

24th ANNUAL WEALTH CREATION STUDY (2014-2019)

Management Integrity

Understanding Sharp Practices

HIGHLIGHTS

- In equity investing, management is 90%, industry 9% and 1% everything else. Hence, getting Management Integrity right is the critical first step.
- There's only one way of writing honest accounts, and infinite ways of manipulating them.
- Most Sharp Practices are to inflate profits and stuff the "financial trash" in the Balance Sheet (Credit P&L, Debit Balance Sheet).
- Profit & Loss statement is easier to manipulate; hence, managements must be statutorily asked to present a simplified Free Cash Flow statement.
- Auditors must be made more accountable to minority shareholders to avoid Sharp Practices by the management.
- As an investor, have a forensic mindset to get management's explanation for all the perceived Sharp Practices.
- Finally, interact with various stakeholders customers, employees, suppliers, competitors, etc till you arrive at a moment of Management Integrity.

"The best defence against fraudsters is to run away from them as fast as possible at the first hint of sharp practice. With more than 50,000 different stocks available to investors in this country, it is not only unnecessary but downright stupid to buy into a company run by men of doubtful integrity." (Thomas Phelps, in his book, 100 to 1 in the stock market)

TOP 10 WEALTH CREATORS (2014-2019)

| | THE BIGGEST | | THE FASTEST | | THE MOST CONSIST | TENT | |
|------|---------------------|-------------------------------|----------------------|-----------------------------|---------------------|--------------------------------|------------------------------|
| Rank | Company | Wealth Created (INR bn) | Company | 5-year Price CAGR (%) | Company | Appeared in WC Study (x) | 10-Year Price CAGR (%) |
| 1 | Reliance Industries | 5,636 | Indiabulls Ventures | 78 | IndusInd Bank | 10 | 49 |
| 2 | HDFC Bank | 4,085 | Bajaj Finance | 76 | Pidilite Industries | 10 | 40 |
| 3 | TCS | 3,655 | Bombay Burmah | 68 | Titan Company | 10 | 40 |
| 4 | Hindustan Unilever | 2,391 | Aarti Industries | 67 | Shree Cement | 10 | 39 |
| 5 | HDFC | 1,800 | Sundram Fasteners | 55 | Asian Paints | 10 | 34 |
| 6 | Kotak Mahindra Bank | 1,795 | Bajaj Finserv | 55 | Kotak Mahindra Bank | 10 | 34 |
| 7 | Bajaj Finance | 1,594 | Atul | 52 | Godrej Consumer | 10 | 32 |
| 8 | Infosys | 1,497 | Rajesh Exports | 49 | TCS | 10 | 31 |
| 9 | Maruti Suzuki | 1,420 | Honeywell Auto | 49 | HDFC Bank | 10 | 28 |
| 10 | Axis Bank | 1,209 | Britannia Industries | 49 | LIC Housing Finance | 10 | 28 |

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Investors are advised to refer through important disclosures made at the last page of the Research Report.

Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

Motilal Oswal 24th Annual Wealth Creation Study

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Abbreviations and Terms used in this report

| Abbreviation / Term | Description |
|-----------------------|---|
| 2009, 2014, 2019, etc | Reference to years for India are financial year ending March, unless otherwise stated |
| Avg | Average |
| CAGR | Compound Annual Growth Rate |
| L to P / P to L | Loss to Profit / Profit to Loss. In such cases, calculation of PAT CAGR is not possible |
| INR b | Indian Rupees in billion |
| Price CAGR | In the case of aggregates, Price CAGR refers to Market Cap CAGR |
| WC | Wealth Created |
| Wealth Created | Increase in Market Capitalization over the last 5 years, duly adjusted for corporate |
| Wealth Created | actions such as fresh equity issuance, mergers, demergers, share buybacks, etc. |

Note: Capitaline database has been used for this study. Source of all exhibits is MOSL analysis, unless otherwise stated

Wealth Creation Study

Objective, Concept & Methodology

Objective

The foundation of Wealth Creation is to buy businesses at a price substantially lower than their "intrinsic value" or "expected value". The lower the market value compared to the intrinsic value, the higher is the margin of safety. Every year, as in the past 23 years, we endeavor to cull out the characteristics of businesses that create value for their shareholders.

As Phil Fisher says, "It seems logical that even before thinking of buying any common stock, the first step is to see how money has been most successfully made in the past." Our Wealth Creation Studies are attempts to study the past as a guide to the future, and gain insights into the various dynamics of stock market investing.

Concept & Methodology

Wealth Creation is the process by which a company enhances the market value of the capital entrusted to it by its shareholders. It is a basic measure of success for any commercial venture. For listed companies, we define Wealth Created as the difference in market capitalization over a period of last five years, duly adjusted for corporate events such as fresh equity issuance, mergers, demergers, share buybacks, etc.

We rank the top 100 companies in descending order of absolute Wealth Created, subject to the company's stock price at least outperforming the benchmark index (BSE Sensex in our case). These top 100 Wealth Creators are also ranked according to speed (i.e. price CAGR during the period under study).

Report structure

We present the 2014-2019 Wealth Creation Study highlights in pages 2-3. The detailed findings are presented in pages 28-45. Appendix 1 (pages 46-47) ranks the top 100 Wealth Creators by size, and Appendix 2 (pages 48-49) ranks the same 100 Wealth Creators by speed.

This year's theme study titled "Management Integrity – Understanding Sharp Practices" is featured in pages 4-27.

Wealth Creation 2014-2019

Highlights

Reliance Industries smashes all records as the Biggest Wealth Creator

After a gap of 7 years, Reliance Industries has once again emerged as the biggest Wealth Creator over 2014-19. As Exhibit 4 on page 30 suggests, the INR 5.6 trillion wealth created by Reliance is the highest ever so far by a huge margin.

Exhibit 1 Top 10 Biggest Wealth Creators (2014-19)

| Rank | Company | Wealth | Created | CAGR | (%) | P/E | (x) | RoE | (%) |
|-------|----------------|--------|---------|-------|-----|------|------|------|------|
| | | INR bn | % share | Price | PAT | 2019 | 2014 | 2019 | 2014 |
| 1 | Reliance Inds | 5,636 | 11.5 | 24 | 14 | 22 | 15 | 10 | 10 |
| 2 | HDFC Bank | 4,085 | 8.3 | 25 | 21 | 28 | 21 | 15 | 20 |
| 3 | TCS | 3,655 | 7.5 | 13 | 11 | 24 | 22 | 35 | 39 |
| 4 | Hind. Unilever | 2,391 | 4.9 | 23 | 12 | 60 | 36 | 79 | 102 |
| 5 | HDFC | 1,800 | 3.7 | 17 | 15 | 21 | 17 | 15 | 21 |
| 6 | Kotak Mahindra | 1,795 | 3.7 | 28 | 24 | 35 | 24 | 12 | 13 |
| 7 | Bajaj Finance | 1,594 | 3.3 | 76 | 41 | 44 | 12 | 20 | 18 |
| 8 | Infosys | 1,497 | 3.1 | 13 | 7 | 21 | 18 | 23 | 24 |
| 9 | Maruti Suzuki | 1,420 | 2.9 | 28 | 19 | 34 | 24 | 13 | 12 |
| 10 | Axis Bank | 1,209 | 2.5 | 22 | -4 | 40 | 11 | 7 | 16 |
| Total | of Top 10 | 25,081 | 51 | 22 | 13 | 27 | 19 | 15 | 18 |
| Total | of Top 100 | 49,048 | 100 | 23 | 15 | 25 | 18 | 15 | 16 |

Indiabulls Ventures is the Fastest Wealth Creator for the second consecutive year

- For the second study in a row, **Indiabulls Ventures** has emerged as the Fastest Wealth Creator, with 2014-19 stock price multiplier of 18x (78% CAGR).
- Bajaj Finance has the unique distinction of being present in the top 10 list of both the biggest and the fastest.
- INR 1 million invested equally among the top 10 fastest Wealth Creators in 2014 would have grown to INR 11 million in 2019; return CAGR of 61% v/s barely 12% for the Sensex.

Exhibit 2 Top 10 Fastest Wealth Creators (2014-19)

| Rank | Company | Price Appn. | CAGR | (%) | Mkt Cap | (INR bn) | P/E | (x) |
|------|----------------------|-------------|-------|-----|---------|----------|------|------|
| | | (x) | Price | PAT | 2019 | 2014 | 2019 | 2014 |
| 1 | Indiabulls Ventures | 18 | 78 | 35 | 197 | 4 | 43 | 4 |
| 2 | Bajaj Finance | 17 | 76 | 41 | 1,748 | 90 | 44 | 12 |
| 3 | Bombay Burmah | 13 | 68 | 36 | 91 | 7 | 10 | 4 |
| 4 | Aarti Industries | 13 | 67 | 26 | 136 | 11 | 28 | 7 |
| 5 | Sundram Fasteners | 9 | 55 | 31 | 119 | 13 | 26 | 11 |
| 6 | Bajaj Finserv | 9 | 55 | 16 | 1,120 | 126 | 35 | 8 |
| 7 | Atul | 8 | 52 | 14 | 106 | 13 | 25 | 6 |
| 8 | Rajesh Exports | 7 | 49 | 29 | 197 | 26 | 15 | 7 |
| 9 | Honeywell Auto | 7 | 49 | 33 | 197 | 27 | 55 | 31 |
| 10 | Britannia Industries | 7 | 49 | 25 | 741 | 101 | 64 | 26 |

IndusInd Bank is the Most Consistent Wealth Creator

- IndusInd Bank has emerged the Most Consistent Wealth Creator by virtue of
 - 1. Appearing among the top 100 Wealth Creators in each of the last 10 studies; and
 - 2. Recording the highest Price CAGR of 49% over the 10-year period 2009 to 2019.

Exhibit 3 Top 10 Most Consistent Wealth Creators (2009-19)

| | | Appeared in | 10-yr Price | 10-yr PAT | P/E | (x) | RoE | : (%) |
|------|---------------------|--------------|-------------|-----------|------|------|------|-------|
| Rank | Company | WC Study (x) | CAGR (%) | CAGR (%) | 2019 | 2009 | 2019 | 2009 |
| 1 | IndusInd Bank | 10 | 49 | 35 | 33 | 7 | 13 | 12 |
| 2 | Pidilite Industries | 10 | 40 | 24 | 67 | 19 | 23 | 16 |
| 3 | Titan Company | 10 | 40 | 23 | 72 | 20 | 23 | 31 |
| 4 | Shree Cement | 10 | 39 | 7 | 57 | 4 | 12 | 49 |
| 5 | Asian Paints | 10 | 34 | 18 | 67 | 19 | 23 | 33 |
| 6 | Kotak Mahindra | 10 | 34 | 27 | 35 | 15 | 12 | 10 |
| 7 | Godrej Consumer | 10 | 32 | 29 | 33 | 20 | 29 | 30 |
| 8 | TCS | 10 | 31 | 20 | 24 | 10 | 35 | 33 |
| 9 | HDFC Bank | 10 | 28 | 26 | 28 | 18 | 15 | 15 |
| 10 | LIC Housing | 10 | 28 | 16 | 11 | 4 | 15 | 24 |

Financials is the biggest Wealth Creating sector for the third consecutive year

■ Financials has emerged as India's biggest Wealth Creating sector over 2014-19 for the third consecutive year. The surge in Wealth Creation in the sector has been led by private banks and NBFCs.

Exhibit 4 Financials is the top Wealth Creating sector

| Sector | wc | Share o | of WC % | CAGR 14- | 19 (%) | P/E (| x) | RoE (| %) |
|----------------------|----------|---------|---------|----------|--------|-------|------|-------|------|
| (No of companies) | (INR bn) | 2019 | 2014 | Price | PAT | 2019 | 2014 | 2019 | 2014 |
| Financials (23) | 15,899 | 32 | 19 | 27 | 12 | 28 | 15 | 12 | 17 |
| Consumer/Retail (21) | 8,813 | 18 | 20 | 25 | 15 | 53 | 36 | 29 | 33 |
| Oil & Gas (6) | 7,800 | 16 | 1 | 23 | 18 | 16 | 13 | 13 | 11 |
| Technology (5) | 5,715 | 12 | 24 | 12 | 10 | 22 | 20 | 29 | 30 |
| Auto (12) | 3,216 | 7 | 11 | 26 | 23 | 28 | 25 | 15 | 13 |
| Healthcare (6) | 1,607 | 3 | 9 | 29 | 22 | 31 | 23 | 12 | 12 |
| Metals / Mining (2) | 1,083 | 2 | 2 | 19 | 19 | 12 | 12 | 22 | 11 |
| Cement (3) | 1,074 | 2 | 4 | 18 | 6 | 48 | 29 | 9 | 12 |
| Capital Goods (4) | 850 | 2 | 4 | 31 | 16 | 31 | 17 | 18 | 15 |
| Utilities (1) | 487 | 1 | - | 14 | 22 | 8 | 12 | 21 | 13 |
| Telecom (1) | 88 | 0 | 2 | 15 | P to L | _ | 112 | _ | 10 |
| Others (16) | 2,417 | 5 | 2 | 28 | 20 | 30 | 22 | 15 | 14 |
| Total | 49,048 | 100 | 100 | 23 | 15 | 25 | 18 | 15 | 16 |

Payback Ratio < 1x and PEG < 1x remain solid formulas for superior returns

- Every Wealth Creation Study invariably suggests that **Payback Ratio < 1x** is the most reliable valuation metric for supernormal returns. (Payback is a proprietary ratio of Motilal Oswal, defined as current market cap divided by estimated profits over the next five years. For 2014, we calculate this ratio based on market cap as on 31-Mar-2014 divided by the actual profits reported over the next five years).
- PEG (P/E to Growth ratio) is obtained by dividing trailing 12-month P/E by future 5-year earnings CAGR. We have used perfect foresight of 5 years' earnings to calculate PEG. Thus, if a stock's P/E in 2014 was 20x, and its 2014-19 PAT CAGR is 25%, its 2014 PEG works out to 0.8x (20 ÷ 25).

For detailed findings of 2014-19 Wealth Creation Study, please see pages 28-45.

Theme 2020

Management Integrity

Understanding sharp practices

"In evaluating a common stock, the management is 90 per cent, the industry is 9 per cent, and all other factors are 1 per cent."

Philip Fisher in his book Paths to Wealth Through Common Stocks

1. Backdrop

Why study Management Integrity

Consider the following simple exercise. We checked the status of all the companies listed on the Bombay Stock Exchange 5 years ago vis-à-vis today. A relevant snapshot of the results is tabled below. In just a short span of 5 years, almost one-third of stocks lost market value of 70% or more.

Exhibit 1 Massive market value erosion in one-third of listed companies

| Total companies listed in Dec-2014 | 3,440 |
|--------------------------------------|-------|
| No longer listed in Dec-2019 | 594 |
| Stock price down 90-100% | 209 |
| Stock price down 80-90% | 169 |
| Stock price down 70-80% | 132 |
| Total of above | 1,104 |
| % of total stocks listed in Dec-2014 | 32% |

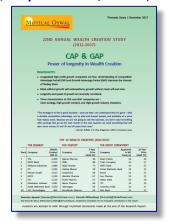
True, in many cases, the sharp erosion in stock prices is due to business downturn. But there are quite a few names in the list where the reason was primarily related to corporate governance issues.

At Motilal Oswal, our investment process is captured by the acronym **QGLP** – **Q**uality of business and of management), **G**rowth in earnings, **L**ongevity of both quality and growth, and at reasonable **P**rice. In the past 23 Wealth Creation Studies, we have covered most aspects related to QGLP.

Exhibit 2 Some of our recent Wealth Creation Studies covering Quality of Business, Growth, Longevity and Price









Economic Moat 100x CAP & GAP Valuation Insights

Exhibit 3 Motilal Oswal's QGLP investment philosophy - At a glance

QGLP – Quality, Growth, Longevity, reasonable Price

Quality of business x Quality of management

- · Stable business, preferably consumer facing
- · Huge business opportunity
- Sustainable competitive advantage
- Competent management team
- Healthy financials & ratios

QGLP QGLP Inngenity

Price

- Reasonable valuation, relative to quality and growth prospects
- High margin of safety

Growth in earnings

- Volume growth
- Price growth
- Mix change
- Operating leverage
- Financial leverage

Longevity of Quality & Growth

- Long-term relevance of business
- Extending competitive advantage period
- Sustenance of growth momentum

We dedicate the current study to **Quality of Management**. Even here, we have 3 metrics to assess Quality of Management –

- 1. Unquestionable Integrity
- 2. Demonstrable competence and
- 3. Growth mindset.

By now, we have sufficient experience to know that when investors get stuck with companies where Management Integrity comes under question, it's literally a race to zero! Hence, this study looks into a few key aspects related to management integrity e.g. –

- The motivations behind compromised integrity,
- The quantitative signals of suspect Management Integrity with relevant examples, and
- Finally, a few Indian case studies where Management Integrity was seemingly compromised.

2. What is Management Integrity

Honesty and a sense of trusteeship towards all stakeholders

Wikipedia offers the best definition of Integrity, and is worth reproducing here -

"Integrity is the practice of being honest and showing a consistent and uncompromising adherence to strong moral and ethical principles and values. In ethics, integrity is regarded as the honesty and truthfulness or accuracy of one's actions ... The word integrity evolves from the Latin adjective integer, meaning whole or complete. In this context, integrity is the inner sense of 'wholeness' deriving from qualities such as honesty and consistency of character. As such, one may judge that others 'have integrity' to the extent that they act according to the values, beliefs and principles they claim to hold."

When a company abides by this definition, it can be said to have Management Integrity.

The two key words in the above definition are "Practice" and "Wholeness" -

- **Practice** Clearly, Management Integrity should be seen in practice (i.e. behavior) and not simply be a part of the statement of its corporate value system.
- Wholeness This defines the scope of Management Integrity i.e. the company needs to be honest, fair and consistent towards <u>all</u> its stakeholders, namely, employees, customers, suppliers, shareholders, government, and the community at large.

In light of the above, for the purpose of equity investing, Management Integrity can be defined as dealing with all company stakeholders honestly and with a sense of trusteeship. This may be reflected as shown in Exhibit 4.

Exhibit 4 Management Integrity in a nutshell

| Stakeholder | Company behavior |
|--------------------|---|
| | |
| Corporate Parent / | No or minimal conflict of interest (e.g. royalty for brand, technology) |
| ounders | No or minimal related party transactions |
| Senior Management | Reasonable compensation relative to company median |
| | Calibrated stock options |
| Employees | Courtesy and respect for all employees |
| | Adequate opportunity for personal and professional development |
| | Fostering sense of ownership through calibrated stock options |
| Customers | Offering products and/or services matching customer expectations |
| | Retaining customers through appropriate loyalty programs |
| | Fair dealing on post-sale commitments e.g. warranties, repairs, etc. |
| Suppliers | Maintaining fair terms of trade |
| | Collaborating for innovations, where relevant |
| Shareholders | Presenting a true and fair view of the company's affairs through annual and interim reports |
| | Maintaining a rational policy of payouts (dividends and/or buybacks) |
| Government | Timely paying due taxes, both direct and indirect |
| | Abiding by the law of the land in all matters |
| Community & | Pursuing an active Corporate Social Responsibility program |
| Environment | Ensuring compliance with all community norms e.g. effluent- |
| | treatment, waste management, etc |

3. Why Management Integrity is critical

Else, it's an eventual race to zero

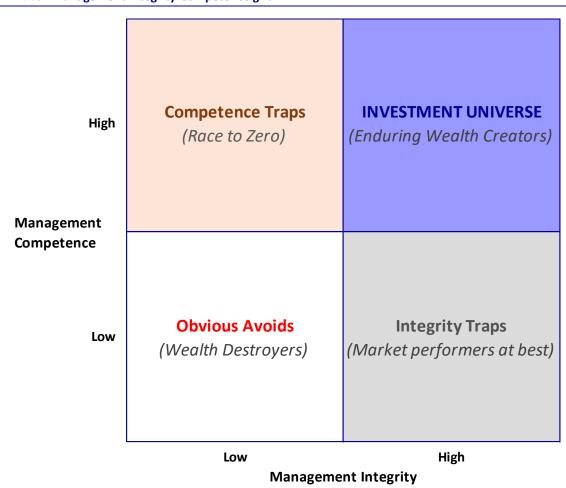
In our QGLP investment process, all the elements are multiplicative rather than additive i.e. even if one of them is zero the product is zero. Thus, Q or Quality is Quality of Business x Quality of Management.

As stated earlier, we evaluate Quality of Management by 3 metrics -

- 1. Unquestionable Integrity
- 2. Demonstrable competence and
- 3. Growth mindset.

For the sake of simplicity, we may combine Growth mindset as a sub-element of Demonstrable Competence itself. In which case, we can draw up a Management Integrity-Management Competence grid as shown in Exhibit 5. Only those companies which rank high on both Integrity and Competence need to comprise the investment universe of equity investors.

Exhibit 5 Management Integrity-Competence grid



Note that it's very important to distinguish between integrity and competence. All business failures are not due to low integrity. There may be adverse business externalities, cases of lack of competence, and even genuine business mistakes such as an ill-timed capacity expansion or acquisition.

Maintaining high level of integrity is highly beneficial for all stakeholders including the owners and senior management, as the market rewards them by way of premium valuations. And yet, managements are motivated to compromise on integrity. The next section examines why.

4. Why Management Integrity gets compromised

The lure of the lucre

Empirical evidence suggests that Management Integrity is mainly compromised to present a favorable view of the company to the equity markets. Such attempts to "manage stock prices", in turn, is motivated by several reasons such as —

- **Growth mania:** A widespread reason for Sharp Practices is to demonstrate even manufacture growth. Such is the mania for growth not only with entrepreneurs but also with investors. In fact, the latter many times rubs off on the former.
- Raising equity capital: Many businesses (especially the Financials sector) need regular
 infusion of equity for growth. In such cases, higher the stock price, the better it is for
 incumbent shareholders.
- **Compensation linked to stock performance:** Many senior managers' compensation is linked to the stock price performance. Hence, it is in their interest to maintain elevated stock prices.
- **ESOPs:** Many senior managers hold ESOPs in their respective companies. High stock prices are in their interests too.
- **Using market cap as currency:** Companies with a high-growth mindset use their market cap currency to acquire businesses via equity swap rather than cash purchases.
- **Personal wealth enhancement / Halo of market cap:** High market cap significantly enhances the worth of entrepreneurs in any social setting. Further, some entrepreneurs would also be in contention for the global pecking order of the wealthiest individuals.

Apart from stock price management, occasionally there may be other motivators like meeting debt covenants, maintaining credit ratings, meeting stock market expectations of previously given guidance, and a penchant for tax evasion, to name a few.

5. When does Management Integrity typically get compromised

No checks and balances

Management Integrity typically gets compromised when the following conditions prevail –

- **Weak Board of Directors**, which fails to challenge the senior management on issues like accounting policy, related party transactions, senior management compensation, etc.
- Management teams devoid of checks and balances, invariably led by an alpha leader who takes all major corporate decisions.
- Auditors lacking objectivity, independence and due diligence.

Where does comprised Management Integrity reflect? Enter ... Sharp Practices! When Management Integrity is compromised it uses all tricks in the trade to present a rosy picture of its affairs when in fact it isn't. It does this by resorting to what are called Sharp Practices.

6. What are Sharp Practices?

Only one right way to present accounts, infinite ways to manipulate them

Sharp Practices may be defined as "ways of behaving, especially in business, that are dishonest but not illegal." However, once the management starts resorting to Sharp Practices, it's what Satyam Computer founder B Ramalinga Raju wrote in his fraud confession letter, "like riding a tiger, not knowing how to get off without being eaten" (letter reproduced in full as a Case Study #1 Annexure, page 21). It's tough to say when a Sharp Practice degenerates into an intentional fraud (see box below).

Conservative Accounting, Neutral Accounting, Aggressive Accounting & Fraud

Steve Albrecht, professor at Brigham Young University, talks of four approaches in accounting, basis their proximity to presenting a true and fair view of a company's affairs –

- 1. Conservative Accounting erring on the side of caution
- 2. Neutral Accounting presenting as close to reality as possible
- 3. Aggressive Accounting taking liberties with accounting norms and management policies
- 4. Intentional Fraud deliberate misuse of accounting to present a false picture.

Example: Say, a company sells a hair-dryer for INR 5,000 and offers a one-year warranty on it. Past records suggest that the warranty costs incurred works out to INR 100 to INR 300 per dryer sold. The following's how the company would provide for warranty costs per dryer sold, depending on the accounting style it chooses to adopt –

Conservative Accounting
 Neutral Accounting
 INR 300 (the maximum possible)
 INR 200 (average of 100 and 300)
 Aggressive Accounting
 INR 100 (minimum possible)

Fraud : Perhaps zero (to be incurred only on actuals)

As Warren Buffett has said, "Weak companies do weak accounting." It's very important for investors to know the accounting approach of the companies that they have invested in.

We see two major kinds of Sharp Practices by companies with compromised integrity –

- (1) Accounting related and
- (2) Non-accounting related.

We cover some of them in this study. It's important to know that **there's only one right way of presenting a true and fair view of a company's affairs and infinite ways of not doing so.** Hence, our examples covered here will be more illustrative than comprehensive.

Note that all the initial Sharp Practices covered here pertain to non-Financial sectors i.e. where money changes form — cash to raw material to finished goods to sales and back to cash. Further, there's also capital expenditure. Unlike this, in the Financials sector, money retains its form all through the business. This makes it that much more difficult to identify Sharp Practices. Thus, establishing Management Integrity in the Financials Sector is that much more qualitative in nature. We cover some of the Financials sector's Sharp Practices in section 7.

6.1 Accounting Sharp Practices – the backdrop

"I can't afford the operation, but would you accept a small payment to touch up the x-ray?"
— Warren Buffett

Authors Howard Schilit, Jeremy Perler and Yoni Engelhart use the above quote in their book "Financial Shenanigans". A company's financial statements are the x-ray of its financial health. Through his quote, Buffett warns investors about companies that try to hide their true and fair financial view by merely "touching up" the financial statements. Buffett goes on to add, "In the long run, however, trouble awaits managements that paper over operating problems with accounting maneuvers. Eventually, managements of this kind achieve the same result as the seriously ill patient."

Schilit et al identify two broad categories of accounting shenanigans or Sharp Practices –

- 1. Earnings manipulation
- 2. Cash Flow shenanigans.

The authors also present an interesting backdrop to the whole issue of Sharp Practices. In 1988, there was a Hollywood comedy hit, *Twins*. The twins were born in a genetics lab as the result of a secret experiment to create the perfect child. Thus, one of the twins gets all the desirable traits while the other gets the "genetic trash".

The relationship between Earnings and Cash Flow is somewhat similar. Companies try their utmost to present the best Earnings position, only to dump all the "financial trash" into the Balance Sheet, reflecting in Cash Flow. The double-entry accounting term for this is —

Credit P&L A/c, Debit Balance Sheet

We will touch upon this through the course of our discussion on the various Sharp Practices.

Even here, there are two components of the Balance Sheet debit side (i.e. asset side) –

- 1. Working Capital and
- 2. Fixed Capital.

Items credited in P&L but charged to Working Capital side (e.g. Debtors) gets captured in Operating Cash Flow. Smart investors know this, and hence, closely monitor Operating Cash Flow in addition to profits. This has caused companies to get smarter. They now charge operating outflows to the Fixed Capital side so that even Operating Cash Flow stays robust. And to complete the cycle, resort to a lower depreciation policy so that the loading up of the Fixed Capital side too doesn't hurt P&L. The example which follows will make the above point clear.

EXAMPLE:

This hypothetical example presents P&L, Balance Sheet and Cash Flow Statement in 3 cases –

- 1. True Case i.e. how the books should actually have been in Year 1 compared to Year 0
- 2. **Case A of Sharp Practice 1 in Year 1**, inflating Sales by 200 in the P&L and Debtors by 200 in the Balance Sheet
- 3. Case B of Sharp Practice 2 in Year 1, capitalizing R&D costs of 200.

The P&L, Balance Sheet and Cash Flow Statement of all these 3 cases will appear as follows –

Exhibit 6 P&L Statement

| | Year 0 | | Year 1 | | · |
|------------------------------|--------|-----------|---------|---------|----------------------------------|
| | | True | Case A: | Case B: | |
| | | Case | SP 1* | SP 2** | Notes |
| Sales | 900 | 1,000 | 1,200 | 1,000 | Sales inflated by 200 in Case A |
| Less: | | | | | |
| Raw material costs | 450 | 500 | 500 | 500 | |
| Other costs | 180 | 200 | 200 | 200 | |
| R&D cost | 100 | 200 | 200 | 0 | R&D capitalized by 200 in Case B |
| Total costs | 730 | 900 | 900 | 700 | |
| EBITDA | 170 | 100 | 300 | 300 | |
| Depreciation | 25 | 30 | 30 | 30 | |
| EBIT | 145 | 70 | 270 | 270 | |
| Interest | 15 | 20 | 20 | 20 | |
| Profit before tax | 130 | 50 | 250 | 250 | PBT higher by 200 in both cases |
| Tax @ 25% | 33 | 13 | 63 | 63 | |
| Profit after tax | 98 | 38 | 188 | 188 | Profits same in both cases but |
| Change over True Case | | | 400% | 400% | significantly inflated |

^{*} SP 1 – Sharp Practice 1 i.e. inflating Sales and Debtors by 200

Exhibit 7 Balance Sheet

| | Year 0 | | Year 1 | | |
|----------------------------|--------|------|---------|---------|---------------------------------|
| | · | True | Case A: | Case B: | |
| | | Case | SP 1 | SP 2 | Notes |
| Equity capital | 300 | 300 | 300 | 300 | |
| Opening Reserves | 403 | 500 | 500 | 500 | |
| Add: Current year's profit | 98 | 38 | 188 | 188 | |
| Closing Reserves | 500 | 538 | 688 | 688 | |
| Net Worth | 800 | 838 | 988 | 988 | |
| Debt | 60 | 123 | 173 | 173 | |
| Total Capital Employed | 860 | 960 | 1,160 | 1,160 | |
| Opening Fixed Assets | 700 | 800 | 800 | 800 | |
| Add: This year's Capex | 100 | 100 | 100 | 100 | |
| R&D capitalized | 0 | 0 | 0 | 200 | |
| Closing Fixed Assets | 800 | 900 | 900 | 1,100 | Capex higher by 200 in Case B |
| Accumulated depreciation | 200 | 230 | 230 | 230 | |
| Net Fixed Assets | 600 | 670 | 670 | 870 | |
| Debtors | 300 | 350 | 550 | 350 | Debtors higher by 200 in Case A |
| Inventory | 200 | 150 | 150 | 150 | ζ , |
| Cash | 30 | 40 | 40 | 40 | |
| Total Current Assets | 530 | 540 | 740 | 540 | |
| Creditors | 270 | 250 | 250 | 250 | |
| Net Current Assets | 260 | 290 | 490 | 290 | |
| Total Assets | 860 | 960 | 1,160 | 1,160 | |

^{**} SP 2 – Sharp Practice 2 i.e. capitalizing R&D costs of 200

Exhibit 8 Cash Flow Statement

| | | Year 1 | | |
|---------------------------|------|---------|---------|--|
| | True | Case A: | Case B: | |
| | Case | SP 1 | SP 2 | Notes |
| Opening Cash | 30 | 30 | 30 | |
| Profit after Tax | 38 | 188 | 188 | |
| Depreciation | 30 | 30 | 30 | |
| Cash Profit | 68 | 218 | 218 | |
| Change in Working Capital | -20 | -220 | -20 | |
| Change in debtors | -50 | -250 | -50 | |
| Change in inventory | 50 | 50 | 50 | |
| Change in creditors | -20 | -20 | -20 | |
| Operating Cash Flow | 48 | 3 | 198 | Operating Cash Flow weak in |
| Capex | 100 | 100 | 300 | Case A unlike in Case B but higher capex in Case B |
| Free Cash Flow | -53 | -103 | -103 | leading to Free Cash Flow |
| Change in debt | 63 | 113 | 113 | weak in both cases |
| Closing Cash | 40 | 40 | 40 | |

6.2 Common accounting Sharp Practices

We list below some of the more common Sharp Practices.

6.2.1 Recording bogus revenue

This clearly is an outright fraud on all stakeholders of a company. It is invariably masterminded by the top management of the company. The accounting entry here is –

Credit Sales A/c, Debit Debtors A/c

The impact of this is that Sales gets boosted but Operating Cash Flow (OCF) gets deflated. Given such practices, OCF-to-PAT is becoming a key metric monitored by smart investors i.e. how much of PAT is getting converted to Operating Cash Flow.

The classic Indian example here is that of Satyam Computer Systems (see Case Study #1 on page 20, followed by the confession letter of founder Ramalinga Raju himself.) A more recent example is that of Manpasand Beverages (Case Study #2, page 23).

6.2.2 Shifting current expenses to a future date

We discuss below a couple of ways how this gets one.

• **Deflating Depreciation by changing accounting policy:** Depreciation is a non-cash charge in the Profit & Loss Statement. The spirit of this accounting head is to provide for the renewal and/or replacement of the Fixed Assets currently being utilized by the company. In most cases, depreciation is equally amortized over the life of the asset, which is invariably an estimate by the management. The following table illustrates how depreciation expenses can be deflated and profits inflated by a mere change in policy.

Exhibit 9 How change in depreciation policy can boost profits

| INR billion | Current Policy | New Policy |
|--|----------------|------------|
| Estimated life of Plant & Machinery | 10 years | 15 years |
| Salvage value at the end of asset life | 5% | 10% |
| Current Plant & Machinery, say | 20 | 20 |
| Salvage value | 1 | 2 |
| Net Value to be amortized over life | 19 | 18 |
| Annual Charge over respective life | 1.9 | 1.2 |
| | (19 ÷ 10) | (18 ÷ 15) |
| Savings in Depreciation charge | | 37% |

The double-entry here is - Credit Depreciation A/c, Debit Fixed Assets A/c

• Inflating profit by capitalizing expenses: Accounting standards offer company managements the leeway to capitalize some operating expenses (labor cost, interest on loans, etc) in specific situations such as projects under construction. A Sharp Practice here would be to over-capitalize such expenses, thus inflating current profit and bloating fixed assets on the Balance Sheet. The double-entry here is —

Credit Expense A/c, Debit Fixed Assets A/c

Likewise, some companies may capitalize R&D expenditure or heavy brand-spend on grounds that the benefit of such expenditure will accrue for multiple years in future.

6.2.3 Recording revenue too soon

This Sharp Practice is possible in cases like construction companies, which may bill revenue before the due share of contract is completed, or at times, before getting the customers' approval.

6.2.4 Boosting income using one-time activities

During bad times, companies may resort to practices such as one-time sale of land or other assets. At times, companies may even resort to sale and lease-back of their core operating assets, optically boosting profits and return on capital.

6.2.5 Shifting current incomes to the future or future expenses to the current period

Most companies are focused on inflating current profits, and hence, this Sharp Practice is rare. Still, some companies may prefer to smoothen their annual earnings growth by shifting some incomes to a future period, or by creating floating provisions for expenses which may be incurred in the next accounting period.

6.2.6 Sharp Practices during acquisitions

Many times, companies try and clean up their accumulated Sharp Practices only via acquisition of another company. For instance, Satyam Computer attempted to acquire Maytas Infrastructure from the promoter group to settle the inflated cash balance. Sharp Practices such as unrelated acquisition or overvaluation of assets acquired are commonplace.

Case for a simplified Cash Flow Statement

It is easy to manipulate P&L but much more difficult to escape its aftermath in the Cash Flow Statement. However, the current three-tiered Cash Flow Statement – Operations, Investing and Financing – does not present investors with a clear picture of the P&L-Balance sheet sharp practices. Hence, we propose that companies be statutorily asked to present a simplified Cash Flow Statement along the lines shown below.

Revised Cash Flow Statement Proforma

| Description | Formula | INF |
|---|----------------------|-------|
| Opening Cash | a | 900 |
| Profit After Tax | b | 500 |
| Add: Depreciation & Amortization | С | 100 |
| Cash Profit | d = b + c | 600 |
| Changes in Working Capital | | |
| (Increase)/Decrease in Debtors | e | (60) |
| (Increase)/Decrease in Inventory | f | 40 |
| (Increase)/Decrease in Other Curr. Assets | g | 20 |
| Increase/(Decrease) in Creditors | h | 30 |
| Increase/(Decrease) in Other Curr. Liabs. | i | (10) |
| Inflow / (Outflow) due to Working Capital | j = e + f + g+ h + i | 20 |
| CASH FLOW FROM OPERATIONS | k = d + j | 620 |
| Changes in Fixed Capital | | |
| (Increase)/Decrease in Fixed Assets | I | (200 |
| (Increase)/Decrease in Intangible Assets | m | (5 |
| (Acquisition) of businesses | n | (50 |
| Disposal of businesses | 0 | 20 |
| Inflow / (Outflow) due to Fixed Capital | p = l + m + n + o | (235) |
| FREE CASH FLOW FROM OPERATIONS | q = k + p | 385 |
| Changes in Financial Investments | | |
| (Purchase) of investments | r | (50 |
| Sale of investments | S | 30 |
| Inflow / (Outflow) due to Financial Investments | t = q + s | (20) |
| FREE CASH FLOW FOR THE YEAR | u | 365 |
| Changes in Debt | | |
| (Repayment) of debt | V | (120) |
| Fresh borrowings | w | 40 |
| Net Change in Debt | x = v + w | (80 |
| FREE CASH FLOW TO EQUITY | y = u + x | 285 |
| Less: Dividend payout | Z | (100 |
| Share buyback | aa | (0 |
| Closing Cash | ab = a + y + z + aa | 1,085 |

6.2.7 Off-Balance Sheet Sharp Practices

Companies can even take some items of the Balance Sheet. For instance, companies may discount some debtors (i.e. trade bills) with the banks. If there is recourse to them (i.e. they are still finally liable), then such discounting gets mentioned under Contingent Liabilities, but off the Balance Sheet. In other cases, companies may stand guarantee for loans taken by associates or other related parties, which again will appear as Contingent Liabilities, off the Balance Sheet.

Having covered the major accounting related Sharp Practices, we can now turn to non-accounting Sharp Practices. Unlike the former, these ones are relevant for companies in the Financials sector as well.

6.3 Non-accounting Sharp Practices

The most common non-accounting Sharp Practices are - (1) Related party transactions, and (2) Earnings guidance.

6.3.1 Related party transactions

Companies may have umpteen transactions with related parties, defined as subsidiaries, associate companies and key management personnel. In cases of managements with low integrity, this becomes a key modus operandi for misappropriation of funds. Today, annual reports have to give complete details of all Related Party Transactions. It is a must for investors to go through the same for vital clues related to Management Integrity.

6.3.2 Earnings guidance

Today, most companies hold conference calls with equity analysts and investors post their quarterly results. During these conference calls, it is common for managements to guide investors regarding their future performance in terms of revenue and earnings. Managements with low integrity would tend to misguide investors or conceal known future disappointments.

7. Sharp Practices in Financial Sector

"If you don't know jewelry, know the jeweler!"

The Financials sector today accounts for over 40% of India's leading indices. Despite being one of the largest sectors around the world, the paucity of literature written on the Sharp Practices in the sector surprised us. For other sectors, we use cash flows as the filter to separate the wheat from the chaff, but this filter cannot be used for Financials as we have explained earlier.

Lending organizations are leveraged entities, running anything between 5x and 10x leverage. Hence, the smallest Sharp Practice can lead to significant erosion of net worth and consequently shareholder value. Hence, Investors should be extra careful and vigilant when investing in Banks and NBFCs.

We have put together a list of Sharp Practices typically used in the Financials sector. Yet, Buffett's words rings most true in this case, "If you don't know jewelry, know the jeweler!"

7.1 Upfronting income and amortizing expenses

The most common Sharp Practice in this sector is aggressive recognition of Income. This can be in the form of:

- 1. High Fee Income on a loan in exchange for lower Annuity Interest Income
- 2. Upfront recognition of Income received on sell down of loans
- 3. Aggressive Third Party Product selling target
- 4. High Debt Syndication revenues.

Most of the above manifests in the form of above industry average Fee Income or sudden jump/volatility in margin trajectory.

7.2 Recognition of bad assets

Pre-IBC (Insolvency and Bankruptcy Code) and AQR (Asset Quality Review), this was the trickiest aspect of investing into the Indian Financials Sector. It was easy to evergreen, pass the loan around and in some cases even hide the same altogether. We have seen NPAs (non-performing assets) of banks rise exponentially post RBI audits. With IBC, system of SMA (Special Mention Accounts) in reporting, and immediate disclosure of RBI audit results, banks now have little space to maneuver in this area.

The other half of the Financial System in India are the HFCs and NBFCs where the RBI AQR has not been done. We would caution investors here as this sector has the potential to throw up a few negative surprises as we have seen with Dewan Housing Finance recently.

7.3 The issue of "large"

Granularity is the key to mitigate risks in lending. The biggest errors are made in "large" sizes. A few illustrations below.

7.3.1 Large ticket size

Large ticket size loans increase the lumpiness of stress for lenders and makes it difficult to navigate during tough times. The classic case being the power crisis we saw in the early part of the decade. Low demand and lack of consistent fuel availability led to a significant crisis for the lenders. The very same sector had propelled the loan books of banks over 2005-10.

7.3.2 Large collateral

This is the biggest folly in collateralized lending. In collateralized lending, liquidity is as important as the size and value of collateral. Larger the size of collateral, lesser the liquidity and hence lower the worth. The classic case being Loan Against Shares – a 20% stake of promoter with LTV (loan-to-value) of 50% maybe a tougher collateral to liquidate than a 0.1% stake in the same company of a retail investor with even higher LTVs.

7.3.3 Large loan book

Did you know that there was not a single NBFC rated below AA whose loan book was higher than INR 300 billion until Sep 2018? Size begets rating and rating begets more funding which in turn leads to bigger size. As this "virtuous" cycle plays, the motive of getting "larger" is clear.

7.4 Trade checks & sample study

There are shenanigans in every sector and most of them are perennial borrowers. These person(s) are mostly blacklisted in the trade that they are in but have the favor of some lender. A quick check with the industry participants can give a good sense of the quality of the borrower and in turn the processes of the lender.

In case of retail lending firms, one effective way is to do a sample study. If an HFC claims to have a retail loan book of INR 1 trillion, it implies a market share of ~5%. A sample of 500-1,000 respondents should give you a quick check on the veracity of the claim of granularity.

7.5 Organization structure

The first thing to look for in the organization structures of lending institutes is segregation of Credit Appraisal and Business. The credit team is the most effective internal auditor that a bank has, and if its incentives are linked to the business of the firm, it is a recipe for disaster. They are the brakes of a car and imagine a situation where the brakes don't work on speeds above danger limits. During periods of slow growth, we don't need brakes!

The second aspect to look for is the subtle difference between retail and wholesale lending structures. With the advent of credit score and big data analytics, the function of collections can get undermined. We believe that in retail lending, getting collections right is more important than credit and lending. On the other hand, in wholesale credit, appraisal takes center-stage. This subtle difference should be investigated before investing in any lending organization.

8. Other checks on Management Integrity

Auditors' report, top management changes, pledged shares, 360° feedback

Besides keeping an eye on the management's Sharp Practices, investors would do well to keep a tab on auditors' report, top management changes, promoters' pledged shares, and also take a 360-degree feedback on Management Integrity.

8.1 Auditors' report

As things stand, currently in India, auditors are expected to give a report on the state of a company's financials not only at the end of the year, but also a limited review report at the end of every quarter. Investors should closely monitor the remarks made therein for any evidence of Sharp Practices.

8.2 Top management changes

Frequent changes in the top management – especially CEO, CFO and Company Secretary – are signals of some form of trouble brewing in the company. Likewise, nowadays, resignation of statutory auditors is almost a certain sign of financial irregularities.

8.3 Promoters' pledged shares

Shares pledged by promoters has emerged as a serious concern to the holdings of minority shareholders. In many cases, promoters pledge their shares with banks or NBFCs to raise funds to pursue their personal business ambitions. If that project fails, the lending institution begins to

offload the shares pledged with it. This creates a domino effect, taking down share value for all shareholders.

8.4 360-degree feedback

As is said, "You can fool some people all the time, and all people for some time. But you cannot fool all people all the time." Given this, a 360-degree feedback on Management Integrity must become an unavoidable part of an investor's to-do list prior to investing in a company. Such a 360-degree list of constituents would include (wherever and as many as possible) —

- Non-executive members of the Board of Directors
- Employees current and/or ex
- Customers
- Distributors / Dealers
- Suppliers and
- Competitors.

The purpose of the whole exercise detailed above – right from looking out for various Sharp Practices to the 360-degree feedback – is to arrive at what author Michael Shern in his book, "The Investment Checklist" calls, the **moment of integrity** i.e. that final piece of clinching evidence as to whether the management is honest in its dealings with stakeholders or not.

9. Conclusions

Invest only if you arrive at that Moment of Integrity

- In equity investing, management is 90%, industry 9% and 1% everything else. Hence, getting Management Integrity right is the critical first step.
- There's only one way of writing honest accounts, and infinite ways of manipulating them. The first hint of compromised Management Integrity can be found in the published financial statements of companies.
- Most Sharp Practices are to inflate profits and stuff the "financial trash" in the Balance Sheet (Credit P&L, Debit Balance Sheet). Hence, it is very important to juxtapose a company's Cash Flow Statement along with its Profit & Loss Statement.
- Profit & Loss statement is easier to manipulate; hence, managements must be statutorily
 asked to present a simplified Free Cash Flow statement. Our suggested proforma on page 15
 is a good starting template which can be improved upon further.
- Auditors must be made more accountable to minority shareholders to avoid Sharp Practices by the management.
- As an investor, have a forensic mindset to get management's explanation for all the perceived Sharp Practices.
- Finally, interact with various stakeholders customers, employees, suppliers, competitors, etc till you arrive at that moment of Management Integrity.

ANNEXURE: Sharp Practices – a few India case studies in brief

There are several cases of Sharp Practices in the Indian corporate sector. This has increased even more significantly in recent times, with many promoters either going fugitive or getting arrested on grounds of fraud. We present below just a few such cases for some insights into the modus operandi, and based on the same, what kind of stocks investors may avoid.

Sharp Practices Case Study #1

Satyam Computer Services

Satyam Computer's case study arguably takes the dubious distinction of the mother of all corporate frauds in India. Post settling of the fraud, the company was acquired by Tech Mahindra.

Company & Promoter background

- Satyam was incorporated by Ramalinga Raju in 1987, and made its IPO in 1991, which was subscribed over 17 times.
- It was a fast-growing IT software company with peers such as Infosys, TCS and Wipro.

The Sharp Practice modus operandi

- The key behind Satyam's fraud appears to be its promoter's keen interest in real estate.
- Ramalinga Raju even inflated the payroll and embezzled money out of the company by way
 of salaries to fictitious employees.
- All the while, he also inflated the company's cash balances which were visible in the system.
- By 2008, the "cash balance" had ballooned to over a billion US dollars.
- That's when Raju sought to merge the group's real estate business into the company, so that there may be real assets created against the fictitious cash.
- However, that deal did not go through, forcing Raju to do the confession (for full letter, see page 21).

The red flags & the bust

- The fraud was so well managed (most likely in collusion with internal and statutory auditors) that there was hardly any trail of evidence.
- In hindsight, the only weak case was the company's Other income, which was very low compared to its cash balance.

Exhibit 10 Satyam Computer – Key financials

| - | - | | | | |
|------|----------------------|------------------------|-------------------------------------|--|--|
| FY05 | FY06 | FY07 | FY08 | FY09 | Remarks |
| 35 | 48 | 65 | 85 | 88 | |
| 7 | 11 | 14 | 17 | -82 | Write-offs deflate PAT |
| | | | | | |
| 33 | 43 | 57 | 72 | -9 | Net worth also eroded |
| | | | | | |
| 8 | 12 | 17 | 24 | 16 | |
| | 35 7 33 | 35 48 7 11 33 43 | 35 48 65 7 11 14 33 43 57 | 35 48 65 85 7 11 14 17 33 43 57 72 | 35 48 65 85 88 7 11 14 17 -82 33 43 57 72 -9 |

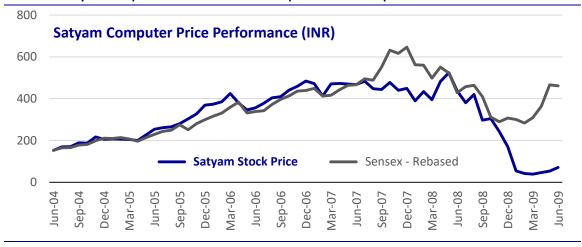


Exhibit 11 Satyam Computer - Stock Price tumbled post the fraud expose

Sharp Practices Case Study #1 Annexure

Satyam Computer founder Ramalinga Raju's confession letter

7 January 2009

To the Board of Directors
Satyam Computer Services Ltd

Dear Board Members,

It is with deep regret, at tremendous burden that I am carrying on my conscience that I would like to bring the following facts to your notice:

The Balance Sheet carries as of September 30, 2008 -

- Inflated (non-existent) cash and bank balances of Rs 5,040 crore (as against Rs 5,361 crore reflected in the books)
- An accrued interest of Rs 376 crore which is non-existent
- An understated liability of Rs 1,230 crore on account of funds arranged by me
- An overstated debtors position of Rs 490 crore (as against Rs 2,651 crore reflected in the books).

For the September quarter (02) we reported a revenue of Rs 2,700 crore and an operating margin of Rs 649 crore (24% of revenues) as against the actual revenues of Rs 2,112 crore and an actual operating margin of Rs 61 crore (3% of revenues). This has resulted in artificial cash and bank balances going up by Rs 588 crore in Q2 alone.

The gap in the Balance Sheet has arisen purely on account of inflated profits over a period of last several years (limited only to Satyam standalone, books of subsidiaries reflecting true performance). What started as a marginal gap between actual operating profit and the one reflected in the books of accounts continued to grow over the years. It has attained unmanageable proportions as the size of company operations grew significantly (annualized revenue run rate of Rs 11,276 crore in the September quarter, 2008 and official reserves of Rs 8,392 crore). The differential in the real profits and the one reflected in the books was further

accentuated by the fact that the company had to carry additional resources and assets to justify higher level of operations — thereby significantly increasing the costs.

Every attempt made to eliminate the gap failed. As the promoters held a small percentage of equity, the concern was that poor performance would result in a takeover; thereby exposing the gap. It was like riding a tiger, not knowing how to get off without being eaten.

The aborted Maytas acquisition deal was the last attempt to fill the fictitious assets with real ones. Maytas' investors were convinced that this is a good divestment opportunity and a strategic fit. Once Satyam's problem was solved, it was hoped that Maytas' payments can be delayed. But that was not to be. What followed in the last several days is common knowledge.

I would like the Board to know:

- 1. That neither myself, nor the Managing Director (including our spouses) sold any shares in the last eight years excepting for a small proportion declared and sold for philanthropic purposes.
- 2. That in the last two years a net amount of Rs 1,230 crore was arranged to Satyam (not reflected in the books of Satyam) to keep the operations going by resorting to pledging all the promoter shares and raising funds from known sources by giving all kinds of assurances (statement enclosed, only to the members of the board). Significant dividend payments, acquisitions, capital expenditure to provide for growth did not help matters. Every attempt was made to keep the wheel moving and to ensure prompt payment of salaries to the associates. The last straw was the selling of most of the pledged shares by the lenders on account of margin triggers.
- 3. That neither me, nor the Managing Director, took even one rupee/dollar from the company and have not benefitted in financial terms on account of the inflated results.
- 4. None of the board members, past or present, had any knowledge of the situation in which the company is placed. Even business leaders and senior executives in the company, such as, Ram Mynampati, Subu D, T.R. Anand, Keshab Panda, Virender Agarwal, A.S. Murthy, Han T, S.V. Krishnan, Vijay Prasad, Manish Mehta, Murali V. Sriram Papani, Kavale, Joe Lagioia, Ravindra Penumetsa, Jayaraman and Prabhakar Gupta are unaware of the real situation as against the books of accounts. None of my or Managing Director's immediate or extended family members has any idea about these issues.

Having put these facts before you, I leave it to the wisdom of the board to take the matters forward. However, I am also taking the liberty to recommend the following steps:

1. A Task Force has been formed in the last few days to address the situation arising out of the failed Maytas acquisition attempt. This consists of some of the most accomplished leaders of Satyam: Subu D, T.R. Anand, Keshab Panda and Virender Agarwal, representing business functions, and A.S. Murthy, Han T and Murali V representing support functions. I suggest that Ram Mynampati be made the Chairman of this Task Force to immediately address some of the operational matters on hand. Ram can also act as an interim CEO reporting to the board.

- 2. Merrill Lynch can be entrusted with the task of quickly exploring some merger opportunities.
- 3. You may have a statement of accounts prepared by the auditors in light of the facts that I have placed before you.

I have promoted and have been associated with Satyam for well over 20 years now. I have seen it grow from few people to 53,000 people, with 185 Fortune 500 companies as customers and operations in 66 countries. Satyam has established an excellent leadership and competency base at all levels. I sincerely apologize to all Satyamites and stakeholders, who have made Satyam a special organization, for the current situation. I am confident they will stand by the company in this hour of crisis.

In light of the above, I fervently appeal to the Board to hold together to take some important steps. Mr T R Prasad is well placed to mobilize support from the government at this crucial time. With the hope that members of the Task Force aid the financial advisor, Merrill Lynch (now Bank of America) will stand by the company at this crucial hour, I am marking copies of this statement to them as well.

Under the circumstances, I am tendering my resignation as the chairman of Satyam and shall continue in this position only till such time the current Board is expanded. My continuance is just to ensure enhancement of the Board over the next several days or as early as possible.

I am now prepared to subject myself to the laws of the land and face consequences thereof.

B. Ramalinga Raju

Copies marked to:

- 1. Chairman SEBI
- 2. Stock Exchanges

Sharp Practices Case Study #2

Manpasand Beverages

Company & Promoter background

- Manpasand Beverages is a fruit drink manufacturing company engaged in processing, manufacturing and marketing of juice from fruit pulp. It offers its products under the brand names Mango Sip, Apple Sip, Guava Sip and Litchi Sip.
- The company was founded in 1997 and is based in Vadodara, Gujarat
- Mr Dhirendra Hansraj Singh is the Chairman and Managing Director and holds a Bachelor's Degree in Arts from Gorakhpur Vishwavidyalaya, Varanasi.

The Sharp Practice modus operandi

• The company is alleged to have overstated its revenues and profits. [1]

- The company set up 30 fake units across the country. Purchase and sale transactions were then shown with values inflating with each transaction in order to claim a cumulatively large sum of input credit. [2]
- These inter-unit transactions were worth over INR 3 billion and their input tax credit would come up to INR 0.4 billion. [2]

The red flags & the bust

- Incongruence in market share data, too-good-to-be-true growth and industry-leading margins were the red flags prior to the auditors resigning in May 2018.
- In FY19, the company wrote down its sales and receivables by issuing a credit note of INR 1.8 billion, and providing for a credit loss of INR 1.2 billion on its receivables.
- To divert funds, capital work in progress and capital advances seem to be inflated as well. An amount of INR 2.7 billion has been provisioned for losses in FY19.
- The promoters were jailed for GST fraud in May 2019. The company has deposited INR 178 million with the GST authorities under protest to secure their release.

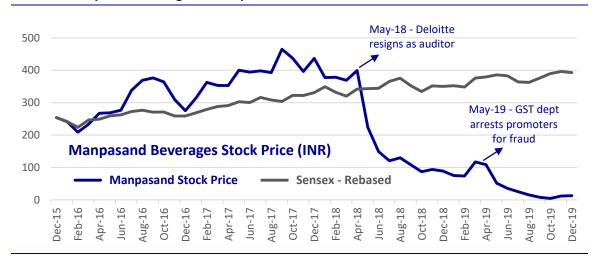
Sources:

- [1] Business Today, 9-Oct-19 "Is Manpasand Beverages among the biggest corporate frauds in India?"
- [2] Money Control, 31-May-19 "How a Rs 40-crore GST fraud unfolded at Manpasand Beverages"

Exhibit 12 Manpasand Beverages – Key Financials

| INR million | FY15 | FY16 | FY17 | FY18 | FY19 |
|--------------------------|-------|-------|-------|-------|--------|
| Net Sales | 3,598 | 5,211 | 7,015 | 9,485 | 6,361 |
| Exceptional write-offs | 0 | 0 | 0 | 0 | -3,869 |
| Reported Net Profit | 300 | 505 | 726 | 1,000 | -5,916 |
| | | | | | |
| Capital Work-in-Progress | 1,316 | 1,369 | 1,900 | 3,478 | 344 |
| Debtors | 593 | 678 | 752 | 1,393 | 574 |
| | | | | | |

Exhibit 13 Manpasand Beverages – Stock performance



Sharp Practices Case Study #3

Educomp

Company & Promoter background

- Incorporated in 1994, Educomp was founded by Mr Shantanu Prakash.
- The company went public in 2006 and by 2011, it was one of the best emerging companies to come out of India. Multiple awards were bestowed upon both the founder and the company.
- The vision of the company to upgrade the education standard of schools through the digital medium was laudable.

The Sharp Practice modus operandi

- The company sold equipment to schools which was financed by Educomp and recognized it as revenues.
- The schools were unable to repay the loans and the assets (mostly computers) had lost significant value leading to little recovery.
- The intent here may not have been malafide but it was a case of providing funding to a weak set of clientele on basis of poor collateral.
- Educomp used a subsidiary, discounted its receivables, and stood guarantee for the same. This helped it manage debt levels by moving it off the Balance Sheet (in this case, Contingent Liability). The guarantee was with recourse and should have been deemed as leverage.

The red flags & the bust

- Aggressive Accounting with respect to booking revenues upfront for asset sale. This led to creation of assets through borrowings and the same was booked as revenues and profit.
- Continuous negative cash flows meant that the pace of asset sale was much faster than the revenues coming in.
- In FY13, the company went into debt re-structuring and by FY17, the company's net worth was negative.
- Noteworthy to mention here is a recent quote from the founder, Mr Shantanu "There is no appreciation that businesses can fail. We failed as a business. Our model was wrong. It did not work."

Exhibit 14 Educomp – Key financials

| INR billion | 2009 | 2010 | 2011 | 2012 | 2013 | Notes |
|----------------------|-------|-------|--------|-------|-------|---|
| Revenues | 6.4 | 10.4 | 13.5 | 14.9 | 12.1 | Computers sold to schools |
| PAT | 1.3 | 2.8 | 3.4 | 1.4 | (1.3) | on loan booked as revenue |
| OCF | 1.6 | 1.8 | 1.9 | (0.7) | (4.8) | OCF turned negative |
| Free Cash Flow | (4.2) | (5.1) | (6. 3) | (4.4) | (6.0) | Constant negative free cash |
| Contingent Liability | 1.7 | 2.3 | 8.9 | 12 | 16 | Used a subsidiary, discounted its receivables and stood guarantee |

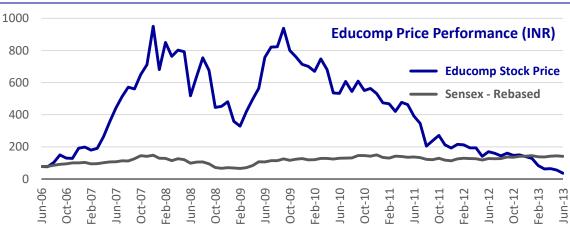


Exhibit 15 Educomp – Stock price performance

Sharp Practices Case Study #4

Gitanjali Gems

Company & Promoter background

- Established in 1966, Gitanjali's activities were spread across the entire value chain from rough diamond sourcing, cutting, polishing and distribution, jewelry manufacturing to branding and retailing gold and diamond jewelry in India and abroad.
- It was one of the first to launch branded daily-wear jewelry in 1994 by the brand name 'Gili'. At one point, it owned eight out of the top 10 jewelry brands in the country
- The promoter is Mr Mehul Choksi, currently a fugitive residing in Anitgua.

The Sharp Practice modus operandi

- High Receivable days of at least 150 days and going up to 300+ days in the period FY08-14.
- Inventory buildup was also significant which eventually saw significant write down in 2014.
- Promoter pledge and share price In July 2013, SEBI barred the promoter of the company
 Mr Mehul Choksi and 26 other entities from trading in the market for a period of 6 months.
 It is believed that the promoter along with these entities was indulging in market
 manipulation of company's shares. This led to a huge correction in stock price.

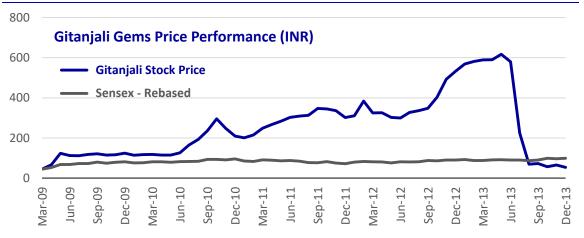
The red flags & the bust

- Tax rates and dividend payouts were mostly in single digit.
- Operating Cash Flow conversion was consistently low.
- Sales to related parties were in the range of 15-22% of total sales.

Exhibit 16 Gitanjali Gems: Key financials

| • | • | | | | | |
|----------------------------|------|------|-------|-------|-------|------------------------|
| INR billion | 2010 | 2011 | 2012 | 2013 | 2014 | Notes |
| Sales | 65.3 | 93.8 | 125.0 | 164.2 | 124.4 | |
| EBITDA | 4.8 | 5.9 | 8.8 | 11.9 | 8.6 | |
| PAT | 2.0 | 3.6 | 4.9 | 5.9 | 0.3 | |
| Tax Rate | 10% | 7% | 7% | 4% | 1% | Anemic Tax Rate |
| | | | | | | |
| Inventory | 20.8 | 29.0 | 36.9 | 43.5 | 35.0 | Inventory write down |
| Trade receivables | 32.3 | 40.2 | 53.8 | 71.9 | 94.8 | |
| Debt | 26.0 | 31.3 | 39.4 | 52.4 | 84.8 | |
| | | | | | | |
| Operating Cash Flow | -0.2 | 3.1 | -0.1 | -4.9 | -36.9 | Almost always negative |

Exhibit 17 Gitanjali Gems – Stock price performance



2014-19 Wealth Creation Study: Detailed findings

#1 Trend in Wealth Creation

INR 49 trillion Wealth Created during 2014-19

- Over the 5-year period 2014-19 (ended March), the top 100 Wealth Creating companies created wealth of INR 49 trillion. This is the highest ever in any 5-year span in the past.
- The pace of Wealth Creation is also robust at 22% CAGR vis-à-vis 12% for the BSE Sensex.
- As the later sections suggest, valuation re-rating has played a major role in Wealth Creation.

Exhibit 1 2014-19 Wealth Created at INR 49 trillion is the highest ever

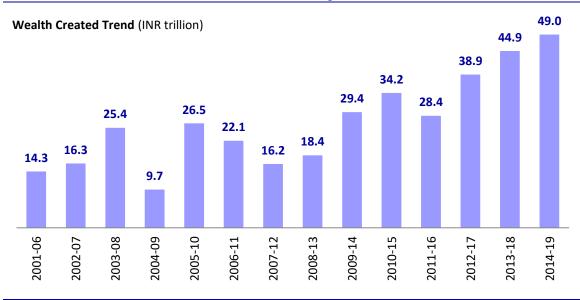
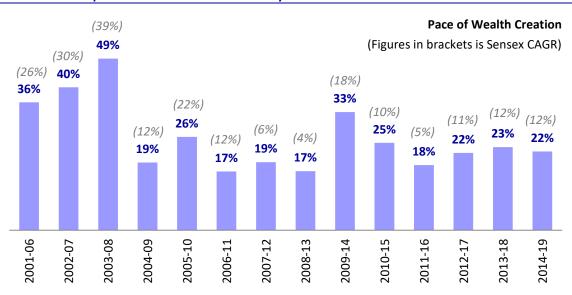


Exhibit 2 2014-19 pace of Wealth Creation is healthy at 22% CAGR vis-à-vis benchmark's 12% CAGR



Key Takeaway

Forget markets, think stocks

For the past 5 successive study periods, market benchmark indices have delivered returns ranging from 5% to 12%. Despite this, the top Wealth Creators created wealth at a robust pace of 18-25%. This reinforces our pet take on market timing, "Forget markets, think stocks."

The Biggest Wealth Creators

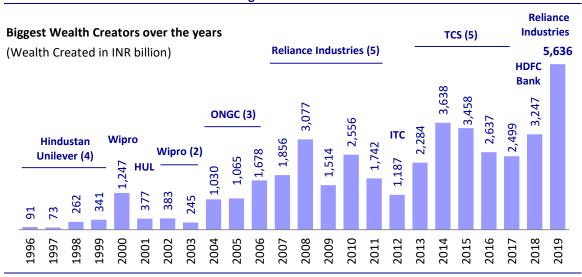
Reliance Industries smashes all records as the Biggest Wealth Creator

- After a gap of 7 years, **Reliance Industries** has once again emerged the biggest Wealth Creator over 2014-19. As Exhibit 4 suggests, the INR 5.6 trillion wealth created by Reliance is the highest ever so far by a huge margin.
- Exhibit 3 indicates that Reliance's P/E re-rating from 15x in 2014 to 22x in 2019 is a key driver behind the 24% stock return CAGR. Its PAT CAGR along the while was only 14%.
- Five of the top 10 biggest Wealth Creators are from the Financials sector.

Exhibit 3 Top 10 Biggest Wealth Creators (2014-19)

| Rank | Company | Wealth | Created | CAGR | (%) | P/E | (x) | RoE | (%) |
|-------|----------------|--------|---------|-------|-----|------|------|------|------|
| | | INR bn | % share | Price | PAT | 2019 | 2014 | 2019 | 2014 |
| 1 | Reliance Inds | 5,636 | 11.5 | 24 | 14 | 22 | 15 | 10 | 10 |
| 2 | HDFC Bank | 4,085 | 8.3 | 25 | 21 | 28 | 21 | 15 | 20 |
| 3 | TCS | 3,655 | 7.5 | 13 | 11 | 24 | 22 | 35 | 39 |
| 4 | Hind. Unilever | 2,391 | 4.9 | 23 | 12 | 60 | 36 | 79 | 102 |
| 5 | HDFC | 1,800 | 3.7 | 17 | 15 | 21 | 17 | 15 | 21 |
| 6 | Kotak Mahindra | 1,795 | 3.7 | 28 | 24 | 35 | 24 | 12 | 13 |
| 7 | Bajaj Finance | 1,594 | 3.3 | 76 | 41 | 44 | 12 | 20 | 18 |
| 8 | Infosys | 1,497 | 3.1 | 13 | 7 | 21 | 18 | 23 | 24 |
| 9 | Maruti Suzuki | 1,420 | 2.9 | 28 | 19 | 34 | 24 | 13 | 12 |
| 10 | Axis Bank | 1,209 | 2.5 | 22 | -4 | 40 | 11 | 7 | 16 |
| Total | of Top 10 | 25,081 | 51 | 22 | 13 | 27 | 19 | 15 | 18 |
| Total | of Top 100 | 49,048 | 100 | 23 | 15 | 25 | 18 | 15 | 16 |

Exhibit 4 Reliance Industries back with a bang!



Key Takeaway

Value Migration at play again?

Value Migration (VM) means that value (i.e. profit/market cap) moves from outmoded business models to superior ones. The previous 6 biggest Wealth Creators were VM beneficiaries – TCS (value migrating "from Boston to Bengaluru") and HDFC (from PSU banks to private). Reliance's resurgence too may be partly attributed to Value Migration – expected value unlocking in Reliance Retail (VM from mom-n-pop stores) and Reliance Jio (VM from voice to data).

The Fastest Wealth Creators

Indiabulls Ventures is the Fastest Wealth Creator for the second consecutive year

- For the second study in a row, **Indiabulls Ventures** has emerged as the Fastest Wealth Creator, with 2014-19 stock price multiplier of 18x (78% CAGR).
- Indiabulls' PAT CAGR is a healthy 35%, amplified by a 10x rise in P/E (58% CAGR).
- Bajaj Finance is the only company with a unique distinction of being in the top 10 list of both, biggest and fastest.
- Six of the top 10 Fastest Wealth Creators had single-digit P/E multiple in base year 2014, and 7 had market cap below INR 30 billion.
- INR 1 million invested equally among the top 10 fastest Wealth Creators in 2014 would have grown to INR 11 million in 2019; return CAGR of 61% v/s barely 12% for the Sensex.

Exhibit 5 Top 10 Fastest Wealth Creators (2014-19)

| Rank | Company | Price Appn. | CAGF | R (%) | Mkt Ca | (INR bn) | P/E | (x) |
|------|----------------------|-------------|-------|-------|--------|----------|------|------|
| | | (x) | Price | PAT | 2019 | 2014 | 2019 | 2014 |
| 1 | Indiabulls Ventures | 18 | 78 | 35 | 197 | 4 | 43 | 4 |
| 2 | Bajaj Finance | 17 | 76 | 41 | 1,748 | 90 | 44 | 12 |
| 3 | Bombay Burmah | 13 | 68 | 36 | 91 | 7 | 10 | 4 |
| 4 | Aarti Industries | 13 | 67 | 26 | 136 | 11 | 28 | 7 |
| 5 | Sundram Fasteners | 9 | 55 | 31 | 119 | 13 | 26 | 11 |
| 6 | Bajaj Finserv | 9 | 55 | 16 | 1,120 | 126 | 35 | 8 |
| 7 | Atul | 8 | 52 | 14 | 106 | 13 | 25 | 6 |
| 8 | Rajesh Exports | 7 | 49 | 29 | 197 | 26 | 15 | 7 |
| 9 | Honeywell Auto | 7 | 49 | 33 | 197 | 27 | 55 | 31 |
| 10 | Britannia Industries | 7 | 49 | 25 | 741 | 101 | 64 | 26 |

Exhibit 6 History of Fastest Wealth Creators

| Year | Company | 5-yr Price Multiple (x) | 5-yr Price CAGR % | Year | Company | 5-yr Price Multiple (x) | 5-yr Price CAGR % |
|------|------------------|----------------------------|----------------------|------|---------------------|----------------------------|----------------------|
| 1996 | Dr Reddy's Labs | 30 | 97 | 2008 | Unitech | 837 | 284 |
| 1997 | Cipla | 7 | 48 | 2009 | Unitech | 54 | 122 |
| 1998 | Satyam Computers | 23 | 87 | 2010 | Unitech | 28 | 95 |
| 1999 | Satyam Computers | 75 | 137 | 2011 | Sanwaria Agro | 50 | 119 |
| 2000 | SSI | 223 | 195 | 2012 | TTK Prestige | 24 | 89 |
| 2001 | Infosys | 66 | 131 | 2013 | TTK Prestige | 28 | 95 |
| 2002 | Wipro | 69 | 133 | 2014 | Eicher Motors | 27 | 94 |
| 2003 | e-Serve | 50 | 119 | 2015 | Ajanta Pharma | 50 | 119 |
| 2004 | Matrix Labs | 75 | 137 | 2016 | Ajanta Pharma | 53 | 121 |
| 2005 | Matrix Labs | 136 | 167 | 2017 | Ajanta Pharma | 29 | 96 |
| 2006 | Matrix Labs | 182 | 183 | 2018 | Indiabulls Ventures | 30 | 97 |
| 2007 | B F Utilities | 665 | 267 | 2019 | Indiabulls Ventures | 18 | 78 |

Key Takeaway

High-quality midcaps at reasonable valuations are potential multibaggers

Of the top 10 Fastest Wealth Creators, 8 were trading at a P/E of less than 12x in 2014. Of these, 6 had a market cap of less than INR 30 billion. High-quality midcaps run by high-quality managements bought at reasonable price are potential multi-baggers. Having said that, mortality of midcaps is also fairly high. The main factor to ensure here is Integrity of Management, the theme of this year's study.

December 2019 3:

The Most Consistent Wealth Creators

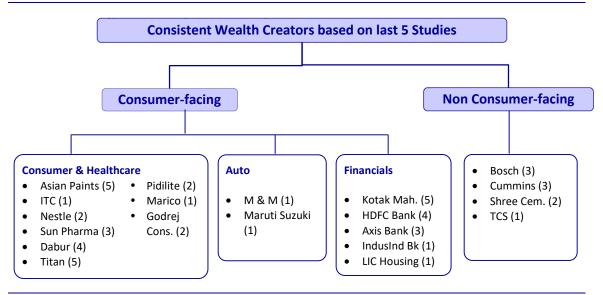
IndusInd Bank is the Most Consistent Wealth Creator

- IndusInd Bank has emerged the Most Consistent Wealth Creator by virtue of
 - 3. Appearing among top 100 Wealth Creators in each of the last 10 studies; and
 - 4. Recording the highest Price CAGR of 49% over the 10-year period 2009 to 2019.
- Study after study has confirmed that consumer-facing businesses are less vulnerable to business cycles, and hence offer steady long-term return.

Exhibit 7 Top 10 Most Consistent Wealth Creators (2009-19)

| | | Appeared in | 10-yr Price | 10-yr PAT | P/E | (x) | RoE | : (%) |
|------|---------------------|--------------|-------------|-----------|------|------|------|-------|
| Rank | Company | WC Study (x) | CAGR (%) | CAGR (%) | 2019 | 2009 | 2019 | 2009 |
| 1 | IndusInd Bank | 10 | 49 | 35 | 33 | 7 | 13 | 12 |
| 2 | Pidilite Industries | 10 | 40 | 24 | 67 | 19 | 23 | 16 |
| 3 | Titan Company | 10 | 40 | 23 | 72 | 20 | 23 | 31 |
| 4 | Shree Cement | 10 | 39 | 7 | 57 | 4 | 12 | 49 |
| 5 | Asian Paints | 10 | 34 | 18 | 67 | 19 | 23 | 33 |
| 6 | Kotak Mahindra | 10 | 34 | 27 | 35 | 15 | 12 | 10 |
| 7 | Godrej Consumer | 10 | 32 | 29 | 33 | 20 | 29 | 30 |
| 8 | TCS | 10 | 31 | 20 | 24 | 10 | 35 | 33 |
| 9 | HDFC Bank | 10 | 28 | 26 | 28 | 18 | 15 | 15 |
| 10 | LIC Housing | 10 | 28 | 16 | 11 | 4 | 15 | 24 |

Exhibit 8 Consumer-facing companies more likely to be Consistent Wealth Creators



NOTE: Bracket indicates number of times appeared within top 10 in last 5 Wealth Creation Studies

Key Takeaway

"Be greedy when others are fearful and fearful when others are greedy."

These words of Warren Buffet were true in 2009 when post the global financial crisis, bluest of blue chip stocks were available at reasonable valuations (trailing 12-month P/E of less than 20x). All such stocks delivered handsome returns over the next 10 years. However, as things stand, the quality of the same stocks remains pristine. However, all investors are greedy to own these very stocks, driving up valuations. It may well be time to be fearful in some of them.

Wealth Creators Index (Wealthex) v/s BSE Sensex

Superior earnings and price performance over benchmark

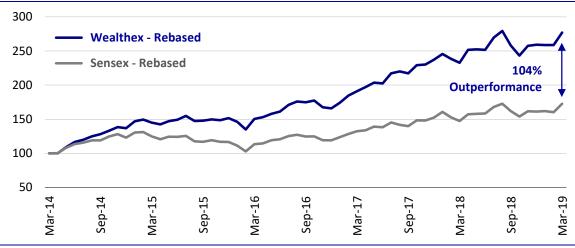
We compare Wealthex (top 100 Wealth Creators Market Cap index) with the BSE Sensex on 3 parameters - (1) market performance, (2) earnings growth and (3) valuation.

- Market performance: Over 2014-19, Wealth Creating companies have delivered return CAGR of 23% v/s 12% for the BSE Sensex. March 2019 over March 2014, Wealthex is up 177% whereas the Sensex is up 73% i.e. 104% outperformance over 5 years.
- **Earnings growth:** Wealthex clocked 5-year earnings CAGR of 14% v/s 2% for BSE Sensex. Further, YoY earnings growth for Wealthex is higher in 4 of the 5 years 2014 through 2019.
- Valuation: Valuation re-rating has contributed 8% to Sensex CAGR of 12%. In contrast, much of Wealthex's 23% CAGR is led by the 14% earnings CAGR.

Exhibit 9 Wealthex v/s Sensex: Superior market performance on the back of higher earnings growth

| | Mar-14 | Mar-15 | Mar-16 | Mar-17 | Mar-18 | Mar-19 | 5 Year CAGR (%) |
|----------------------------|--------|--------|--------|--------|--------|--------|--------------------|
| BSE Sensex | 22,386 | 27,957 | 25,342 | 29,621 | 32,969 | 38,673 | 12 |
| YoY (%) | | 25 | (9) | 17 | 11 | 17 | |
| Wealthex - based to Sensex | 22,386 | 32,455 | 33,636 | 42,747 | 52,094 | 62,016 | 23 |
| YoY (%) | | 45 | 4 | 27 | 22 | 19 | |
| Sensex EPS (INR) | 1,334 | 1,348 | 1,330 | 1,345 | 1,361 | 1,482 | 2 |
| YoY (%) | | 1 | (1) | 1 | 1 | 9 | |
| Wealthex EPS (INR) | 1,042 | 1,333 | 1,372 | 1,628 | 2,093 | 2,494 | 14 |
| YoY (%) | | 15 | 21 | 15 | 10 | 8 | |
| Sensex PE (x) | 17 | 21 | 19 | 22 | 24 | 26 | 9 |
| Wealthex PE (x) | 17 | 22 | 19 | 21 | 23 | 25 | 8 |





Key Takeaway

Is the Active versus Passive debate settled in India at least?

Globally, it's almost settled that active fund managers are unable to outperform the benchmark indices after accounting for their management fee. This has led to a surge in passive funds which simply mimic the benchmark. However, this scenario seems far-fetched in the Indian context where a fairly large number of stocks handsomely outperform the benchmarks.

Wealth Creation: Sector analysis

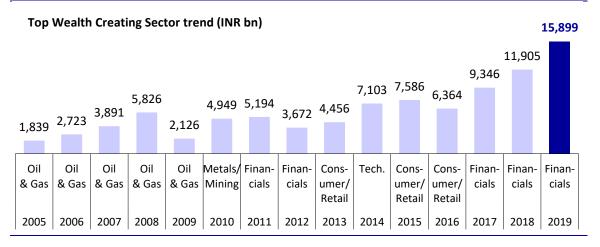
Financials is the biggest Wealth Creating sector for the third consecutive year

- **Financials** has emerged as India's biggest Wealth Creating sector over 2014-19 for the third consecutive year. The surge in Wealth Creation in the sector has been led by private banks and NBFCs.
- In terms of share of Wealth Created, IT is the biggest loser over the last 5 years, and Oil &
 Gas is the biggest gainer.
- Wealth Creation during 2014-19 was highly concentrated top 5 sectors accounted for a high 85% of total Wealth Created.

Exhibit 11 Financials is the top Wealth Creating sector

| Sector | wc | Share o | of WC % | CAGR 14- | 19 (%) | P/E (| x) | RoE (%) | |
|----------------------|----------|---------|---------|----------|--------|-------|------|---------|------|
| (No of companies) | (INR bn) | 2019 | 2014 | Price | PAT | 2019 | 2014 | 2019 | 2014 |
| Financials (23) | 15,899 | 32 | 19 | 27 | 12 | 28 | 15 | 12 | 17 |
| Consumer/Retail (21) | 8,813 | 18 | 20 | 25 | 15 | 53 | 36 | 29 | 33 |
| Oil & Gas (6) | 7,800 | 16 | 1 | 23 | 18 | 16 | 13 | 13 | 11 |
| Technology (5) | 5,715 | 12 | 24 | 12 | 10 | 22 | 20 | 29 | 30 |
| Auto (12) | 3,216 | 7 | 11 | 26 | 23 | 28 | 25 | 15 | 13 |
| Healthcare (6) | 1,607 | 3 | 9 | 29 | 22 | 31 | 23 | 12 | 12 |
| Metals / Mining (2) | 1,083 | 2 | 2 | 19 | 19 | 12 | 12 | 22 | 11 |
| Cement (3) | 1,074 | 2 | 4 | 18 | 6 | 48 | 29 | 9 | 12 |
| Capital Goods (4) | 850 | 2 | 4 | 31 | 16 | 31 | 17 | 18 | 15 |
| Utilities (1) | 487 | 1 | - | 14 | 22 | 8 | 12 | 21 | 13 |
| Telecom (1) | 88 | 0 | 2 | 15 | P to L | _ | 112 | _ | 10 |
| Others (16) | 2,417 | 5 | 2 | 28 | 20 | 30 | 22 | 15 | 14 |
| Total | 49,048 | 100 | 100 | 23 | 15 | 25 | 18 | 15 | 16 |

Exhibit 12 Financials sector significantly beats its own previous high of Wealth Creation



Key Takeaway

Sustaining its No.1 position will be a challenge for the Financials sector

In FY20, the Financials sector has been witness to a major crisis, triggered by the default of IL&FS. Several leading banks and NBFCs have seen a sharp rise in non-performing assets and provisions for the same. Overall, with the Indian economy too in a tailspin, the Financials sector will find it challenging to lead Wealth Creation during the next study period i.e. FY15-20.

#7 w

Wealth Creation: Ownership - Private v/s PSU

PSUs remain insignificant in Wealth Creation; privatization a great idea

- PSUs' (public sector undertakings) Wealth Creation performance during 2014-19 was weak:
 - The number of PSUs in the top 100 Wealth Creators is only 9.
 - Wealth Created by these 9 PSUs is just 6% of total.
- The 9 Wealth Creating PSUs are IOC, BPCL, HPCL, Power Grid Corporation, Petronet LNG, Indraprastha Gas, LIC Housing, Bharat Electronics, and NBCC.
- The only positive is that Wealth-Creating PSUs' 2014-19 PAT CAGR at 22% is higher than private sector's 13%. This has led to PSUs' price CAGR of 20% almost matching that of the private sector.

Exhibit 13 PSUs remain insignificant in Wealth Creation

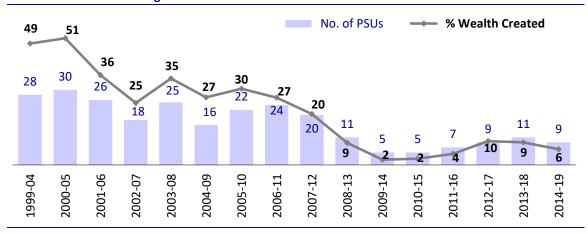
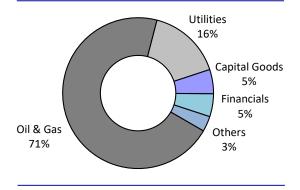


Exhibit 14 PSUs, as a whole, have seen a valuation de-rating despite healthy PAT CAGR and rise in RoE

| 2014 | -2019 |
|------|--------------------------|
| PSU | Private |
| 9 | 91 |
| 6 | 94 |
| 3 | 12 |
| 22 | 13 |
| 20 | 23 |
| 11 | 19 |
| 10 | 28 |
| 12 | 17 |
| 18 | 15 |
| | PSU 9 6 3 22 20 11 10 12 |

Exhibit 15 PSUs which are virtual monopolies are creating wealth e.g. oil marketers, Power Grid



Key Takeaway

Privatization is the only solution

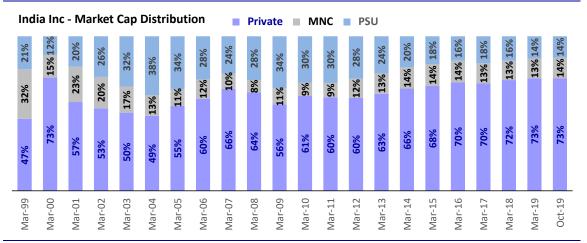
It's more than evident that the bureaucratic culture and lack of entrepreneurship in PSUs prevent them from effectively competing with their private sector counterparts. We believe the government must persist with its mantra of "Minimum government, maximum governance", including an active plan to privatize non-core PSUs. This will serve the dual purpose of -

- (1) Revitalizing the PSUs, and
- (2) Raising much needed revenue for the government.

The rise and rise of the Indian entrepreneur

- We observed India's market cap distribution over the last 20 years into 3 categories PSUs,
 MNCs and private entrepreneurs.
- As Exhibit 16 shows, there is a clear and continuous migration of value from PSUs and MNCs to private entrepreneurs.
- PSUs' share of market cap is down from 21% in 1999 to 14% currently. Likewise, share of MNCs is down from 32% to 14%. Both their losses have been the gain of the Indian private entrepreneur, with market cap share rising from 47% in 1999 to 73% currently.
- Expect the above trend to continue as
 - 1. MNCs increasingly prefer the unlisted route to expand their presence in India and
 - 2. PSUs continue to see their competitive advantage eroding.

Exhibit 16 Indian private entrepreneurs are gaining significant share of India's market cap



#8 Wealth Creation: Market Cap Rank Analysis

In our 2015 Wealth Creation Study, we called large, mid and small cap stocks as Mega, Mid and **Mini**, defined as under:

- Mega Top 100 stocks by market cap rank for any given year
- Mid Next 200 stocks by market cap rank
- Mini All stocks below the top 300 ranks.

Market cap ranks of companies change constantly. Over time, companies also cross over from one category to another. For the period 2014-19, the market cap ranks crossover matrix stands as under -

Exhibit 17 2014-19: Market cap rank crossovers: Number of companies and average returns

| | FI | FROM (in 2014) | | | | | |
|---------------------------|--------------|----------------|-----------|--|--|--|--|
| | Mini | Mid | Mega | | | | |
| TO (in 2019) | | | | | | | |
| Mega Avg Return | 0 — | 14 34% | 75 12% | | | | |
| Mid Avg Return | 42 43% | 103 18% | 22 1% | | | | |
| Mini Avg Return | 2,481 11% | 79 -11% | 3 -20% | | | | |
| Merged / De-listed | 636 | 4 | 0 | | | | |
| TOTAL | 3,159 | 200 | 100 | | | | |

How to read the table

- In 2014, there were 3,159 Mini companies (i.e. ranked beyond 300). Of these, none moved to the Mega category by 2019. 42 Minis moved to Mid category by 2019, delivering an average 5-year return CAGR of 43% in the process. Next, 2,481 Mini companies stayed as Mini and delivered average 11% return CAGR. (636 companies got merged or de-listed.)
- Of the 200 Mid companies in 2014, 14 moved to Mega by 2019, delivering an average 34% return CAGR in the process. 103 Mid companies stayed as Mid (18% return CAGR) and 79 slipped to the Mini category (-11% return CAGR). 4 companies were merged or de-listed.
- Finally, of the 100 Mega companies in 2014, 75 stayed as Mega (12% return CAGR), 22 slipped to Mid (1% return CAGR), and 3 slipped to the Mini category (-20% return CAGR).
- Note: During the 2014-19 period, benchmark return was about 12%.

December 2019

We specifically analyze the 3 positive crossovers -

- 1. Mini-to-Mega
- 2. Mini-to-Mid and
- 3. Mid-to-Mega.

8.1 Mini-to-Mega: No company

During 2014-19, no company moved from Mini to Mega.

8.2 Mini-to-Mid: 42 companies, 43% average Price CAGR

- During 2014-19, 42 companies crossed over from Mini to Mid category, generating an average return CAGR of 43%, v/s 12% for the Sensex.
- Of these 42 Mini-to-Mid stocks, 11 feature in our list of 100 Biggest Wealth Creators.
- All stocks are within the top 20 Fastest Wealth Creators.

Exhibit 18 Mini-to-Mid (2014-19): 11 of 42 Mini-to-Mid stocks feature among top 100 Wealth Creators

| | Mkt Cap Rank | | WC R | ank * | Price | PAT | P/E | (x) |
|---------------------|--------------|------|---------|---------|--------|--------|------|------|
| | 2019 | 2014 | Biggest | Fastest | CAGR % | CAGR % | 2019 | 2014 |
| Indiabulls Ventures | 138 | 691 | 62 | 1 | 78% | 35% | 43 | 4 |
| Bombay Burmah | 248 | 557 | 98 | 3 | 68% | 36% | 10 | 4 |
| Aarti Industries | 191 | 443 | 74 | 4 | 67% | 26% | 28 | 7 |
| Sundram Fasteners | 209 | 407 | 85 | 5 | 55% | 31% | 26 | 11 |
| Atul | 219 | 413 | 92 | 7 | 52% | 14% | 25 | 6 |
| Escorts | 236 | 392 | 99 | 11 | 47% | 14% | 21 | 6 |
| Edelweiss.Finance | 151 | 310 | 68 | 12 | 47% | 35% | 18 | 10 |
| SRF | 189 | 318 | 79 | 14 | 46% | 32% | 22 | 13 |
| NBCC | 207 | 334 | 90 | 16 | 45% | 8% | 32 | 7 |
| Manappuram Fin. | 223 | 342 | 96 | 17 | 42% | 33% | 11 | 8 |
| Bharat Financial | 172 | 308 | 72 | 19 | 41% | 70% | 16 | 32 |
| AVERAGE | | | | | 54% | 30% | 23 | 10 |

^{* 2014-19} Wealth Creation Rank

8.3 Mid-to-Mega: 14 companies, 34% average Price CAGR

- During 2014-19, 14 companies crossed over from Mid to Mega.
- Of these, 13 made it to this year's list of 100 Biggest Wealth Creators. (Only IDBI Bank was left out as much of its market cap increase was by way of fresh equity infusion rather than price appreciation.)
- The Mid-to-Mega Wealth Creators delivered average return CAGR of 37% over 2014-19 v/s 12% for Sensex.

Exhibit 19 Mid-to-Mega (2014-19): 13 of 14 companies feature among top 100 Wealth Creators

| | Mkt Ca | Mkt Cap Rank | | WC Rank * | | PAT | P/E | (x) |
|----------------------|--------|--------------|---------|-----------|--------|--------|------|------|
| | 2019 | 2014 | Biggest | Fastest | CAGR % | CAGR % | 2019 | 2014 |
| Bajaj Finance | 15 | 124 | 7 | 2 | 76% | 41% | 44 | 12 |
| Britannia Industries | 39 | 115 | 17 | 10 | 49% | 25% | 64 | 26 |
| UPL | 60 | 141 | 33 | 20 | 39% | 12% | 27 | 8 |
| Piramal Enterprises | 57 | 120 | 31 | 22 | 38% | L to P | 29 | _ |
| Biocon | 81 | 135 | 38 | 28 | 34% | 12% | 51 | 21 |
| Havells India | 61 | 101 | 32 | 31 | 33% | 12% | 61 | 26 |
| HPCL | 71 | 108 | 35 | 32 | 33% | 43% | 6 | 9 |
| Berger Paints | 95 | 139 | 45 | 34 | 32% | 15% | 64 | 32 |
| Torrent Pharma | 89 | 126 | 44 | 41 | 30% | -2% | 55 | 13 |
| Petronet LNG | 79 | 111 | 41 | 43 | 30% | 26% | 17 | 15 |
| Indiabulls Housing | 82 | 140 | 43 | 44 | 29% | 21% | 9 | 5 |
| Bajaj Holdings | 78 | 103 | 40 | 53 | 27% | 9% | 12 | 6 |
| P & G Hygiene | 85 | 109 | 42 | 54 | 27% | 7% | 83 | 34 |
| AVERAGE | | | | | 37% | 17% | 37 | 16 |

^{* 2014-19} Wealth Creation Rank

Key Takeaway

Mid-to-Mega is a potent investment strategy

Every year, our analysis of market cap crossovers lead to the same findings -

- Companies leap-frogging from Mini to Mega is very rare.
- A fair number of companies move from Mini to Mid and deliver supernormal returns. However, they need to be identified from a large base of about 500 companies.
- The most potent and focused hunting ground for high-performing stocks is the Mid category i.e. 200 stocks with market cap rank 101 to 300.
- Over the next five years, 15-20 of these stocks will cross over to the Mega category and deliver handsome returns in the process.



#9 Wealth Creation: Valuation parameters analysis

Payback ratio < 1 offers distinctly superior returns

Every Wealth Creation Study invariably suggests that Payback Ratio < 1x is the most reliable valuation metric for supernormal returns.

(Payback is a proprietary ratio of Motilal Oswal, defined as current market cap divided by estimated profits over the next five years. For 2014, we calculate this ratio based on market cap as on 31-Mar-2014 divided by the actual profits reported over the next five years).

Exhibit 20 Payback ratio less than 1x remains a sure shot formula for multi-baggers

| Range | No. of | wc | % Share | CAGR | | RoE | |
|---------------|--------|---------|---------|-------|-----|------|------|
| in 2014 | Cos. | (INR b) | of WC | Price | PAT | 2019 | 2014 |
| | | | | | | | |
| P/E | | | | | | | |
| <10 | 27 | 6,413 | 13 | (32) | 18 | 16 | 14 |
| 10-15 | 17 | 13,011 | 27 | 22 | 11 | 12 | 13 |
| 15-20 | 9 | 4,666 | 10 | 18 | 12 | 17 | 21 |
| 20-25 | 13 | 13,054 | 27 | 21 | 16 | 18 | 23 |
| 25-30 | 8 | 2,483 | 5 | 23 | 14 | 15 | 16 |
| >30 | 26 | 9,421 | 19 | 24 | 22 | 27 | 20 |
| Total | 100 | 49,048 | 100 | 23 | 15 | 15 | 16 |
| | | | | | | | |
| Price / Book | | | | | | | |
| <1 | 8 | 2,040 | 4 | 25 | 25 | 16 | 10 |
| 1-2 | 26 | 13,928 | 28 | 23 | 12 | 12 | 12 |
| 2-3 | 15 | 5,390 | 11 | 34 | 23 | 14 | 12 |
| 3-4 | 11 | 5,649 | 12 | 23 | 15 | 13 | 17 |
| 4-5 | 12 | 8,093 | 16 | 21 | 14 | 17 | 23 |
| 5-6 | 3 | 423 | 1 | 36 | 24 | 19 | 16 |
| >6 | 25 | 13,525 | 28 | 19 | 12 | 32 | 37 |
| Total | 100 | 49,048 | 100 | 23 | 15 | 15 | 16 |
| | | | | | | | |
| Price / Sales | | | | | | | |
| <1 | 24 | 10,654 | 22 | 25 | 21 | 14 | 10 |
| 1-2 | 27 | 6,208 | 13 | 30 | 17 | 15 | 16 |
| 2-3 | 18 | 9,082 | 19 | 25 | 4 | 10 | 15 |
| 3-4 | 13 | 7,387 | 15 | 19 | 14 | 18 | 19 |
| > 4 | 18 | 15,717 | 32 | 20 | 14 | 21 | 25 |
| Total | 100 | 49,048 | 100 | 23 | 15 | 15 | 16 |
| | | | | | | | |
| Payback ratio | | | | | | | |
| < 1 | 26 | 7,977 | 16 | 36 | 23 | 15 | 12 |
| 1-2 | 26 | 12,767 | 26 | 24 | 18 | 14 | 12 |
| 2-3 | 22 | 18,620 | 38 | 19 | 10 | 16 | 21 |
| > 3 | 26 | 9,685 | 20 | 23 | 12 | 23 | 25 |
| Total | 100 | 49,048 | 100 | 23 | 15 | 15 | 16 |

December 2019

PEG < 1x is also a solid formula for superior returns

- For the purposes of this section, PEG (P/E to Growth ratio) is obtained by dividing trailing 12-month P/E by future 5-year earnings CAGR.
- We have used perfect foresight of 5 years' earnings to calculate PEG. Thus, if a stock's P/E in 2014 was 20x, and its 2014-19 PAT CAGR is 25%, its 2014 PEG works out to 0.8x (20 ÷ 25).
- Clearly, lower the PEG, higher the likely return.
- Our theme study last year almost conclusively established that stocks with PEG less than 1x tend to significantly outperform the market.
- As tabled below, the story was no different for the 2019 Wealth Creators. PEG < 0.5x outperformed across all valuation metrics. Even stocks with PEG < 1.5x delivered higher than average return.

Exhibit 21 PEG less than 1x is a solid formula for high returns

| PEG Range | No. of | wc | % Share | CAGR (%) | | RoE | (%) |
|-------------|--------|---------|---------|----------|-----|------|------|
| in 2014 (x) | Cos. | (INR b) | of WC | Price | PAT | 2019 | 2014 |
| | _ | | | | | | |
| 0.5 | 16 | 3,766 | 8 | 52 | 32 | 20 | 14 |
| 0.5-1 | 20 | 6,129 | 12 | 25 | 22 | 17 | 12 |
| 1-1.5 | 20 | 18,493 | 38 | 26 | 17 | 13 | 14 |
| 1.5-2 | 11 | 2,867 | 6 | 20 | 9 | 20 | 19 |
| 2-3 | 12 | 7,817 | 16 | 15 | 10 | 27 | 30 |
| 3 | 11 | 6,292 | 13 | 21 | 8 | 19 | 28 |
| Others | 10 | 3,685 | 8 | 20 | -4 | 6 | 13 |
| Total | 100 | 49,048 | 100 | 23 | 15 | 15 | 16 |

Note: PEG here is calculated as P/E of March 2014 divided by 2014-19 PAT CAGR "Others" are cases where PAT CAGR cannot be calculated e.g. turnarounds

#10 The cash gushers and guzzlers

We list below the top 10 and bottom 10 Indian companies (all from non-Financials sector) in terms of Reported PAT, Operating Cash Flow (OCF) and FCF. Reliance Industries is a paradoxical case of generating the highest PAT and OCF, but the lowest FCF. One reason for this is its heavy capex for its bolt-on petchem projects and Reliance Jio.

(For this section, OCF is calculated as Cash Profit adjusted for change in Debtors, Inventory and Creditors. FCF is calculated as OCF minus Capex, including acquisitions. Further, cumulative 5-year is from FY15 to FY19. Over this period, BSE Sensex has returned 12% CAGR.)

Exhibit 22 Absolute PAT or Cash Flow numbers don't guarantee stock price performance

| INR billion | Cumulative | 5-year | INR billion | Cumulative | 5-year |
|---------------------|------------|------------|----------------------|------------|------------|
| | 5-yr PAT | Price CAGR | | 5-yr PAT | Price CAGR |
| Reliance Industries | 1,589 | 24% | Tata Steel BSL | -312 | -42% |
| TCS | 1,277 | 13% | Reliance Comm. | -311 | -50% |
| ONGC | 1,082 | -6% | IDBI Bank | -308 | -7% |
| HDFC Bank | 796 | 25% | Alok Industries | -238 | -11% |
| IOC | 764 | 18% | Punjab National Bank | -208 | -9% |
| Infosys | 716 | 13% | JP Associates | -174 | -37% |
| Coal India | 618 | -4% | Bank of India | -170 | -15% |
| HDFC | 582 | 17% | IOB | -168 | -22% |
| NTPC | 547 | 6% | Videocon Industries | -143 | -57% |
| ITC | 532 | 5% | MTNL | -141 | -5% |

| INR billion | Cumulative | 5-year | INR billion | Cumulative | 5-year |
|---------------------|------------|------------|------------------|------------|------------|
| | 5-yr OCF | Price CAGR | | 5-yr OCF | Price CAGR |
| Reliance Industries | 2,472 | 24% | Reliance Comm. | -512 | -50% |
| ONGC | 1,689 | -6% | JP Associates | -228 | -37% |
| IOC | 1,228 | 18% | Tata Steel BSL | -181 | -42% |
| TCS | 1,151 | 13% | Tata Tele. Maha. | -140 | -16% |
| Bharti Airtel | 1,147 | 1% | MTNL | -118 | -5% |
| Tata Motors | 1,025 | -15% | Reliance Naval | -116 | -21% |
| HDFC | 726 | 17% | Jaypee Infratech | -91 | -35% |
| Coal India | 724 | -4% | Prestige Estates | -86 | 8% |
| Infosys | 693 | 13% | Alok Industries | -83 | -11% |
| NTPC | 660 | 6% | Monnet Ispat | -76 | -20% |

| INR billion | Cumulative | 5-year | INR billion | Cumulative | 5-year |
|--------------------|------------|------------|---------------------|------------|------------|
| | 5-yr FCF | Price CAGR | | 5-yr FCF | Price CAGR |
| TCS | 1,040 | 13% | Reliance Industries | -1,047 | 24% |
| ONGC | 634 | -6% | Reliance Comm. | -683 | -50% |
| Infosys | 550 | 13% | Power Grid Corpn. | -597 | 14% |
| ITC | 442 | 5% | Tata Steel | -484 | 7% |
| Wipro | 419 | 5% | Tata Motors | -473 | -15% |
| Hindustan Zinc | 390 | 17% | NTPC | -389 | 6% |
| Coal India | 371 | -4% | UPL | -371 | 39% |
| IOC | 356 | 18% | Larsen & Toubro | -215 | 10% |
| Maruti Suzuki | 312 | 28% | SAIL | -212 | -6% |
| Hindustan Unilever | 245 | 23% | Tata Steel BSL | -205 | -42% |

#11 Those who missed the Wealth Creators' list

The big who didn't beat the market

- During 2014-19, the Sensex return CAGR was 11.6%.
- 19 companies (Exhibit 23) created enough wealth to qualify among the 100 biggest Wealth Creators, but failed to make it to the final list as their stock return CAGR was lower than the Sensex.
- They made way for 19 others to join the list (Exhibit 24).

| Exhibit 23 | Those | who | miccod | the | lict |
|------------|-------|-----|--------|-----|------|
| EXPIDIT 73 | Tnose | wno | misseo | Lne | IISL |

| Exhibit 24 | and | l those w | ho mad | le it |
|------------|-----|-----------|--------|-------|
|------------|-----|-----------|--------|-------|

| Allibit 25 Those who missed the list | | | LATITUTE 24 and those who made it | | | | |
|--------------------------------------|---------|----------|-----------------------------------|--------------------|---------|----------|------|
| 2014-19 | WC * | Price | Potential | 2014-19 | WC * | Price | Size |
| | (INR b) | CAGR (%) | Size Rank ** | | (INR b) | CAGR (%) | Rank |
| SBI | 1,013 | 11 | 12 | IIFL Finance | 113 | 41 | 82 |
| ITC | 786 | 5 | 16 | Astral Poly | 110 | 38 | 83 |
| L&T | 754 | 10 | 19 | Bata India | 108 | 20 | 84 |
| HCL Tech. | 578 | 9 | 22 | Sundram Fasteners | 106 | 55 | 85 |
| NTPC | 350 | 6 | 38 | Bayer Crop Science | 105 | 24 | 86 |
| Wipro | 333 | 5 | 40 | P I Industries | 104 | 30 | 87 |
| GAIL (India) | 302 | 10 | 44 | Oberoi Realty | 103 | 19 | 88 |
| Bajaj Auto | 242 | 7 | 51 | Mindtree | 101 | 23 | 89 |
| Bosch | 237 | 11 | 53 | NBCC | 100 | 45 | 90 |
| M & M | 231 | 7 | 56 | Sundaram Finance | 100 | 21 | 91 |
| Bharti Infra. | 215 | 9 | 58 | Atul | 93 | 52 | 92 |
| Zee Entmt. | 165 | 10 | 68 | WABCO India | 88 | 27 | 93 |
| United Brew. | 152 | 11 | 74 | Tata Comm | 88 | 15 | 94 |
| Cadila Health. | 144 | 11 | 81 | GFL | 86 | 28 | 95 |
| Hindalco Inds. | 135 | 8 | 85 | Manappuram Finance | 86 | 42 | 96 |
| Concor | 127 | 11 | 87 | Trent | 85 | 29 | 97 |
| Siemens | 127 | 8 | 88 | Bombay Burmah | 84 | 68 | 98 |
| GSK Consumer | 122 | 11 | 91 | Escorts | 83 | 47 | 99 |
| Cipla | 117 | 7 | 98 | Exide Industries | 83 | 13 | 100 |

^{* -} Wealth Created; ** Size rank had the stock outperformed the benchmark

The fast who didn't make it big

- The 100th biggest Wealth Creator (Exide Industries) created Wealth of INR 83 billion.
- Nearly 1,300 more companies beat the 2014-19 benchmark return CAGR of 11.6% but did not make it to the list as they created absolute wealth less than INR 83 billion.
- Exhibit 25 lists the top 20 fastest among them.

Exhibit 25 The fast who didn't make it big

| 2014-19 | Price | Price | wc | 2014-19 | Price | Price | WC |
|-------------------|-----------------|-----------|---------|-----------------------|-----------------|-----------|---------|
| | CAGR (%) | Mult. (x) | (INR b) | | CAGR (%) | Mult. (x) | (INR b) |
| Minda Industries | 92 | 26 | 79 | Aegis Logistics | 64 | 12 | 62 |
| Garware Tech. | 80 | 19 | 23 | Johnson Controls | 64 | 12 | 51 |
| Phillips Carbon | 73 | 16 | 28 | Avanti Feeds | 64 | 12 | 51 |
| Kama Holdings | 72 | 15 | 36 | Sterlite Technologies | 64 | 12 | 79 |
| Gayatri Projects | 71 | 15 | 27 | GMM Pfaudler | 63 | 11 | 16 |
| KNR Constructions | 71 | 15 | 34 | Caplin Point Lab | 60 | 10 | 27 |
| Bharat Rasayan | 67 | 13 | 16 | HEG | 60 | 10 | 80 |
| Tata Metaliks | 66 | 13 | 15 | Navin Fluorine | 59 | 10 | 32 |
| IFB Industries | 65 | 12 | 36 | Muthoot Capital | 59 | 10 | 12 |
| Balaji Amines | 65 | 12 | 15 | Can Fin Homes | 58 | 10 | 40 |

Note: In choosing these companies, the condition is that base 2014 market cap is at least INR 1 billion

#12 Wealth Destruction: Companies & Sectors

The cyclical downturn continues

- The total Wealth Destroyed during 2014-19 is INR 8.6 trillion, 18% of the total Wealth Created by top 100 companies. This is slightly higher than in the previous two studies (Exhibit 26), mainly due to sharp correction in mid- and small cap stocks.
- Telecom, Financials and Cyclicals lead the Wealth Destruction pack (Exhibits 27 and 28).
- Similar to last year's study, the Financials sector has the unusual distinction of being the biggest Wealth Creator (thanks to private banks and NBFCs) and also the second biggest Wealth Destroyer (thanks to state-owned banks).

Exhibit 26 Level of Wealth Destruction sharply down

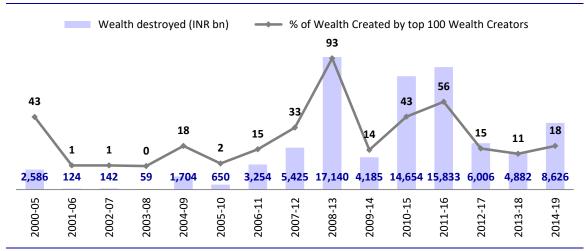


Exhibit 27
Widespread damage, no pattern as such

| Company | Wealth I | Destroyed | Price |
|-------------------------------|----------|-----------|----------|
| | INR bn | % Share | CAGR (%) |
| Vodafone Idea | 1,043 | 12 | -26 |
| Tata Motors | 760 | 9 | -15 |
| ONGC | 679 | 8 | -6 |
| Sun Pharma | 373 | 4 | -4 |
| Reliance Comm. | 320 | 4 | -50 |
| Coal India | 312 | 4 | -4 |
| Adani Enterprises | 243 | 3 | -9 |
| BHEL | 205 | 2 | -11 |
| Reliance Power | 166 | 2 | -31 |
| NMDC | 151 | 2 | -6 |
| Total of Above | 4,253 | 49 | |
| Total Wealth Destroyed | 8,626 | 100 | |

Exhibit 28

Telecom, Financials, Cyclicals lead the pack

| Sector | Wealth Destroyed (INR bn) | % Share |
|----------------------|---------------------------------|------------|
| Telecom | 1,473 | 17 |
| Banking & Finance | 1,469 | 17 |
| Metals / Mining | 893 | 10 |
| Auto | 841 | 10 |
| Oil & Gas | 788 | 9 |
| Capital Goods | 515 | 6 |
| Healthcare | 506 | 6 |
| Utilities | 442 | 5 |
| Const. / Real Estate | 350 | 4 |
| Others | 1,351 | 16 |
| Total | 8,626 | 100 |

Key Takeaway

Is Wealth Destruction poised to rise further?

Post FY19 (the terminal year of this study), the situation has worsened for India Inc – NBFC crisis, GDP slowdown, hangover of demonetization and GST, etc. The only key positive is cut in corporate tax rate from about 35% to 25%. Despite this, corporate profit growth in first half of FY20 is muted. If this situation persists, expect markets to correct further given rich valuations.

Appendix 1: MOSL 100: Biggest Wealth Creators (2014-2019)

| Rank | Company | Wealtl | h Created | CA | GR (2014- | 19, %) | RoE | : (%) | P/I | E (x) |
|------|----------------------|--------|-----------|-------|-----------|--------|------|-------|------|-------|
| | | INR bn | Share (%) | Price | PAT | Sales | 2019 | 2014 | 2019 | 2014 |
| 1 | Reliance Industries | 5,636 | 11.5 | 24 | 14 | 5 | 10 | 10 | 22 | 15 |
| 2 | HDFC Bank | 4,085 | 8.3 | 25 | 21 | 20 | 15 | 20 | 28 | 21 |
| 3 | TCS | 3,655 | 7.5 | 13 | 11 | 12 | 35 | 39 | 24 | 22 |
| 4 | Hind. Unilever | 2,391 | 4.9 | 23 | 12 | 6 | 79 | 102 | 60 | 36 |
| 5 | HDFC | 1,800 | 3.7 | 17 | 15 | 19 | 15 | 21 | 21 | 17 |
| 6 | Kotak Mahindra Bank | 1,795 | 3.7 | 28 | 24 | 20 | 12 | 13 | 35 | 24 |
| 7 | Bajaj Finance | 1,594 | 3.3 | 76 | 41 | 36 | 20 | 18 | 44 | 12 |
| 8 | Infosys | 1,497 | 3.1 | 13 | 7 | 11 | 23 | 24 | 21 | 18 |
| 9 | Maruti Suzuki | 1,420 | 2.9 | 28 | 19 | 14 | 13 | 12 | 34 | 24 |
| 10 | Axis Bank | 1,209 | 2.5 | 22 | -4 | 13 | 7 | 16 | 40 | 11 |
| 11 | ICICI Bank | 1,117 | 2.3 | 12 | -17 | 8 | 4 | 14 | 60 | 13 |
| 12 | Bajaj Finserv | 994 | 2.0 | 55 | 16 | 48 | 14 | 17 | 35 | 8 |
| 13 | Asian Paints | 907 | 1.8 | 22 | 12 | 8 | 23 | 30 | 67 | 43 |
| 14 | IOC | 878 | 1.8 | 18 | 24 | 1 | 15 | 9 | 9 | 11 |
| 15 | Titan Company | 777 | 1.6 | 34 | 14 | 13 | 23 | 29 | 72 | 32 |
| 16 | IndusInd Bank | 756 | 1.5 | 29 | 19 | 22 | 13 | 16 | 33 | 19 |
| 17 | Britannia Industries | 639 | 1.3 | 49 | 25 | 10 | 27 | 48 | 64 | 26 |
| 18 | Hindustan Zinc | 626 | 1.3 | 17 | 5 | 9 | 23 | 16 | 15 | 9 |
| 19 | Nestle India | 577 | 1.2 | 17 | 8 | 4 | 44 | 47 | 66 | 44 |
| 20 | BPCL | 522 | 1.1 | 21 | 15 | 2 | 20 | 20 | 11 | 8 |
| 21 | UltraTech Cement | 497 | 1.0 | 13 | 3 | 12 | 8 | 12 | 47 | 30 |
| 22 | Power Grid Corpn | 487 | 1.0 | 14 | 22 | 17 | 21 | 13 | 8 | 12 |
| 23 | Pidilite Industries | 480 | 1.0 | 32 | 16 | 11 | 23 | 23 | 67 | 35 |
| 24 | JSW Steel | 458 | 0.9 | 23 | 80 | 11 | 22 | 2 | 9 | 63 |
| 25 | Shree Cement | 453 | 0.9 | 27 | 7 | 16 | 12 | 17 | 57 | 24 |
| 26 | Godrej Consumer | 413 | 0.8 | 19 | 23 | 6 | 29 | 20 | 33 | 39 |
| 27 | Yes Bank | 405 | 0.8 | 27 | 1 | 24 | 6 | 23 | 37 | 9 |
| 28 | Dabur India | 405 | 0.8 | 18 | 11 | 4 | 27 | 34 | 48 | 35 |
| 29 | Eicher Motors | 398 | 0.8 | 28 | 43 | 8 | 25 | 18 | 25 | 43 |
| 30 | Adani Ports | 394 | 0.8 | 15 | 19 | 18 | 16 | 19 | 20 | 23 |
| 31 | Piramal Enterprises | 385 | 0.8 | 38 | L to P | 24 | 6 | -5 | 29 | N.A. |
| 32 | Havells India | 366 | 0.7 | 33 | 12 | 3 | 19 | 27 | 61 | 26 |
| 33 | UPL | 357 | 0.7 | 39 | 12 | 15 | 12 | 19 | 27 | 8 |
| 34 | Tech Mahindra | 342 | 0.7 | 12 | 8 | 13 | 21 | 32 | 18 | 14 |
| 35 | HPCL | 327 | 0.7 | 33 | 43 | 3 | 22 | 8 | 6 | 9 |
| 36 | Aurobindo Pharma | 312 | 0.6 | 25 | 16 | 19 | 17 | 31 | 19 | 13 |
| 37 | Marico | 310 | 0.6 | 27 | 18 | 11 | 37 | 35 | 40 | 28 |
| 38 | Biocon | 281 | 0.6 | 34 | 12 | 14 | 12 | 14 | 51 | 21 |
| 39 | Divi's Labs | 270 | 0.6 | 20 | 12 | 14 | 19 | 26 | 33 | 23 |
| 40 | Bajaj Holdings | 267 | 0.5 | 27 | 9 | 1 | 11 | 17 | 12 | 6 |
| 41 | Petronet LNG | 266 | 0.5 | 30 | 26 | 0 | 22 | 14 | 17 | 15 |
| 42 | P & G Hygiene | 245 | 0.5 | 27 | 7 | 8 | 46 | 30 | 83 | 34 |
| 43 | Indiabulls Housing | 244 | 0.5 | 29 | 21 | 24 | 25 | 27 | 9 | 5 |
| 44 | Torrent Pharma | 242 | 0.5 | 30 | -2 | 13 | 13 | 35 | 55 | 13 |
| 45 | Berger Paints | 235 | 0.5 | 32 | 15 | 9 | 20 | 22 | 64 | 32 |
| 46 | 3M India | 231 | 0.5 | 47 | 53 | 12 | 26 | 6 | 74 | 92 |
| 47 | Motherson Sumi | 223 | 0.5 | 15 | 16 | 16 | 15 | 26 | 29 | 30 |
| 48 | Page Industries | 205 | 0.4 | 31 | 20 | 19 | 50 | 53 | 72 | 47 |
| 49 | Ashok Leyland | 186 | 0.4 | 31 | L to P | 23 | 23 | -23 | 13 | N.A. |
| 50 | Kansai Nerolac | 183 | 0.4 | 31 | 16 | 10 | 13 | 14 | 56 | 31 |
| Rank | Company | Wealtl | n Created | | GR (2014- | 19, %) | | : (%) | | Ē (x) |
| | | INR bn | Share (%) | Price | PAT | Sales | 2019 | 2014 | 2019 | 2014 |
| | | | | | | | | | | |

Appendix 1: MOSL 100: Biggest Wealth Creators (2014-2019) ... continued

| Rank | Company | Wealtl | n Created | CAG | SR (2014-1 | 9, %) | RoE | (%) | P/E (x) | |
|------|-----------------------|--------|-----------|----------|--------------|-------|------|---------|------------|-------|
| | | INR b | Share (%) | Price | PAT | Sales | 2019 | 2014 | 2019 | 2014 |
| 51 | Cholamandalam Inv. | 180 | 0.4 | 38 | 27 | 17 | 19 | 16 | 19 | 11 |
| 52 | TVS Motor Company | 179 | 0.4 | 37 | 32 | 19 | 22 | 17 | 32 | 26 |
| 53 | Muthoot Finance | 178 | 0.4 | 29 | 22 | 9 | 21 | 18 | 12 | 8 |
| 54 | Indraprastha Gas | 171 | 0.3 | 39 | 17 | 8 | 18 | 20 | 27 | 12 |
| 55 | Rajesh Exports | 170 | 0.3 | 49 | 29 | 43 | 15 | 13 | 15 | 7 |
| 56 | Honeywell Auto | 170 | 0.3 | 49 | 33 | 13 | 21 | 11 | 55 | 31 |
| 57 | Whirlpool India | 164 | 0.3 | 46 | 27 | 15 | 19 | 17 | 47 | 24 |
| 58 | Bharat Electronics | 159 | 0.3 | 22 | 15 | 13 | 20 | 13 | 12 | 10 |
| 59 | Colgate-Palmolive | 155 | 0.3 | 13 | 9 | 5 | 52 | 82 | 45 | 38 |
| 60 | Voltas | 155 | 0.3 | 31 | 18 | 6 | 13 | 13 | 40 | 23 |
| 61 | MRF | 154 | 0.3 | 22 | 4 | 6 | 9 | 22 | 25 | 11 |
| 62 | Indiabulls Ventures | 151 | 0.3 | 78 | 35 | 48 | 7 | 44 | 43 | 4 |
| 63 | LIC Housing Finance | 150 | 0.3 | 18 | 13 | 13 | 15 | 17 | 11 | 9 |
| 64 | Info Edge (India) | 150 | 0.3 | 24 | -1 -1 | 15 | 3 | 13 | 275 | 80 |
| 65 | Gillette India | 150 | 0.3 | 27 | 38 | 2 | 32 | 8 | 85 | 125 |
| 66 | GRUH Finance | 149 | 0.3 | 30 | 20 | 19 | 24 | 8 29 | 45 | 30 |
| 67 | Balkrishna Industries | 149 | 0.3 | 33 | 10 | 7 | 16 | 25 | 26 | 10 |
| | | | | | | | | | | |
| 68 | Edelweiss Finance | 144 | 0.3 | 47 | 35 | 34 | 13 | 8 | 18 | 10 |
| 69 | L&T Finance Holdings | 140 | 0.3 | 16 | 30 | 20 | 17 | 10 | 14 | 21 |
| 70 | Bharat Forge | 140 | 0.3 | 19 | 18 | 9 | 19 | 17 | 23 | 22 |
| 71 | Godrej Properties | 129 | 0.3 | 31 | 12 | 19 | 9 | 7 | 87 | 35 |
| 72 | Bharat Financial | 124 | 0.3 | 41 | 70 | 41 | 23 | 15 | 16 | 32 |
| 73 | The Ramco Cement | 124 | 0.3 | 28 | 35 | 7 | 11 | 5 | 34 | 45 |
| 74 | Aarti Industries | 121 | 0.2 | 67 | 26 | 12 | 19 | 18 | 28 | 7 |
| 75 | Jubilant Foodworks | 121 | 0.2 | 22 | 22 | 15 | 26 | 22 | 59 | 59 |
| 76 | Mphasis | 120 | 0.2 | 20 | 28 | 24 | 20 | 6 | 17 | 28 |
| 77 | Indian Hotels | 119 | 0.2 | 18 | L to P | 2 | 6 | -5 | 66 | N.A. |
| 78 | Abbott India | 118 | 0.2 | 33 | 18 | 10 | 22 | 24 | 35 | 20 |
| 79 | SRF | 118 | 0.2 | 46 | 32 | 14 | 16 | 8 | 22 | 13 |
| 80 | City Union Bank | 117 | 0.2 | 36 | 14 | 8 | 14 | 17 | 22 | 8 |
| 81 | AIA Engineering | 116 | 0.2 | 26 | 7 | 8 | 14 | 20 | 35 | 15 |
| 82 | IIFL Finance | 113 | 0.2 | 41 | 17 | 12 | 17 | 13 | 22 | 8 |
| 83 | Astral Poly | 110 | 0.2 | 38 | 20 | 18 | 15 | 25 | 71 | 33 |
| 84 | Bata India | 108 | 0.2 | 20 | 11 | 7 | 19 | 25 | 55 | 37 |
| 85 | Sundram Fasteners | 106 | 0.2 | 55 | 31 | 11 | 25 | 15 | 26 | 11 |
| 86 | Bayer Crop Science | 105 | 0.2 | 24 | -4 | -4 | 13 | 17 | 63 | 19 |
| 87 | P I Industries | 104 | 0.2 | 30 | 16 | 10 | 18 | 28 | 35 | 20 |
| 88 | Oberoi Realty | 103 | 0.2 | 19 | 21 | 26 | 10 | 7 | 24 | 23 |
| 89 | Mindtree | 101 | 0.2 | 23 | 11 | 18 | 23 | 27 | 21 | 12 |
| 90 | NBCC | 100 | 0.2 | 25 45 | 8 | 20 | 25 | 23 | 32 | 7 |
| 91 | Sundaram Finance | 100 | 0.2 | 21 | 7 | -2 | 13 | 19 | 21 | 12 |
| 92 | Atul | 93 | 0.2 | 52 | 14 | 12 | 16 | 26 | 25 | 6 |
| | | | | | | | | | | |
| 93 | WABCO India | 88 | 0.2 | 27 | 18 D to 1 | 21 | 15 | 15 | 48 N. A | 33 |
| 94 | Tata Comm | 88 | 0.2 | 15 | P to L | -1 | 45 | 10 | N.A. | 112 |
| 95 | GFL Finance Finance | 86 | 0.2 | 28 | 50 | 11 | 22 | 5 | 9 | 20 |
| 96 | Manappuram Finance | 86 | 0.2 | 42 | 33 | 14 | 20 | 9 | 11 | 8 |
| 97 | Trent | 85 | 0.2 | 29 | L to P | 3 | 6 | -1 | 121 | N.A. |
| 98 | Bombay Burmah | 84 | 0.2 | 68 | 36 | 9 | 19 | 15 | 10 | 4 |
| 99 | Escorts | 83 | 0.2 | 47 | 14 | -1 | 17 | 13 | 21 | 6 |
| 100 | Exide Industries | 83 | 0.2 | 13 | 8 | 12 | 13 | 16 | 24 | 19 |
| | TOTAL / AVG | 49,048 | 100.0 | 23 | 15 | 8 | 15 | 16 | 25 | 18 |
| Rank | Company | Wealtl | h Created | CAG | GR (2014-1 | | RoE | (%) | P/I | E (x) |
| | | INR bn | Share (%) | Price | PAT | Sales | 2019 | 2014 | 2019 | 2014 |

Note: L to P stands for Loss to Profit; P to L stands for Profit to Loss

Appendix 2: MOSL 100: Fastest Wealth Creators (2014-2019)

| Rank | Company | 2014-1 | 9 Price | CAGR 14 | 1-19 (%) | Wealt | h Created | Rol | (%) | p/i | E (x) |
|------|----------------------|----------|-----------|---------|----------|--------|-----------|------|------|------|-------|
| Nank | Company | CAGR (%) | Times (x) | PAT | Sales | INR b | Share (%) | 2019 | 2014 | 2019 | 2014 |
| 1 | Indiabulls Ventures | 78 | 18 | 35 | 48 | 151 | 0.3 | 7 | 44 | 43 | 4 |
| 2 | Bajaj Finance | 76 | 17 | 41 | 36 | 1,594 | 3.3 | 20 | 18 | 44 | 12 |
| 3 | Bombay Burmah | 68 | 13 | 36 | 9 | 84 | 0.2 | 19 | 15 | 10 | 4 |
| 4 | Aarti Industrie | 67 | 13 | 26 | 12 | 121 | 0.2 | 19 | 18 | 28 | 7 |
| 5 | Sundram Fasteners | 55 | 9 | 31 | 11 | 106 | 0.2 | 25 | 15 | 26 | 11 |
| 6 | Bajaj Finserv | 55 | 9 | 16 | 48 | 994 | 2.0 | 14 | 17 | 35 | 8 |
| 7 | Atul | 52 | 8 | 14 | 12 | 93 | 0.2 | 16 | 26 | 25 | 6 |
| 8 | Rajesh Exports | 49 | 7 | 29 | 43 | 170 | 0.3 | 15 | 13 | 15 | 7 |
| 9 | Honeywell Auto | 49 | 7 | 33 | 13 | 170 | 0.3 | 21 | 11 | 55 | 31 |
| 10 | Britannia Industries | 49 | 7 | 25 | 10 | 639 | 1.3 | 27 | 48 | 64 | 26 |
| 11 | Escorts | 47 | 7 | 14 | -1 | 83 | 0.2 | 17 | 13 | 21 | 6 |
| 12 | Edelweiss Finance | 47 | 7 | 35 | 34 | 144 | 0.3 | 13 | 8 | 18 | 10 |
| 13 | 3M India | 47 | 7 | 53 | 12 | 231 | 0.5 | 26 | 6 | 74 | 92 |
| 14 | SRF | 46 | 7 | 32 | 14 | 118 | 0.2 | 16 | 8 | 22 | 13 |
| 15 | Whirlpool India | 46 | 7 | 27 | 15 | 164 | 0.3 | 19 | 17 | 47 | 24 |
| 16 | NBCC | 45 | 6 | 8 | 20 | 100 | 0.2 | 25 | 23 | 32 | 7 |
| 17 | Manappuram Fin. | 42 | 6 | 33 | 14 | 86 | 0.2 | 20 | 9 | 11 | 8 |
| 18 | IIFL Finance | 41 | 6 | 17 | 12 | 113 | 0.2 | 17 | 13 | 22 | 8 |
| 19 | Bharat Financial | 41 | 6 | 70 | 41 | 124 | 0.3 | 23 | 15 | 16 | 32 |
| 20 | UPL | 39 | 5 | 12 | 15 | 357 | 0.7 | 12 | 19 | 27 | 8 |
| 21 | Indraprastha Gas | 39 | 5 | 17 | 8 | 171 | 0.3 | 18 | 20 | 27 | 12 |
| 22 | Piramal Enterprises | 38 | 5 | L to P | 24 | 385 | 0.8 | 6 | -5 | 29 | N.A. |
| 23 | Chola. Inv. & Fin. | 38 | 5 | 27 | 17 | 180 | 0.4 | 19 | 16 | 19 | 11 |
| 24 | Astral Poly | 38 | 5 | 20 | 18 | 110 | 0.2 | 15 | 25 | 71 | 33 |
| 25 | TVS Motor | 37 | 5 | 32 | 19 | 179 | 0.4 | 22 | 17 | 32 | 26 |
| 26 | City Union Bank | 36 | 5 | 14 | 8 | 117 | 0.2 | 14 | 17 | 22 | 8 |
| 27 | Titan Company | 34 | 4 | 14 | 13 | 777 | 1.6 | 23 | 29 | 72 | 32 |
| 28 | Biocon | 34 | 4 | 12 | 14 | 281 | 0.6 | 12 | 14 | 51 | 21 |
| 29 | Abbott India | 33 | 4 | 18 | 10 | 118 | 0.2 | 22 | 24 | 35 | 20 |
| 30 | Balkrishna Inds | 33 | 4 | 10 | 7 | 146 | 0.3 | 16 | 25 | 26 | 10 |
| 31 | Havells India | 33 | 4 | 12 | 3 | 366 | 0.7 | 19 | 27 | 61 | 26 |
| 32 | HPCL | 33 | 4 | 43 | 3 | 327 | 0.7 | 22 | 8 | 6 | 9 |
| 33 | Pidilite Industries | 32 | 4 | 16 | 11 | 480 | 1.0 | 23 | 23 | 67 | 35 |
| 34 | Berger Paints | 32 | 4 | 15 | 9 | 235 | 0.5 | 20 | 22 | 64 | 32 |
| 35 | Voltas | 31 | 4 | 18 | 6 | 155 | 0.3 | 13 | 13 | 40 | 23 |
| 36 | Kansai Nerolac | 31 | 4 | 16 | 10 | 183 | 0.4 | 13 | 14 | 56 | 31 |
| 37 | Ashok Leyland | 31 | 4 | L to P | 23 | 186 | 0.4 | 23 | -23 | 13 | N.A. |
| 38 | Page Industries | 31 | 4 | 20 | 19 | 205 | 0.4 | 50 | 53 | 72 | 47 |
| 39 | Godrej Properties | 31 | 4 | 12 | 19 | 129 | 0.3 | 9 | 7 | 87 | 35 |
| 40 | GRUH Finance | 30 | 4 | 20 | 19 | 149 | 0.3 | 24 | 29 | 45 | 30 |
| 41 | Torrent Pharma | 30 | 4 | -2 | 13 | 242 | 0.5 | 13 | 35 | 55 | 13 |
| 42 | P I Industries | 30 | 4 | 16 | 10 | 104 | 0.2 | 18 | 28 | 35 | 20 |
| 43 | Petronet LNG | 30 | 4 | 26 | 0 | 266 | 0.5 | 22 | 14 | 17 | 15 |
| 44 | Indiabulls Housing | 29 | 4 | 21 | 24 | 244 | 0.5 | 25 | 27 | 9 | 5 |
| 45 | Muthoot Finance | 29 | 4 | 22 | 9 | 178 | 0.4 | 21 | 18 | 12 | 8 |
| 46 | IndusInd Bank | 29 | 4 | 19 | 22 | 756 | 1.5 | 13 | 16 | 33 | 19 |
| 47 | Trent | 29 | 4 | L to P | 3 | 85 | 0.2 | 6 | -1 | 121 | N.A. |
| 48 | GFL | 28 | 3 | 50 | 11 | 86 | 0.2 | 22 | 5 | 9 | 20 |
| 49 | Eicher Motors | 28 | 3 | 43 | 8 | 398 | 0.8 | 25 | 18 | 25 | 43 |
| 50 | Kotak Mahindra | 28 | 3 | 24 | 20 | 1,795 | 3.7 | 12 | 13 | 35 | 24 |
| Rank | Company | 2014-1 | 9 Price | CAGR 14 | 4-19 (%) | Wealt | h Created | Rol | (%) | P/E | E (x) |
| | | CAGR (%) | Times (x) | PAT | Sales | INR bn | Share (%) | 2019 | 2014 | 2019 | 2014 |
| | | | | | | | | | | | |

Appendix 2: MOSL 100: Fastest Wealth Creators (2014-2019) ... continued

| Rank | Company | 2014-1 | .9 Price | CAGR (1 | 4-19, %) | Wealt | h Created | Rol | E (%) | P/E (x) | |
|----------|-------------------------|----------|-----------|----------|----------|--------------|-----------|----------|----------|----------|---------|
| | | CAGR (%) | Times (x) | PAT | Sales | INR bn | Share (%) | 2019 | 2014 | 2019 | 2014 |
| 51 | The Ramco Cement | 28 | 3 | 35 | 7 | 124 | 0.3 | 11 | 5 | 34 | 45 |
| 52 | Maruti Suzuki | 28 | 3 | 19 | 14 | 1,420 | 2.9 | 13 | 12 | 34 | 24 |
| 53 | Bajaj Holdings | 27 | 3 | 9 | 1 | 267 | 0.5 | 11 | 17 | 12 | 6 |
| 54 | P&G Hygiene | 27 | 3 | 7 | 8 | 245 | 0.5 | 46 | 30 | 83 | 34 |
| 55 | Gillette India | 27 | 3 | 38 | 2 | 150 | 0.3 | 32 | 8 | 85 | 125 |
| 56 | Yes Bank | 27 | 3 | 1 | 24 | 405 | 0.8 | 6 | 23 | 37 | 9 |
| 57 | Shree Cement | 27 | 3 | 7 | 16 | 453 | 0.9 | 12 | 17 | 57 | 24 |
| 58 | Marico | 27 | 3 | 18 | 11 | 310 | 0.6 | 37 | 35 | 40 | 28 |
| 59 | WABCO India | 27 | 3 | 18 | 21 | 88 | 0.2 | 15 | 15 | 48 | 33 |
| 60 | AIA Engineering | 26 | 3 | 7 | 8 | 116 | 0.2 | 14 | 20 | 35 | 15 |
| 61 | HDFC Bank | 25 | 3 | 21 | 20 | 4,085 | 8.3 | 15 | 20 | 28 | 21 |
| 62 | Aurobindo Pharma | 25 | 3 | 16 | 19 | 312 | 0.6 | 17 | 31 | 19 | 13 |
| 63 | Info Edge (India) | 24 | 3 | -1 | 15 | 150 | 0.3 | 3 | 13 | 275 | 80 |
| 64 | Reliance Industries | 24 | 3 | 14 | 5 | 5,636 | 11.5 | 10 | 10 | 22 | 15 |
| 65 | Bayer Crop Science | 24 | 3 | -4 | -4 | 105 | 0.2 | 13 | 17 | 63 | 19 |
| 66 | Mindtree | 23 | 3 | 11 | 18 | 101 | 0.2 | 23 | 27 | 21 | 12 |
| 67 | Hind. Unilever | 23 | 3 | 12 | 6 | 2,391 | 4.9 | 79 | 102 | 60 | 36 |
| 68 | JSW Steel | 23 | 3 | 80 | 11 | 458 | 0.9 | 22 | 2 | 9 | 63 |
| 69 | Asian Paints | 22 | 3 | 12 | 8 | 907 | 1.8 | 23 | 30 | 67 | 43 |
| 70 | Jubilant Foodworks | 22 | 3 | 22 | 15 | 121 | 0.2 | 26 | 22 | 59 | 59 |
| 71 | Bharat Electronics | 22 | 3 | 15 | 13 | 159 | 0.3 | 20 | 13 | 12 | 10 |
| 72 | MRF | 22 | 3 | 4 | 6 | 154 | 0.3 | 9 | 22 | 25 | 11 |
| 73 | Axis Bank | 22 | 3 | -4 | 13 | 1,209 | 2.5 | 7 | 16 | 40 | 11 |
| 74 | Sundaram Finance | 21 | 3 | 7 | -2 | 100 | 0.2 | 13 | 19 | 21 | 12 |
| 75 | BPCL | 21 | 3 | 15 | 2 | 522 | 1.1 | 20 | 20 | 11 | 8 |
| 76 | Divi's Labs. | 20 | 2 | 12 | 14 | 270 | 0.6 | 19 | 26 | 33 | 23 |
| 77 | Bata India | 20 | 2 | 11 | 7 | 108 | 0.2 | 19 | 25 | 55 | 37 |
| 78 | Mphasis | 20 | 2 | 28 | 24 | 120 | 0.2 | 20 | 6 | 17 | 28 |
| 79 | Oberoi Realty | 19 | 2 | 21 | 26 | 103 | 0.2 | 10 | 7 | 24 | 23 |
| 80 | Bharat Forge | 19 | 2 | 18 | 9 | 140 | 0.3 | 19 | 17 | 23 | 22 |
| 81 | Godrej Consumer | 19 | 2 | 23 | 6 | 413 | 0.8 | 29 | 20 | 33 | 39 |
| 82 | IOC | 18 | 2 | 24 | 1 | 878 | 1.8 | 15 | 9 | 9 | 11 |
| 83 | Indian Hotels | 18 | 2 | L to P | 2 | 119 | 0.2 | 6 | <u> </u> | 66 | N.A. |
| 84 | Dabur India | 18 | 2 | 11 | 4 | 405 | 0.2 | 27 | 34 | 48 | 35 |
| 85 | LIC Housing Finance | 18 | | 13 | 13 | 150 | 0.3 | 15 | 17 | 11 | |
| 86 | HDFC | 17 | 2 | 15 | 19 | | 3.7 | 15 | 21 | 21 | 9 17 |
| 87 | Nestle India | 17 | 2 | 13 8 | 4 | 1,800 577 | 1.2 | 44 | 47 | 66 | 44 |
| 88 | | | | 5 | 9 | | | | | | |
| 89 | Hindustan Zinc | 17 | 2 | | | 626 | 1.3 | 23 | 16 | 15 | 9 |
| 90 | L&T Finance Adani Ports | 16 15 | 2 | 30 19 | 20 18 | 140 394 | 0.3 | 17 16 | 10 19 | 14 20 | 21 |
| 91 | | | | | | | | | | | |
| | Tata Comm | 15 | 2 | P to L | -1 | 88 | 0.2 | 45 | 10 | N.A. | 112 |
| 92 93 | Motherson Sumi | 15 | 2 | 16 | 16 | 223 | 0.5 | 15 | 26 | 29 | 30 |
| | Power Grid Corpn | 14 | 2 | 22 | 17 | 487 | 1.0 | 21 | 13 | 8 | 12 |
| 94 | TCS Colgato Palmolivo | 13 | 2 | 11 | 12 | 3,655 | 7.5 | 35 | 39 | 24 | 22 |
| 95 | Colgate-Palmolive | 13 | 2 | 9 | 5 | 155 | 0.3 | 52 | 82 | 45 | 38 |
| 96 | UltraTech Cement | 13 | 2 | 3 | 12 | 497 | 1.0 | 8 | 12 | 47 | 30 |
| 97 | Infosys | 13 | 2 | 7 | 11 | 1,497 | 3.1 | 23 | 24 | 21 | 18 |
| 98 | Exide Industries | 13 | 2 | 8 | 12 | 83 | 0.2 | 13 | 16 | 24 | 19 |
| 99 | ICICI Bank | 12 | 2 | -17 | 8 | 1,117 | 2.3 | 4 | 14 | 60 | 13 |
| 100 | Tech Mahindra | 12 | 2 | 8 | 13 | 342 | 0.7 | 21 | 32 | 18 | 14 |
| D- 1 | TOTAL / AVG | 23 | O Dui | 15 | 8 | 49,048 | 100.0 | 15 | 16 | 25 | 16 |
| капк | Company | | 9 Price | CAGR (1 | | | h Created | | (%) | | (x) |
| | | CAGR (%) | Times (x) | PAT | Sales | INR b | Share (%) | 2019 | 2014 | 2019 | 2014 |

Note: L to P stands for Loss to Profit; P to L stands for Profit to Loss

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Appendix 3: MOSL 100 – Alphabetical order

| | WC I | Rank | 2014- | 19 Wealth | Created | | WC | Rank | 2014-: | 19 Wealth | Created |
|-----------------------|---------|---------|-------|-----------|-----------|---------------------|---------|---------|--------|-----------|-----------|
| Company | Riggest | Fastest | INR | Price | Price | Company | Riggest | Fastest | INR | Price | Price |
| Company | Diggest | Tastest | bn | CAGR % | Mult. (x) | Соптратту | Diggest | Tastest | bn | CAGR % | Mult. (x) |
| 3M India | 46 | 13 | 231 | 47 | 6.8 | Indiabulls Ventures | 62 | 1 | 151 | 78 | 18.0 |
| Aarti Industries | 74 | 4 | 121 | 67 | 12.8 | Indian Hotels | 77 | 83 | 119 | 18 | 2.3 |
| Abbott India | 78 | 29 | 118 | 33 | 4.2 | Indraprastha Gas | 54 | 21 | 171 | 39 | 5.1 |
| Adani Ports | 30 | 90 | 394 | 15 | 2.0 | IndusInd Bank | 16 | 46 | 756 | 29 | 3.6 |
| AIA Engineering | 81 | 60 | 116 | 26 | 3.2 | Info Edge (India) | 64 | 63 | 150 | 24 | 3.0 |
| Ashok Leyland | 49 | 37 | 186 | 31 | 3.9 | Infosys | 8 | 97 | 1,497 | 13 | 1.8 |
| Asian Paints | 13 | 69 | 907 | 22 | 2.7 | JSW Steel | 24 | 68 | 458 | 23 | 2.8 |
| Astral Poly | 83 | 24 | 110 | 38 | 5.0 | Jubilant Foodworks | 75 | 70 | 121 | 22 | 2.7 |
| Atul | 92 | 7 | 93 | 52 | 8.2 | Kansai Nerolac | 50 | 36 | 183 | 31 | 3.9 |
| Aurobindo Pharma | 36 | 62 | 312 | 25 | 3.1 | Kotak Mahindra | 6 | 50 | 1,795 | 28 | 3.4 |
| Axis Bank | 10 | 73 | 1,209 | 22 | 2.7 | L&T Finance | 69 | 89 | 140 | 16 | 2.1 |
| BPCL | 20 | 75 | 522 | 21 | 2.6 | LIC Housing Finance | 63 | 85 | 150 | 18 | 2.3 |
| Bajaj Finance | 7 | 2 | 1,594 | 76 | 16.9 | Manappuram Fin. | 96 | 17 | 86 | 42 | 5.8 |
| Bajaj Finserv | 12 | 6 | 994 | 55 | 8.9 | Marico | 37 | 58 | 310 | 27 | 3.3 |
| Bajaj Holdings | 40 | 53 | 267 | 27 | 3.4 | Maruti Suzuki | 9 | 52 | 1,420 | 28 | 3.4 |
| Balkrishna Industries | 67 | 30 | 146 | 33 | 4.2 | Mindtree | 89 | 66 | 101 | 23 | 2.9 |
| Bata India | 84 | 77 | 108 | 20 | 2.5 | Motherson Sumi | 47 | 92 | 223 | 15 | 2.0 |
| Bayer Crop Science | 86 | 65 | 105 | 24 | 2.9 | Mphasis | 76 | 78 | 120 | 20 | 2.4 |
| Berger Paints | 45 | 34 | 235 | 32 | 3.9 | MRF | 61 | 72 | 154 | 22 | 2.7 |
| Bharat Electronics | 58 | 71 | 159 | 22 | 2.7 | Muthoot Finance | 53 | 45 | 178 | 29 | 3.6 |
| Bharat Financial | 72 | 19 | 124 | 41 | 5.5 | NBCC | 90 | 16 | 100 | 45 | 6.3 |
| Bharat Forge | 70 | 80 | 140 | 19 | 2.4 | Nestle India | 19 | 87 | 577 | 17 | 2.2 |
| Biocon | 38 | 28 | 281 | 34 | 4.3 | Oberoi Realty | 88 | 79 | 103 | 19 | 2.4 |
| Bombay Burmah | 98 | 3 | 84 | 68 | 13.4 | P&G Hygiene | 42 | 54 | 245 | 27 | 3.4 |
| Britannia Industries | 17 | 10 | 639 | 49 | 7.3 | P I Industries | 87 | 42 | 104 | 30 | 3.7 |
| Chola. Inv.& Fin. | 51 | 23 | 180 | 38 | 5.0 | Page Industries | 48 | 38 | 205 | 31 | 3.8 |
| City Union Bank | 80 | 26 | 117 | 36 | 4.6 | Petronet LNG | 41 | 43 | 266 | 30 | 3.7 |
| Colgate-Palmolive | 59 | 95 | 155 | 13 | 1.8 | Pidilite Industries | 23 | 33 | 480 | 32 | 4.1 |
| Dabur India | 28 | 84 | 405 | 18 | 2.3 | Piramal Enterprises | 31 | 22 | 385 | 38 | 5.1 |
| Divi's Labs. | 39 | 76 | 270 | 20 | 2.5 | Power Grid Corpn | 22 | 93 | 487 | 14 | 1.9 |
| Edelweiss Finance | 68 | 12 | 144 | 47 | 6.9 | Rajesh Exports | 55 | 8 | 170 | 49 | 7.5 |
| Eicher Motors | 29 | 49 | 398 | 28 | 3.4 | Reliance Industries | 1 | 64 | 5,636 | 24 | 2.9 |
| Escorts | 99 | 11 | 83 | 47 | 6.9 | Shree Cement | 25 | 57 | 453 | 27 | 3.3 |
| Exide Industries | 100 | 98 | 83 | 13 | 1.8 | SRF | 79 | 14 | 118 | 46 | 6.7 |
| GFL | 95 | 48 | 86 | 28 | 3.5 | Sundaram Finance | 91 | 74 | 100 | 21 | 2.6 |
| Gillette India | 65 | 55 | 150 | 27 | 3.3 | Sundram Fasteners | 85 | 5 | 106 | 55 | 9.0 |
| Godrej Consumer | 26 | 81 | 413 | 19 | 2.4 | Tata Comm | 94 | 91 | 88 | 15 | 2.0 |
| Godrej Consumer | 71 | 39 | 129 | 31 | 3.8 | TCS | 3 | 94 | | 13 | 1.9 |
| | | | | | | | | | 3,655 | | |
| GRUH Finance | 66 | 40 | 149 | 30 | 3.8 | Tech Mahindra | 34 | 100 | 342 | 12 | 1.7 |
| HDFC | 5 | 86 | 1,800 | 17 | 2.2 | The Ramco Cement | 73 | 51 | 124 | 28 | 3.4 |
| HPCL | 35 | 32 | 327 | 33 | 4.1 | Titan Company | 15 | 27 | 777 | 34 | 4.3 |
| Havells India | 32 | 31 | 366 | 33 | 4.1 | Torrent Pharma | 44 | 41 | 242 | 30 | 3.7 |
| HDFC Bank | 2 | 61 | 4,085 | 25 | 3.1 | Trent | 97 | 47 | 85 | 29 | 3.5 |
| Hindustan Unilever | 4 | 67 | 2,391 | 23 | 2.8 | TVS Motor | 52 | 25 | 179 | 37 | 4.9 |
| Hindustan Zinc | 18 | 88 | 626 | 17 | 2.2 | UltraTech Cement | 21 | 96 | 497 | 13 | 1.8 |
| Honeywell Auto | 56 | 9 | 170 | 49 | 7.4 | UPL | 33 | 20 | 357 | 39 | 5.2 |
| IOC | 14 | 82 | 878 | 18 | 2.3 | Voltas | 60 | 35 | 155 | 31 | 3.9 |
| ICICI Bank | 11 | 99 | 1,117 | 12 | 1.8 | WABCO India | 93 | 59 | 88 | 27 | 3.3 |
| IIFL Finance | 82 | 18 | 113 | 41 | 5.6 | Whirlpool India | 57 | 15 | 164 | 46 | 6.6 |
| Indiabulls Housing | 43 | 44 | 244 | 29 | 3.6 | Yes Bank | 27 | 56 | 405 | 27 | 3.3 |

NOTES

| Explanation of Investment Rating | | | | | | | |
|----------------------------------|--|--|--|--|--|--|--|
| Investment Rating | Expected return (over 12-month) | | | | | | |
| BUY | >=15% | | | | | | |
| SELL | <-10% | | | | | | |
| NEUTRAL | > - 10 % to 15% | | | | | | |
| UNDER REVIEW | Rating may undergo a change | | | | | | |
| NOT RATED | We have forward looking estimates for the stock but we refrain from assigning recommendation | | | | | | |

1n case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall within following 30 days take appropriate measures to make the recommend consistent with the investment rating legend.

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