



**Basics of forensic**  
- or how I learn to stop worrying  
and trust the numbers

# What's forensics

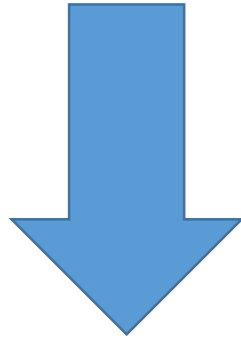
- Basic understanding of the linkages between cash flows, PL and BS
- Using some common sense of what's possible in probabilistic terms
- And having a sense of reality
  
- The key principle in forensics is triangulation
  - “Using at least 3 independent data points/opinions to validate material stuff- could be numbers or qualitative”*

# Check these statements

- I reached cuff parade from santa cruz in 25 minutes today morning
- A new world record in 100 m sprinting has been set at 7.5 sec
- The company has 40% EBITDA margins (in an industry where everyone else has 20%)
- I have Rs. 60,000 in my wallet in notes
- An IT services company has an average employee productivity of \$ 1.5 mn/year/employee
- A famous foods company in India does not have a FSSAI registration number

# The grey zone

The above statements are a significant departure from the mean and are in the “grey” zone

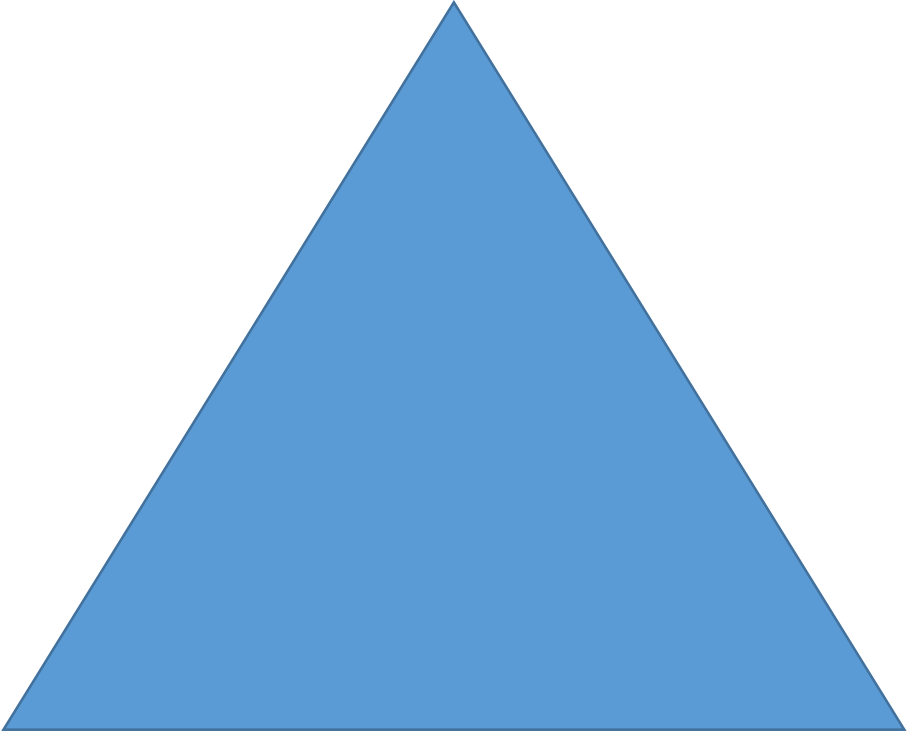


Use induction to predict probability of truth



# Triangulation is the core principle of induction

Financial analysis



Your own/expert judgement

Market feedback/scuttle butt

“ What looks too good to be true needs to be examined and the underlying reasons found out.”

- Best in class EBITDA/cash flows
- Best in class employee costs
- Best in class ROCE
- Continuous dilution to fund consistent growth'
- Roll-ups
- Large M & A/ betting the house on one large bet

# P & L misstatement checks

- Huge variation in gross/EBITDA margins (out of line with industry peers)
- Ratio of depreciation to sales and comparison with peers
- Volatility in non-operating income (exceptional items, one offs, asset sales etc.)
- Checking EBITDA and CFO – add up cumulative CFO and EBITDA for the last 5/8/10 years
- Checking the EBITDA and asset turnover with those of competitors
- Significant outliers are worth investigating through industry scuttle butt

# Balance sheet checks

- Cash and cash balances and reconciliation with cash yield in P & L
- Receivables – DSO days over 5/10 years to check if they are getting elongated or compressed or remain constant
- Receivables above 3/6 months/industry norms and if they are being provided for as bad debts in P & L
- Significant CWIP to FA backlog is an issue
- Fixed asset/inventory turnover – viz., sales/FA and Sales/Inventory
- Contingent liabilities – income tax/EPF/PF/service/sales tax issues and if they are provided for
- Leases and other fixed obligations – for eg., building/machine rentals for long term
- Huge increase in legal/other costs/advertising costs without explanation
- RPT transactions – loans/advances/advances to directors etc.



# Mungerilal wisdom

*“Cash flows is far more important than EBITDA/PAT margins. A company without cash flows is like a new car without fuel – sexy but useless”*



# Cash flow conversion issues

- Go to [www.ratestar.in](http://www.ratestar.in)
- Check the financial ratios
- Improving FA turn over plus shrinking debtors/cash conversion cycle is a big plus
- Be watchful of companies that have an increase in debtor days consistently (unless there is a change in the business model)

“



"That's torn it, now we're BOTH out of gas!"

# Mungerilal wisdom

*“If you treat cash like a jasmine seller and focus on quick and fast cash flows, you will never run into a problem. The big moat is not in P & L but is in the BS”*



# A slack capital management reflects in CE

- Higher WC - > more capital stuck as receivables - > more money needed for the same profit
- Higher capex - > more capital needed - > more equity/debt- > larger BS

# Mungerilal wisdom



“When you find a business with Arnie’s body and danny devito’s legs, you know you are in for trouble”



# “Man ka dhaan’ and “dhan ka bhi dhaan..”

Description	Mar 15	Mar 14	Mar 13	Mar 12	Mar 11	Mar 10	Mar 09	Mar 08	Mar 07	Mar 06
Book Value (Rs.)	180.22	158.04	142.50	126.03	106.29	77.88	58.91	44.06	25.82	17.71
ROA	4.86%	3.71%	4.75%	6.49%	7.73%	6.92%	7.75%	10.83%	8.30%	7.88%
ROE	14.83%	11.90%	14.69%	19.00%	24.48%	26.56%	31.36%	45.84%	42.51%	37.68%
ROCE	16.47%	15.39%	13.92%	16.22%	17.89%	17.85%	19.30%	25.27%	19.17%	17.09%
Fixed Asset Turnover	2.32	2.21	2.14	1.73	1.75	1.60	1.54	2.01	1.56	1.81
Receivable days	91.62	79.82	60.81	62.63	54.65	39.41	28.42	27.28	37.25	38.91
Inventory Days	118.51	124.45	117.59	121.00	98.58	93.50	89.55	62.72	56.74	39.96
Payable days	25.54	26.02	15.89	13.31	14.05	20.03	25.70	20.84	26.19	20.63
Cash Conversion Cycle	184.59	178.25	162.51	170.32	139.18	112.89	92.27	69.16	67.80	58.25
Total Debt/Equity	1.49	1.78	1.82	1.68	1.58	2.14	2.38	2.28	2.97	3.81
Interest Cover	2.16	2.08	2.29	2.68	3.74	3.38	3.93	4.72	4.76	7.60

# Poke the karna

## Financial Ratios Consolidated Figures in Rs. Crores / Standalone

Description	Mar 15	Mar 14	Mar 13	Mar 12	Mar 11	Mar 10	Mar 09
Book Value (Rs.)	85.54	41.55	25.05	35.77	84.89	118.85	140.21
ROA	7.45%	2.80%	-1.59%	-7.25%	-4.98%	-3.20%	0.07%
ROE	79.59%	56.55%	-35.23%	-82.70%	-34.08%	-17.07%	0.36%
ROCE	22.66%	11.44%	10.72%	4.89%	2.77%	0.59%	3.00%
Fixed Asset Turnover	0.86	0.61	0.54	0.48	0.45	0.55	0.93
Receivable days	67.03	69.06	64.51	75.02	76.91	89.12	94.90
Inventory Days	85.91	115.57	116.90	120.71	107.75	104.66	104.10
Payable days	44.31	46.93	45.64	56.47	66.72	82.06	87.48
Cash Conversion Cycle	108.63	137.69	135.76	139.26	117.95	111.71	111.53
Total Debt/Equity	5.47	12.04	17.64	11.36	4.69	4.05	3.28
Interest Cover	2.29	1.08	0.85	0.32	0.30	0.14	1.12

# House of cards on a tree..

## Financial Ratios Standalone Figures in Rs. Crores

Description	Mar 15	Mar 14	Mar 13	Mar 12	Mar 11	Mar 10	Mar 09	Mar 08	Mar 07
Book Value (Rs.)	152.38	106.96	92.69	76.05	51.06	35.32	29.26	9.23	-479.00
ROA	9.15%	9.04%	8.54%	8.29%	6.73%	3.87%	1.80%	-3.50%	-46.39%
ROE	11.68%	12.02%	11.31%	11.43%	9.99%	4.93%	1.96%	-4.99%	0.00%
ROCE	16.05%	16.47%	15.46%	15.94%	11.81%	7.29%	2.20%	-1.72%	-68.39%
Fixed Asset Turnover	0.60	0.66	0.67	0.68	0.71	0.66	0.58	1.14	0.29
Receivable days	63.31	41.53	20.26	17.92	40.56	62.93	7.64	0.54	0.00
Inventory Days	9.53	11.84	13.19	12.10	8.19	3.87	3.73	3.57	0.00
Payable days	31.23	33.03	30.87	35.73	41.64	67.19	111.94	0.00	0.00
Cash Conversion Cycle	41.62	20.34	2.57	-5.71	7.11	-0.39	-100.56	4.11	0.00



# What's going on here ?

## Financial Ratios Consolidated Figures in Rs. Crores / [Standalone](#)

Description	Sep 15	Sep 14	Sep 13	Jun 12	Jun 11	Jun 10	Jun 09	Jun 08	Jun 07	Jun 06
Book Value (Rs.)	262.53	330.62	303.53	280.02	248.79	218.13	226.87	209.23	165.41	132.94
ROA	-2.26%	3.34%	2.47%	4.22%	2.68%	3.02%	2.42%	7.63%	8.98%	8.07%
ROE	-9.53%	13.52%	8.63%	11.65%	6.32%	7.13%	6.19%	18.21%	22.67%	22.87%
ROCE	4.27%	10.65%	9.08%	10.96%	7.43%	7.67%	6.55%	15.16%	17.00%	14.20%
Fixed Asset Turnover	0.66	0.64	0.62	0.68	0.58	0.61	0.72	1.29	1.45	1.75
Receivable days	65.32	56.77	65.55	72.00	68.99	57.48	71.38	51.57	47.83	51.88
Inventory Days	80.94	68.82	74.02	79.37	82.05	77.52	78.35	48.73	46.80	44.41
Payable days	30.08	30.02	30.17	24.47	27.42	44.88	72.23	43.13	43.64	52.17
Cash Conversion Cycle	116.18	95.57	109.40	126.90	123.63	90.12	77.49	57.17	50.99	44.12
Total Debt/Equity	2.29	2.42	2.29	1.44	1.10	0.87	1.22	0.98	0.84	1.33

# Typical signs to watch out for

- BS
  - Check the sum of equity and debt – if that grows faster than revenues consistently, it could be an amber flag
  - Repeated dilution (check the share capital) is an amber flag
  - High and increasing DSO is often a very easy to spot flag
  - Faster growth in DSO/assets/FA when compared to sales is another flag to watch out of
  - A combination of the above can prove fatal – eg., tree house, mandhana

# Smelling the coffee : Scuttle butt and common sense

- Productivity measures
  - Average productivity per employee
  - Glass door reviews especially on delay/non-receipt of salaries/issues post resignation point to a low moral compass
- Statutory/legal compliances
  - Delay in filing with MCA
  - Irregularity/delay in announcing resignation of directors/auditors
  - Non payment of statutory dues :
    - Income tax
    - EPF/professional tax
    - Sales tax/service tax disputes especially if recurring

# MEMEs framework– Motive Ethics Market Standing and Materiality

- Ethics

- How does the company hire and fire employees ?
- Do they pay employees/vendors on time ?
- Are there environmental compliance issues with the company

## Statutory compliance

- Recurring issues with direct/indirect taxes
- Has the company filed with MCA/IT department on time ?
- Is the company paying statutory dues on time ?

# MEMEs

- **Management quality/Governance**

- Who are their auditors ? What is their standing ? Who else do they audit ?
- What is the auditors' fees ?
- How many of the directors are from outside the city and not from the same caste/community/state as the promoter ?
- How many people sign off on the financials ?
- What's the difference in salary between the promoter and the CFO ?
- Does the company file with MCA on time ?
- What other companies are each of the directors a part of ? What do those companies do ?

- **Materiality**

- Does independent market share data triangulate with the revenues ?
- What do key vendors/suppliers say about the company ?
- What about glassdoor/linkedin reviews ?
- Very low employee cost is a serious red flag especially dispersion of KMP
- What about debt/cash flows ?
- % of assets/revenues not audited by the statutory auditor
- RPT-issues in audit report
- Cash patriation across geographies
- Unsecured loans and advances especially to overseas

# Using social media to triangulate

- Management focus
  - Facebook
  - Twitter
- Employee motivation/engagement

# Case study 1 : Demerger games by lordship

- Red flags :
  - Family members selling continuously
  - Debt default
  - Ridiculous AR
  - Promoters owned a brokerage in their personal capacity not related to any business
- What happened:
  - Promoters kept price up till demerger went through
  - Stock collapsed after a quarter when investors realized neither of the companies had any money

# Case study 2 : Lungi dance

- Red flags:
  - “Interest income “ not commensurate with cash/cash equivalents
  - EBITDA margins 2x higher than rest of industry in a commodity business
  - Sister concern which was doing the same work had a much lower margins
- What happened :
  - Troll/abuse naysayers
  - Crowd piled on based on “halo” bias
  - As red flags snowballed and company could not justify, stock collapsed 80%



# Case study 3 : miles but no smiles

- Red flags:

- Simple check shows \$ 1.5 mn productivity per employee on linkedin; absurd by any stretch of imagination
- Promoters kept selling under the guise of “loaning back to the company”

## What happened

- Stock collapsed when a fraud was unraveled in a sister concern

# Case study 4 : Cant' take this anymore

- Red flags :
  - Low taxes
  - Increasing AR
  - 80% of revenues not audited by statutory auditor
  - Company's adherence to execution guidance raises several questions
  - Absurdly high productivity per employee
- ???????

# Mental model

- Intangibles :

- Growth in KMP and their median salaries
- Hiring ads across linkedin/websites
- EPF/statutory payments growing yoy
- MD & A talks about continuous innovation/improvisation.

- Tangibles :

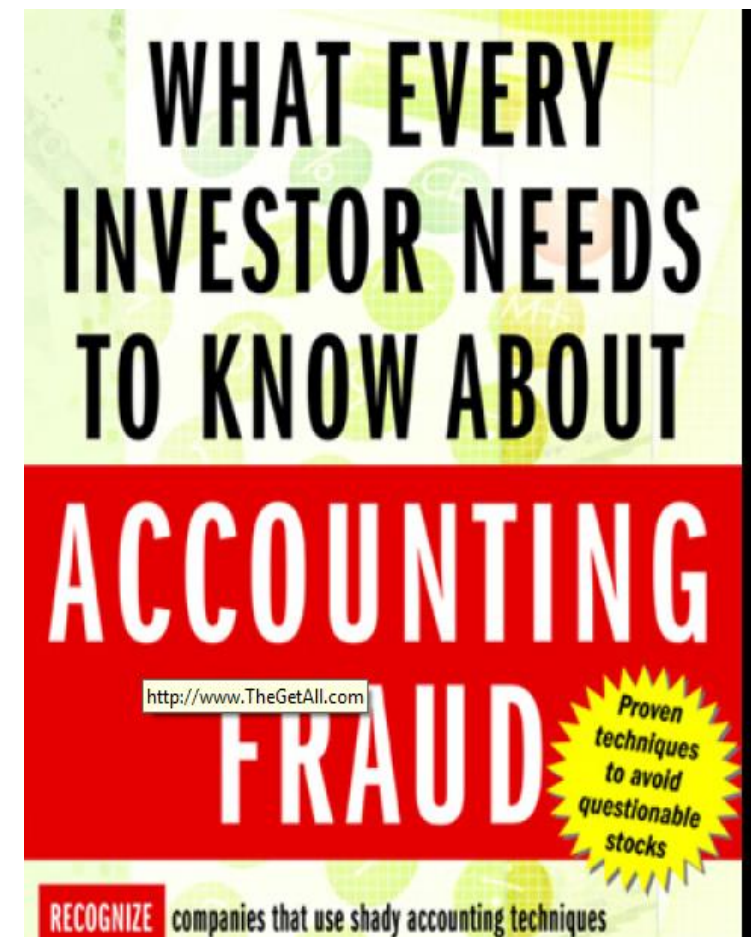
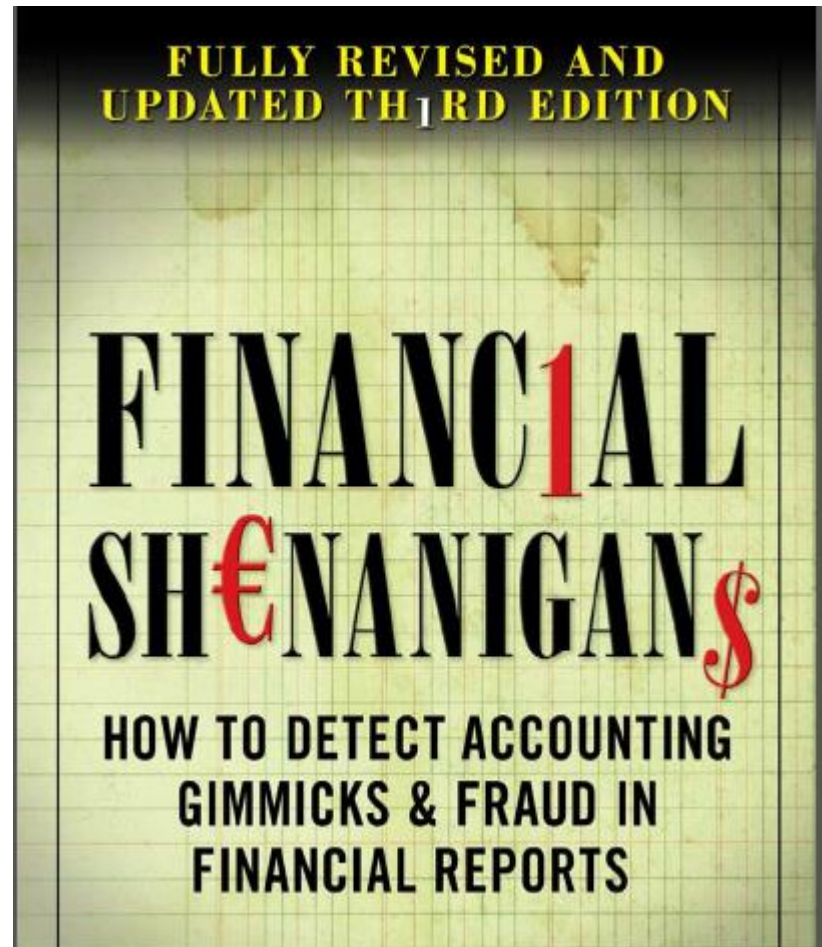
- Cash flows
- NWC
- EPS growth
- ROE/ROCE

# Recommended books

## Creative Cash Flow Reporting

Uncovering Sustainable Financial Performance

Charles W. Mulford  
and  
Eugene E. Comiskey



# Case study 5 : Ain't green but red

- Red flags :
  - No FSSAI registration
  - Factory phone only rings is never answered
  - CS says she has never seen the factory
  - For a IP heavy company, no Ph.D. except for promoter
  - 90% of revenues from overseas RPT subsidiary
- What happened :
  - Revenue was wrongly booked and reversed post math
  - Stock collapsed 50%+

An open mind and a keen interest in criminal psychology works very well



# Some books to stew on

