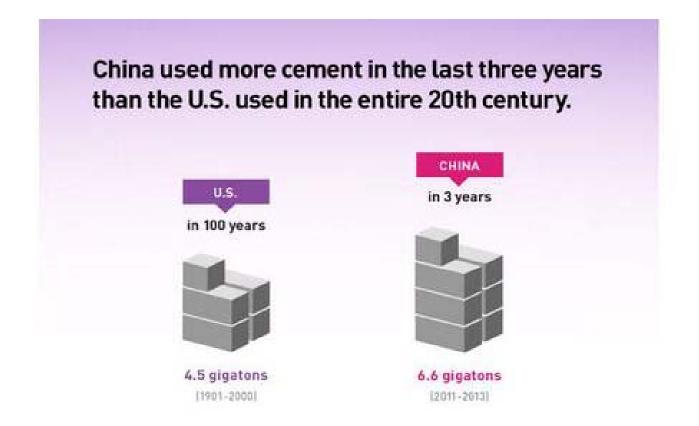
...but nobody cares

Exhibit 9: Long-Term Stock Market Returns vs. GDP, 1900-2000



Source: Dimson, Marsh, and Staunton, Triumph of the Optimists

Growth & returns



Making the Modern World: Materials and Dematerialization: Vaclav Smil

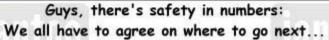
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Anhui Conch cement



Group decisions

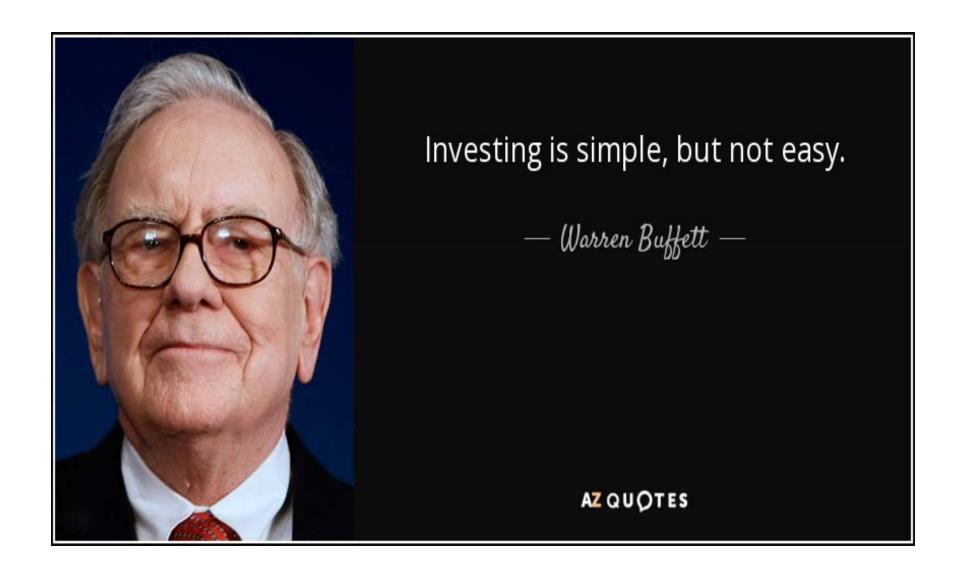






The seven deadly sins

- The folly of forecasting
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Institutional Challenge

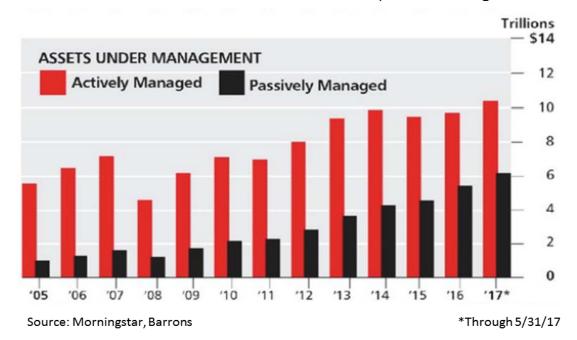


"Let's change our strategy. You start fetching the paper, and I'll handle the investments."

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The biggest challenge

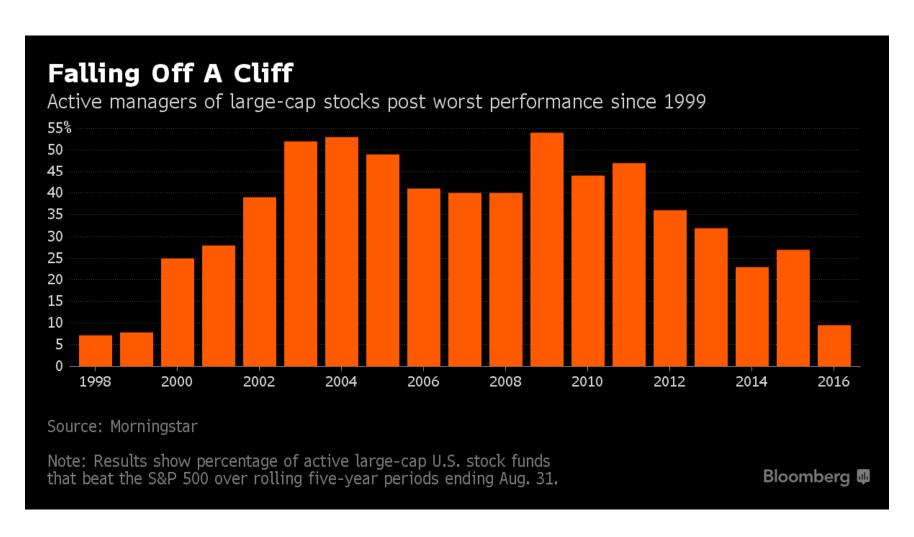
- Net flows into passive funds are on pace to reach \$800 billion in 2017
- Passive funds' haul has grown 180X more than active funds since 1993
- Vanguard owns a 5% stake in 491 S&P 500 stocks, up from 116 in 2010
- Last year, 4 out of the 5 most heavily traded securities were ETFs
- In Japan, 67% of AUM are in passive strategies
- In the U.S. 37% of fund assets are invested in passive strategies



Institutional Challenge

- Falling Alpha
- The Paradox of skill
- Investor returns vs NAV returns
- Persistency

Large Cap stocks



Outperforming is not easy...

Percentage of Actively Managed Funds That Outperform Benchmarks

	1 YEAR	5 YEARS	10 YEARS
Large-cap value	36.5	19.6	33.7
Large-cap core	28.7	16.7	16.6
Large-cap growth	49.3	11.9	12.2
Mid-cap value	53.5	22.7	42.3
Mid-cap core	42.1	27.7	11.0
Mid-cap growth	41.6	26.0	32.4
Small-cap value	66.7	38.0	38.3
Small-cap core	44.7	32.8	23.1
Small-cap growth	22.2	20.5	23.1

...across categories



The Paradox of Skill

- Success in investing has two aspects.
- The first is skill, which requires you to be technically proficient.
- The second aspect is the game in which you choose to compete. Your absolute skill is not what matters; it's your *relative* skill.

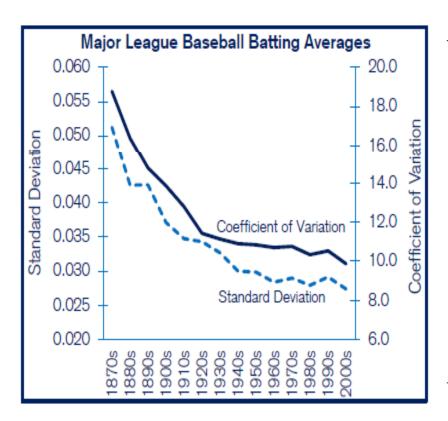
Think Federer vs Nadal vs Djokovic vs Murray

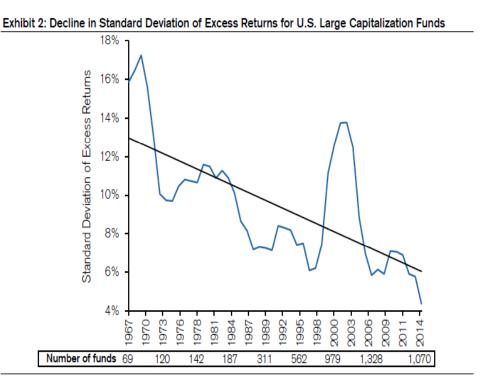
The Paradox of Skill

- The paradox of skill says that in activities where results combine luck and skill, luck is often more important in shaping outcomes even as skill improves.
- In many fields, including investing, the dispersion of skill is shrinking, which leaves more to luck.

Think Federer vs Nadal vs Djokovic vs Murray

Sports & Markets

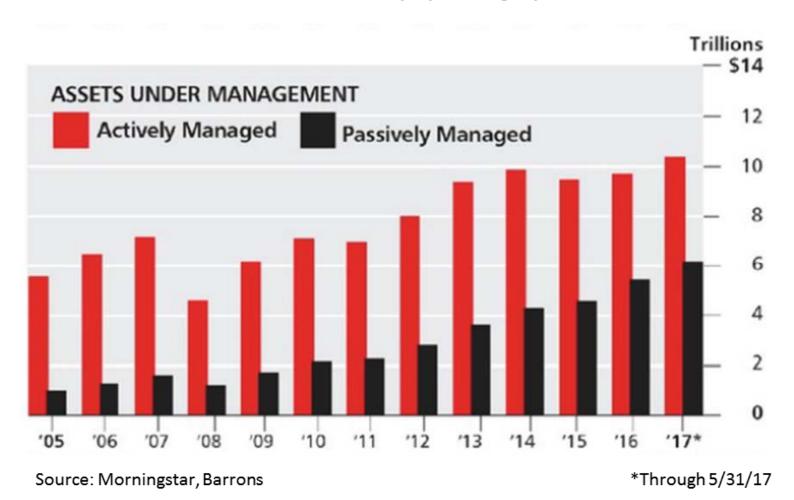




Source: Markov Processes International, Morningstar, and Credit Suisse. Note: Chart shows a five-year rolling average.

Variance(skill) + Variance(luck) = Variance(result)

Active Vs Passivewhere's the tipping point?



Outperforming in India is easy

Exhibit 4: Large cap MFs enjoyed significant alpha over BSE100 in pre-2010 era...(analysis based on data from Jan'91-Dec'09)

	Rolling One year		Rolling T year		Rolling Five year		Rolling Ten year	
	Equity MFs	BSE 100	Equity MFs	BSE 100	Equity MFs	BSE 100	Equity MFs	BSE 100
Average returns	21.8%	15.3%	17.4%	14.2%	17.4%	14.3%	17.4%	13.3%
Median returns	18.6%	8.2%	17.3%	10.0%	14.5%	9.8%	15.8%	14.7%
Standard deviation	46%	37%	23%	19%	14%	14%	7%	5%
Sharpe ratio (average)	0.30	0.20	0.41	0.33	0.65	0.45	1.32	1.12
Sharpe ratio (median)	0.23	0.01	0.40	0.11	0.45	0.13	1.10	1.40

Source: <u>www.mutualfundindia.com</u>, Ambit Capital Research. There are 3635, 3133, 2659 and 1405 data points used to calculate the return parameters for 1,3,5 and 10 year holding horizons above

Think again...

Exhibit 5: ...but this alpha diminished significantly in the post-2010 period (analysis based on data from Jan'10-Feb'17)

	Rolling One year		Rolling Tl year	nree	Rolling Five year		Rolling Ten year	
	Equity MFs	BSE 100	Equity MFs	BSE 100	Equity MFs	BSE 100	Equity MFs	BSE 100
Average returns	16.6%	13.4%	12.3%	9.7%	11.8%	10.3%	15.8%	15.8%
Median returns	10.9%	9.2%	11.5%	9.3%	12.2%	9.9%	17.0%	16.5%
Standard deviation	23%	23%	7%	7%	5%	6%	3%	4%
Sharpe ratio (average)	0.38	0.24	0.60	0.25	0.69	0.39	2.25	2.16
Sharpe ratio (median)	0.13	0.05	0.48	0.19	0.76	0.31	2.57	2.34

Source: <u>www.mutualfundindia.com</u>, Ambit Capital Research. There are 1796 data points used to calculate the return parameters for 1,3,5 and 10 year holding horizons above

Comparison vs TRI?

Where will we get Alpha from?

Figure 3					
Breakup of stock ownership					
	US\$bn	% of mkt cap			
Individual ownership	167	9%			
Life insurance	119	6%			
Mutual funds	94	5%			
Total	379	20%			

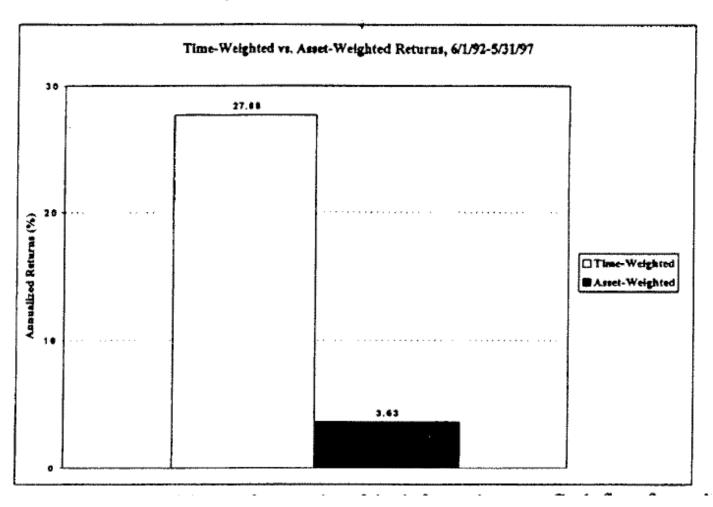


Alpha source?

- •Promoter premium on control
- •Institutional holding %
- Non benchmark investing
- Not Trading (Time arbitrage)

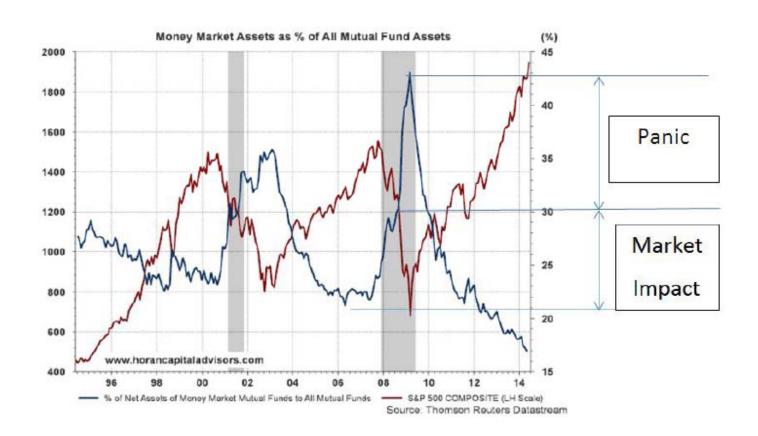
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Investor experience vs FM performance

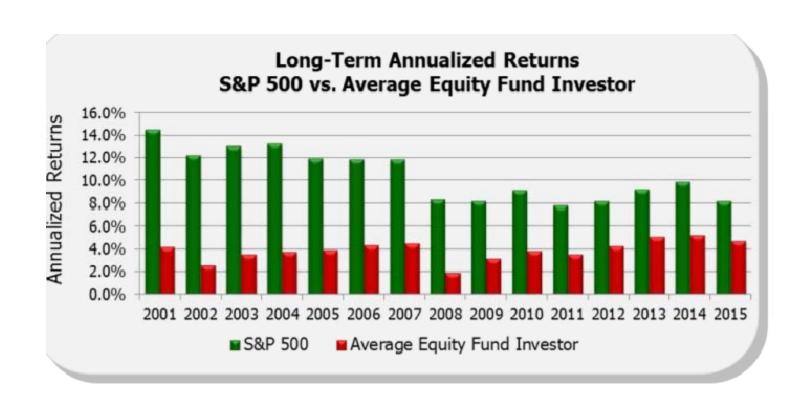


How the money flows

Exhibit 1: Money Market Assets as % of All Mutual Fund Assets



Investor experience worse than Benchmark

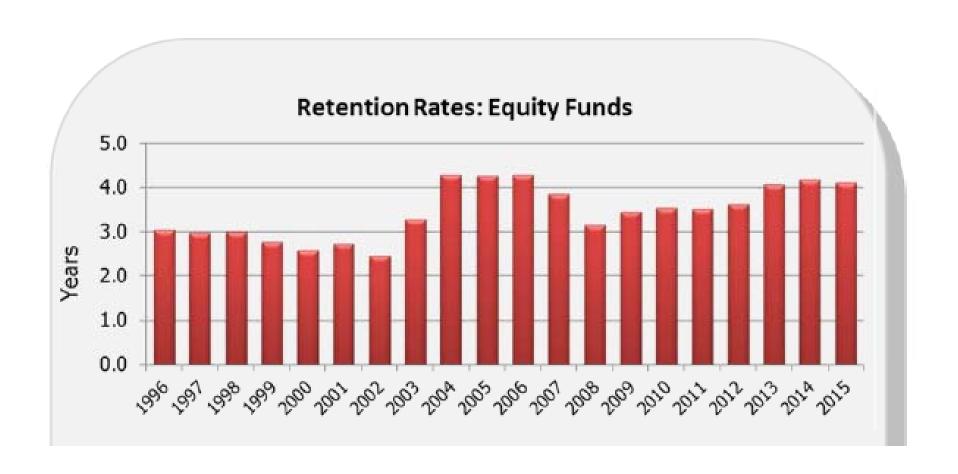


Investor experience worse than Benchmark

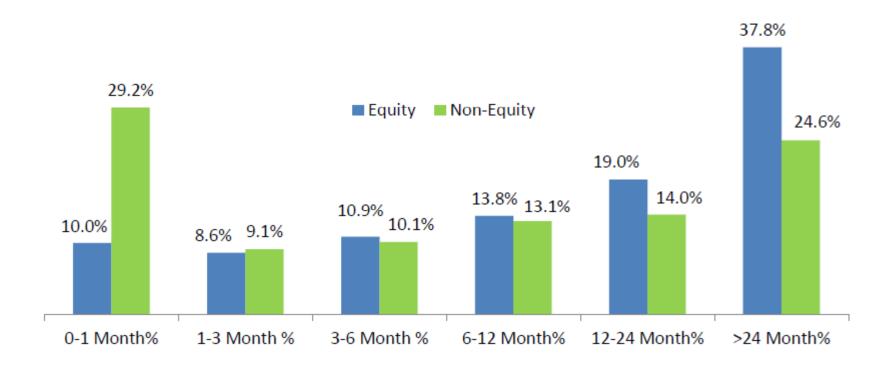
LONG-TERM ANNUALIZED INVESTOR RETURNS

Year	S&P 500	Average Equity Fund Investor	Difference
1998 ⁶	17.90%	7.25%	-10.65%
1999 ⁶	18.01%	7.23%	-10.78%
2000 ⁶	16.29%	5.32%	-10.97%
2001 ⁶	14.51%	4.17%	-10.34%
2002 ⁶	12.22%	2.57%	-9.65%
2003	12.98%	3.51%	-9.47%
2004	13.20%	3.70%	-9.50%
2005	11.90%	3.90%	-8.00%
2006	11.80%	4.30%	-7.50%
2007	11.81%	4.48%	-7.33%
2008	8.35%	1.87%	-6.48%
2009	8.20%	3.17%	-5.03%
2010	9.14%	3.83%	-5.31%
2011	7.81%	3.49%	-4.32%
2012	8.21%	4.25%	-3.96%
2013	9.22%	5.02%	-4.20%
2014	9.85%	5.19%	-4.66%
2015	8.19%	4.67%	-3.52%

How long do they stay invested?



MF Industry ageing analysis



 Only 38% of MF Industry's Equity assets stay invested for more than 2 years

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Persistency: A challenge

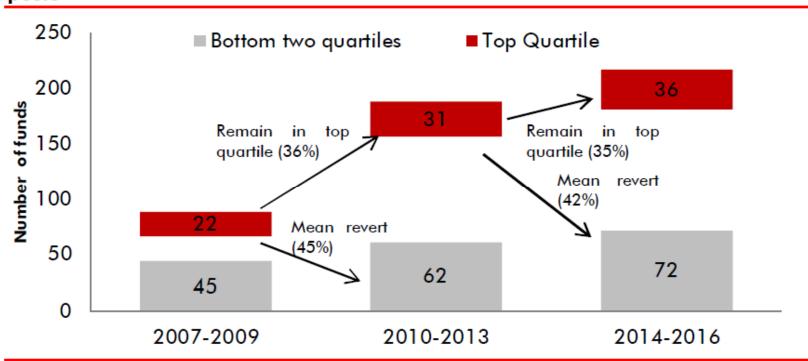
Exhibit 3: Persistence of Top Ranked U.S. Equity Funds

Large-Cap			Mid-Cap			Small-Cap			Multi-Cap		
Value	Blend	Growth	Value	Blend	Growth	Value	Blend	Growth	Value	Blend	Growth
15.6	6.7	4.3	16.1	4.4	6.3	14.3	19.1	3.6	13.4	15.1	10.3

A fund that in the top two quintiles (40%), had less than a 20% probability of maintaining its top 40th percentile ranking the following three years.

Persistency

Exhibit 6: Top performing Indian funds lack the consistency to keep outperforming peers



Source: www.mutualfundindia.com, Ambit Capital

Peter Bernstein in 1997

Rather than trying to achieve the lowest tracking error and the highest time-weighted relative returns for their *portfolios*, firms should focus on producing the highest rate of asset-weighted absolute returns for their *clients*—by bitterly fighting short-term behavior and the shuffle of the herd, by resisting the G-force of cash flow before it crushes alpha, by setting asset ceilings for their most sensitive funds, and by investing massively in educating their clients. Otherwise, active management will remain what it has so sadly become: a deep out-of-the-money call option or hope—with no exercise date.

What's your advantage?

Can you think like an owner?

Are you prepared to think/act like an owner?

TTAN IN INR 528.70 -8.05										
At 16:36 d Vol 1,048,290 0 536.85B H 537.90S L 526.50S Val 555.517M										
⟨Search⟩ Group Results By ▼ Settings Holder Ownership										
JHUNJHUNWALA RAKESH • Rectangular Snip Currency USD • Q										
Asset Type • All • Equity • F	I		Total Holdings	Value	1.4B Number of Holdings 25					
Security	Ticker	Source	Position	Pos Chg	% Out	Mkt Val↓	Mkt Val Chg F			
		•					_			
1) TITAN CO LTD	TTAN IN	Qtrly Rpt	61,760,645	+820,000	6.96	513.68MLN	+6.82MLN C			
2) LUPIN LTD	LPC IN	Qtrly Rpt	7,793,105	-500,000	1.73	138.74MLN	-8.9MLN C			
3) ESCORTS LTD	ESC IN	Qtrly Rpt	11,225,000	0	9.16	117.23MLN	O C			
4) CRISIL LTD	CRISIL IN	Qtrly Rpt	2,791,750	0	3.91	85.11MLN	O C			
5) RALLIS INDIA LTD	RALI IN	Qtrly Rpt	19,335,820	-20,000	9.94	73.32MLN	-75,836.23 C			
6) AUROBINDO PHARMA LTD	ARBP IN	Qtrly Rpt	6,350,000	0	1.08	69.80MLN	O C			
7) FEDERAL BANK LTD	FB IN	Qtrly Rpt	39,331,060	-240,000	2.03	69.78MLN	-425,823.37 C			
8) DEWAN HOUSING FINANCE CORP	DEWH IN	Qtrly Rpt	10,000,000	0	3.19	67.72MLN	O C			
9) KARUR VYSYA BANK LTD	KVB IN	Qtrly Rpt	21,059,485	0	3.46	46.85MLN	0 1			
10) GEOJIT FINANCIAL SERVICES LT	GEOFSL IN	Qtrly Rpt	22,537,500	+4.5MLN	9.54	37.86MLN	+7.56MLN C			
11) MULTI COMMODITY EXCH INDIA	MCX IN	Qtrly Rpt	2,000,000	0	3.92	33.65MLN	O C			
12) DELTA CORP LTD	DELTA IN	Qtrly Rpt	11,500,000	0	4.31	29.89MLN	0 1			
13) TATA MOTORS LTD-A-DVR	TTMT/A IN	Qtrly Rpt	5,160,000	0	1.01	21.44MLN	O C			
14) TV18 BROADCAST LTD	TV18 IN	Qtrly Rpt	30,023,300	0	1.75	17.63MLN	O C			
15) APTECH LTD	APTR IN	Qtrly Rpt	5,019,100	0	12.58	16.26MLN	O C			
16) NCC LTD	NJCC IN	Qtrly Rpt	11,600,000	0	2.09	16.25MLN	O C			
17) V.I.P. INDUSTRIES LTD	VIP IN	Qtrly Rpt	5,215,000	0	3.69	15.34MLN	O C			
18) FIRSTSOURCE SOLUTIONS LTD	FSOL IN	Qtrly Rpt	25,000,000	+1.5MLN	3.67	13.81MLN	+828,635.54 C			
19) AGRO TECH FOODS LTD	ATFL IN	Qtrly Rpt	1,342,700	0	5.51	10.51MLN	O C			
20) ANANT RAJ LTD	ARCP IN	Qtrly Rpt	9,500,000	0	3.22	9.11MLN	O C			
21) ION EXCHANGE (INDIA) LTD	ION IN	Qtrly Rpt	577,500	0	3.94	4.89MLN	O C			
20) PRAKASH INDUSTRIES LTD	PKT TN	Otrly Rnt	1 500 000	-1 5MIN	1 01	2 67MI N	-2 67MI N 0			

	% of Portfolio
Top Holding	37.7%
Top 3 Holdings	56.4%
Top 5 Holdings	65.0%

Only for discussion/learning purposes.Not for circulation

Institutional challenges

- Such concentration not allowed by regulation
- Incompatible with open ended funds that provide daily liquidity – In & Out
- Not in keeping with investor objective -Benchmark outperformance

The Oracle says...

When we own portions of outstanding businesses with outstanding managements, our favorite holding period is forever

Living up to his word



Coke



Coke vs S&P500 vs Consumer sector



How does BRK do it?

- 1998: BRK market Cap- \$106bn, KO stake \$17.128BN
- BRK market CAP \$355BN, KO stake \$18bn
- Used cash flow for more (attractive?) investments elsewhere
- OCF cumulative (1998-2015): \$248bn
- FCF cumulative (1998-2015): \$154bn
- Diversified away from KO?

Institutional challenge

- Even if we get past the concentration issue does this approach match what our investors expect?
- We don't have a operating cash flow to diversify away

Infosys

1997

- Infosys Market Cap (31/10/97): \$0.5bn
- MC India offshore fund AUM: \$200mn
- Top Position: Infosys \$20m (4% stake)

• 2002

- Infosys Market Cap (31/12/02): \$6.5bn
- Value of the 4% stake ?
- MC India offshore fund AUM ?

Final words

The Future is unknown

Are you a Fox or Hedgehog?

XL models and stories do not make you a better investor

EQ >IQ

Can you think like an owner?

In general, survival is the only road to riches.

Peter Bernstein