

A Study on Wealth Creation (1997-2002)

The Seventh Annual Study

Top-10 Wealth Creators (1997-2002)

The fastest			
RANK	COMPANY	ADJUSTED MKT. CAP. CAGR (%)	APPRE- CIATION (X)
1	Wipro	133	68
2	Satyam Computer Services	122	54
3	e-Serve International	110	41
4	Infosys Technologies	97	30
5	Moser Baer (India)	83	21
6	Zee Telefilms	80	19
7	Sri Vishnu Cement	78	18
8	Aftek Infosys	75	16
9	CMC	73	16
10	Amtek Auto	70	14

The biggest			
RANK	COMPANY	WEALTH CREATED (RS CR)	APPRE- CIATION (X)
1	Wipro	38,322	68
2	Hindustan Lever	27,111	2
3	Infosys Technologies	23,690	30
4	Oil & Natural Gas Corpn	9,568	1
5	Reliance Industries	8,401	2
6	ITC	8,294	2
7	Satyam Computer Services	7,523	54
9	Ranbaxy Laboratories	6,797	3
8	Dr Reddy's Laboratories	6,597	12
10	Hero Honda Motors	6,065	11

Looking ahead ...

"At all times, in all markets in all parts of the world, the tiniest change in interest rates changes the value of every financial asset".

- *The fall in interest rates on long-term bonds will have a deep impact on the valuations of other financial assets, particularly stocks*
- *Corporate earnings are likely to be positively impacted by the sustained drop in interest rates - not only through own interest cost reduction but also through suppliers' interest cost reduction*
- *Value is, however, not immediately reflected in market prices as "Investors are habitually guided by recent experiences and extrapolate them into the future"*
- *If viewed as a disguised bond, the BSE Sensex is a far superior compounding instrument than the 10-year Government bond*

Contents

Objective, Concept & Methodology	3
The Wealth Creator Group vs BSE Sensex	4
Wealth Creators ~ Business Analysis	5-8
Wealth Creation Process of Growing Companies	9
Wealth Creators ~ New Economy vs Old Economy	10-11
Importance of Interest in Wealth Creation	12
The American Experience	13-16
The Indian Corollary	17-23
Appendix I: 'MOST Inquire 85' ~ Wealth Creators	24-25
Appendix II: 'MOST Inquire 85' ~ Wealth Creators (Rankings)	26-27

Objective, Concept & Methodology

Objective

The foundation of Wealth Creation is in buying businesses at a price substantially lower than their intrinsic value. The lower the market value than the intrinsic value, the higher is the margin of safety. In this year's study, we continue our endeavour to cull out the characteristics of businesses, which 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 How to Value a Business.

Concept

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. Wealth Creation is achieved by the rational actions of a company in a sustained manner.

Methodology

For the purposes of our study*, we have identified companies that have the distinction of having added at least Rs100crore to their market capitalization after adjusting for dilution during 1997-2002. Only 85 companies fulfill this criterion. We have termed the group of Wealth Creators as the 'MOST-Inquire 85'. The Wealth Creators have been listed in Appendix I and II. Ranks have been accorded on the basis of Speed of Wealth Creation, that is, the compounded growth in Wealth Created during the period under study.

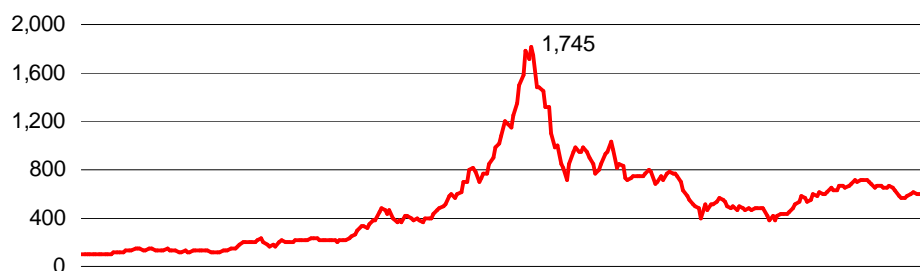
* *Capitaline O & Trends databases have been used for this study*

The Wealth Creator Group vs BSE Sensex

This study pertains to the period from April 1997 to March 2002. During this period, the BSE Sensex rose at a modest CAGR of 0.64% while the Wealth Creators' Index appreciated at a CAGR of 46.4%. The chart below depicts the relative performance of the 'MOST-Inquire 85' vs the BSE Sensex during the period under review. Despite having fallen by 61% from the peak of 1,745 in March 2000, the Wealth Creators' Index managed to outperform the Sensex by 477% during the study period.

WEALTH CREATORS' INDEX (31.3.97 TO 31.3.02)

Performance in absolute terms



Performance relative to Sensex



GROWTH: SENSEX vs WEALTH CREATORS

	MAR-97	MAR-98	MAR-99	MAR-00	MAR-01	MAR-02
BSE Sensex	3,361	3,893	3,740	5,001	3,604	3,469
YoY Growth (%)	(0.2)	15.8	(3.9)	33.7	(27.9)	(3.7)
Wealth Creators' Index	100	153	440	1,454	505	672
YoY Growth (%)	-	52.6	188.4	230.4	(65.2)	32.9
5-Year CAGR (%) Sensex						0.64
5-Year CAGR (%) Wealth Creators						46.4

The market capitalization of 'MOST-Inquire 85' increased by Rs2lakh crore during the study period while the rest of the market was in a destructive mode with Rs1.2lakh crore getting eroded in the study period. The net wealth created was Rs0.8lakh crore.

Wealth Creators ~ Business Analysis

Nature of business

The trio - IT, FMCG and Pharmaceuticals -continues to dominate the list of Wealth Creators. Combined, these sectors have contributed 73% to the Wealth Created in the 1997-2002 study compared to 70% in the 1996-2001 study. The share of the Banking sector to the total Wealth Created has increased from 3.4% in last year's study to 5.2% in the current study. The fastest Wealth Creator has been the IT sector, comprising of 16 companies, creating Wealth at 99% CAGR during the study period.

WEALTH CREATORS: CLASSIFICATION BY INDUSTRY

(RS CR)

INDUSTRY	NET WEALTH CREATED	SPEED CAGR (%) 1997-02	NO OF COS.	CONTR. TO WEALTH CREATED (%)	ROCE 2002 (%)	ROCE 1997 (%)	CAGR (%) 1997-02	
							NP	SALES
IT	76,381	99	16	38.0	32.2	22.7	63.1	28.0
FMCG	43,800	19	11	21.8	45.4	34.0	28.2	10.6
Pharma	25,340	32	17	12.6	28.0	24.0	27.5	21.0
Petrochemicals	14,843	16	4	7.2	16.8	18.4	15.6	32.9
Oil & Gas	11,830	7	3	5.9	62.0	20.7	25.4	15.4
Banks & Finance	10,488	27	5	5.2	16.0*	14.9*	20.8	17.7
Automobiles	6,065	62	1	2.9	87.8	32.0	55.8	42.2
Media	3,243	111	1	1.6	24.0	32.5	27.5	35.4
Cement	1,943	10	3	0.9	12.5	18.2	7.6	6.8
Chemicals	1,572	18	5	0.8	15.2	15.1	8.6	14.5
Metals	1,278	14	4	0.6	18.0	17.5	17.5	19.3
Diversified	912	13	3	0.4	19.8	25.3	36.7	4.2
Shipping	905	14	1	0.4	16.6	14.5	0.7	4.2
Telecom	588	20	3	0.3	16.8	11.6	nm	14.6
Power	289	2	1	0.1	11.2	12.2	5.6	8.0
Others	1,643	35	7	1	20	18	25.7	17.4
Total	201,120	38.0	85	100	25.1	19.6	24.2	22.1

* RoE instead of RoCE

Management: MNC vs Indian

The percentage of MNCs figuring as Wealth Creators declined from a high of 50% in the 1993-1998 study to a low of 19% in the current study. The homegrown IT and Pharmaceutical companies have displaced the MNCs as a major Wealth Creating class. With the recent wave of delisting by several MNC subsidiaries operating in India, the question is, "Will MNC stocks attract investor fancy?"

WEALTH CREATORS: MNCs vs INDIAN COMPANIES

WEALTH CREATION STUDY	NO OF COMPANIES			% WEALTH CREATED	
	MNCs	TOTAL	MNCs % OF TOTAL	MNCs	OTHERS
1997-02	16	85	18.8	22.8	77.2
1996-01	19	71	26.8	29.7	70.3
1995-00	21	100	21.0	14.8	85.2
1994-99	43	100	43.0	50.2	49.8
1993-98	50	100	50.0	47.3	52.7
1992-97	19	45	42.2	38.4	61.6
1991-96	38	100	38.0	35.7	64.3

Speed vs size

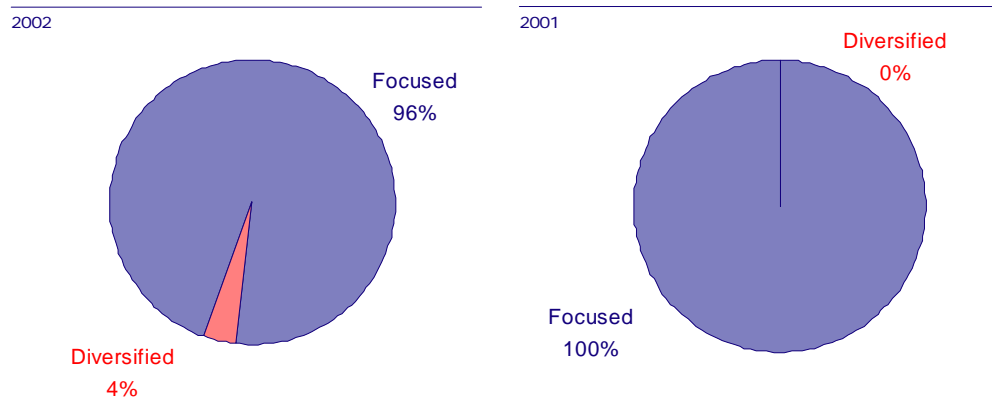
The speed of Wealth Creation is correlated to the size of market capitalization. Thus, if one wants speed in Wealth Creation, then it is imperative to buy companies with modest market capitalizations and whose businesses have the potential to create value for shareholders on a consistent basis. The mean size of the Wealth Creators in 1997 and the pace at which Wealth has been Created are Rs1,403crore and 38% CAGR, respectively. Wipro, the biggest and fastest Wealth Creator had Rs573crore as its market capitalization. Bigger size requires bigger incremental investment opportunities, which are few and difficult to harness.

WEALTH CREATORS: CLASSIFICATION BY MARKET CAPITALIZATION			(RS CR)
MARKET CAPITALIZATION	MEAN SIZE	NO. OF COS	MEAN SPEED (%)
>= 1000	6,339	16	15.3
>= 500 < 1000	688	14	38.1
>= 250 < 500	342	13	28.1
< 250	91	42	48.9
All Companies	1,403	85	38.0

Business activity

A common feature across all the Wealth Creation Studies, including the current one, is that companies, which have consistently Created Wealth for their shareholders, have adopted an extremely focused business policy. The current study also displays a similar trend, as 96% of the Wealth Created was by companies that adopted a focused business approach. In last year's study, not a single diversified company succeeded in creating wealth for its shareholders. Total focus may not be a sufficient condition but is a necessary one.

WEALTH CREATORS: CLASSIFICATION BY BUSINESS ACTIVITY

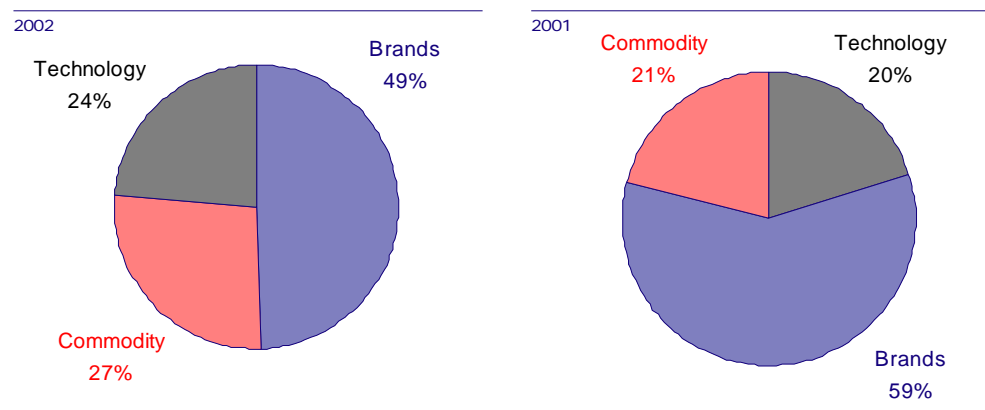


Product attribute

All the current and past successful Wealth Creators have erected high entry barriers through superior technology or strong brand building. In the current study period, 73% of the Wealth Creating companies have one of these attributes as the differentiating factor.

We also observe that the share of commodity companies has been increasing from 14% in the 1994-1999 study, to 17% in the 1995-2000 study, to 21% in the 1996-2001 study and to 27% in the current study. The share of commodity companies in the current study has been the highest of all studies.

WEALTH CREATORS: CLASSIFICATION BY PRODUCT ATTRIBUTE



WEALTH CREATION STUDY	BRANDS (%)	COMMODITY (%)	TECHNOLOGY (%)
1997-02	49	27	24
1996-01	59	20	21
1995-00	47	17	36
1994-99	27	14	59
1993-98	26	24	50
1992-97	43	4	53
1991-96	27	20	53

1997-02	WEALTH CREATED (RS CR)	WEALTH CREATED (%)
Brands	87,357	43.4
Technology	80,211	39.9
Commodity	33,553	16.7
Total	201,120	100.0

Capital allocation

The change in the value of a company is strongly influenced by the superior rate at which invested capital has been deployed.

The large capital input in Reliance Industries stands out. The future productivity of capital would decide the value of the company.

The remarkable change in ONGC's RoCE has not led to a corresponding change in market price, probably because the market is unwilling to discount the dramatic change in financials in the recent past.

WEALTH CREATORS: CLASSIFICATION BY CAPITAL ALLOCATION (RS CR)

	△ CE	ROCE (%)		MARKET CAP.		△ M.CAP/	
		2002	1997	MAR-97	MAR-02	△ M.CAP	△ CE
Wipro	2,025	39	19	573	39,554	38,981	19
Hindustan Lever	1,752	68	50	18,697	49,604	30,907	18
Ranbaxy Laboratories	434	19	16	3,159	10,180	7,020	16
Infosys Technologies	1,967	49	41	731	24,714	23,983	12
Hero Honda Motors	559	88	32	599	6,664	6,065	11
Dr Reddy's Laboratories	1,108	34	13	489	8,401	7,911	7
Satyam Computer Services	1,808	26	24	129	8,419	8,289	5
ONGC	2,484	68	22	29,410	38,978	9,568	4
ITC	2,619	43	37	8,792	17,096	8,305	3
Reliance Industries	27,627	14	12	11,820	31,687	19,867	1

WEALTH CREATION	2002 ROCE > 1997 ROCE	
STUDY	NO. OF COMPANIES	% WEALTH CREATED
1997-2002	55/85	84
1996-2001	41/71	91
1995-2000	50/100	65
1994-1999	65/100	56

In all our Wealth Creation Studies, we have observed that better capital allocation has been consistently rewarded.

Wealth Creation Process of Growing Companies

A consistent finding of our Wealth Creation Studies, including the current one, is that most of the Wealth has been Created by companies that have seen their earnings grow faster than 25% annually.

WEALTH CREATORS: CLASSIFICATION BY EARNINGS GROWTH (RS CR)

EARNINGS GROWTH	NO OF COMPANIES	CONSTITUENT (%)	WEALTH CREATED	% OF WEALTH CREATED
>25	41	48	159,011	79
20-25	10	12	4,417	2
15-20	10	12	16,418	8
<15	24	28	21,275	11
Total	85		201,120	100

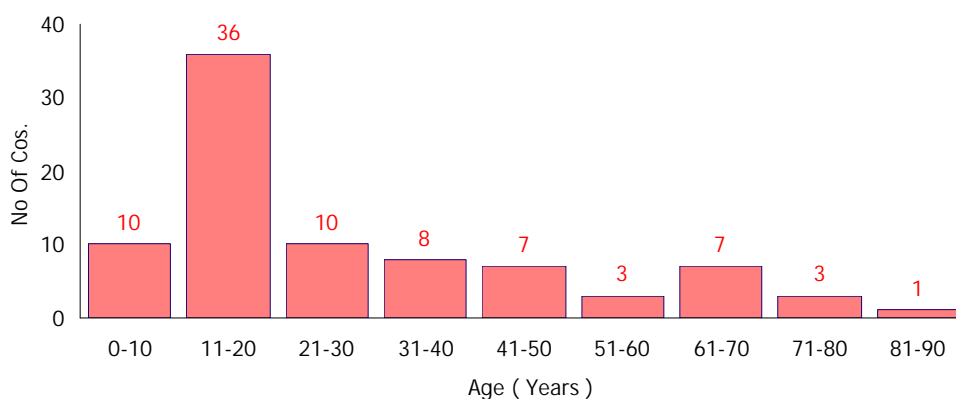
But again, companies that fulfill the earnings growth criteria, need not always be successful in Creating Wealth. Earnings growth is a necessary condition for Wealth Creating companies, but not a sufficient one.

Age analysis of wealth creators

Wipro, belonging to the 51-60 age group, has contributed 19% of total Wealth Created while HLL, belonging to the 61-70 group, has contributed 15% of total Wealth Created. Barring these two exceptions, we observe that most of the Wealth (46%) has been Created by companies that are less than 30 years old. The maximum Wealth (29%) has been Created by companies in the 11-20 age group. The maximum number of companies also exist in 11-20 years group. We can infer from this that most of the Wealth has been Created by relatively young companies.

WEALTH CREATORS: CLASSIFICATION BY AGE-GROUP (RS CR)

NO. OF YEARS	NO. OF COS.	WEALTH CREATED	% WEALTH CREATED
0-10	10	24,908	12
11-20	36	57,713	29
21-30	10	10,534	5
31-40	8	21,028	10
>40	21	86,963	43
Total	85	201,120	100



Wealth Creators ~ New Economy vs Old Economy

We have classified the technology, media and telecom sector companies as New Economy companies and the rest as Old Economy companies.

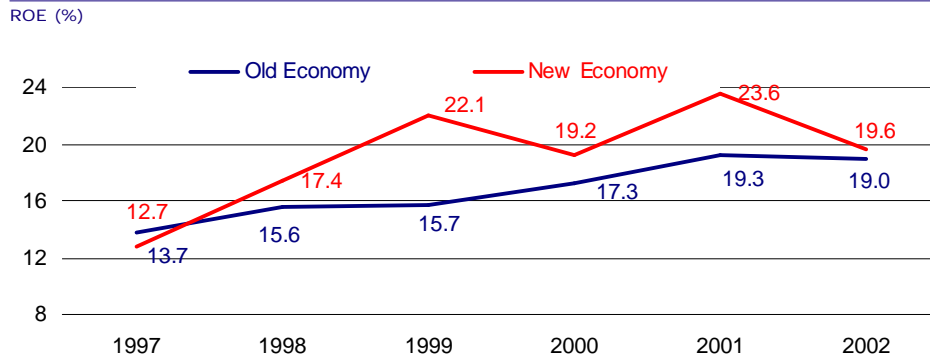
WEALTH CREATORS: NEW ECONOMY vs OLD ECONOMY

	OLD	NEW
Number of Companies in <i>Inquire-MOSt 85</i>	65	20
Earnings CAGR (%) (1997-2002)	22	62
Market Cap CAGR (%) (1997-2002)	17	96
P/E 1997 (x)	15	13
P/E 2002 (x)	11	29

- Earnings of New Economy companies have grown at a CAGR of 62% as compared to 22% for Old Economy companies.
- The P/E multiple of New Economy stocks has expanded from 13x in 1997 to 29x in 2002 while that of Old Economy companies has contracted from 15x to 11x over the same period.
- The CAGR in market capitalization for New Economy companies has been 96% compared to 17% for Old Economy companies during the study period.
- New Economy companies continue to score handsomely over Old Economy companies despite the meltdown in technology stocks.

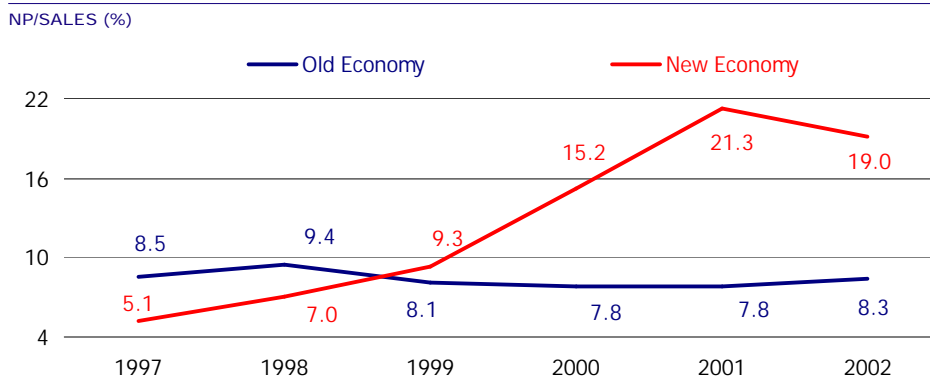
Return on equity

In contrast to New Economy companies, Old Economy companies have displayed steady improvement in RoE. After reaching a peak of 23.6% during the study period, the RoE of New Economy companies has almost converged with the RoE of the Old Economy companies in 2002.



Net profit/Sales

After four years of a one-way journey upwards for the net profit margins of New Economy companies, 2002 has been a year of correction. Net profit margins fell by almost 200bp from their peak levels in 2001. Though at less than half the New Economy companies, net profit margins of Old Economy companies have been showing signs of gradual improvement.



Importance of Interest in Wealth Creation

"Investing means laying out money today to receive more money in real terms after taking inflation into account, tomorrow".

What is the value of a stock?

The present worth of all dividends to be paid upon it... *John Burr Williams.*

Factors critical to determining the value of a stock

- Dividends (which are dependent on long-term earning power of the company)
- Discount rate (the rate at which future dividends will be discounted to the present value)

"There is no such thing as absolute value in this world. You can only estimate what the thing is worth to you".

No value, whether of bonds or equities, is absolute. It is always related to the risk-free rate that Government securities offer. Therefore, if the interest rate on Government securities rises, the prices of all other securities must adjust downward to a level that brings the expected rate of return to parity and vice-versa.

What an investor should pay today for a Dollar to be received tomorrow, can only be determined by first looking at the risk-free interest rate.

SENSITIVITY OF PRESENT VALUE OF THE FINANCIAL INSTRUMENT TO CHANGES IN INTEREST RATE

EQUITY AS BOND VALUATION

		Tenure (Years)					
			5	10	20	30	50
Face Value (Rs)	100						
P/BV (x)	2	6	447	653	1,353	2,739	10,925
RoE (%)	18	7	427	597	1,132	2,097	6,976
Earnings Growth (%)	14	8	408	546	949	1,613	4,494
Pay-out (%)	25	9	390	499	798	1,246	2,924
Interest (%)	6	10	373	458	673	968	1,923
Terminal P/BV (x)	3	11	357	420	569	756	1,282

BOND VALUATION

		Tenure (Years)					
			5	10	20	30	50
Face Value (Rs)	100						
P/BV (x)	1	6	151	188	238	265	289
RoE (%)	18	7	145	177	217	236	252
Earnings Growth (%)	0	8	140	167	198	213	222
Pay-out (%)	100	9	135	158	182	192	199
Interest (%)	6	10	130	149	168	175	179
		11	126	141	156	161	163

1. Longer the tenure, higher is the impact. Equity being a very long-term (perpetual) instrument, the compounding effect is maximum.
2. Equities deliver higher value for the same term because retained profits are re-invested at a higher rate.
3. Higher the gap between the coupon and the risk-free rate, the more superior is the discounting machine.
4. Shorter the tenure, more important is the selling price.

The American Experience

At this juncture, I am reminded of Mr Warren Buffett's article that appeared in *Fortune* in 2001, where he has tried to analyze the movement of the American market over 34 years from 1964 to 1998.

December 31, 1964	...	Dow	874
December 31, 1981	...	Dow	875
December 31, 1998	...	Dow	9,181

During the periods 1964-81 and 1981-99, the GNP of USA grew as under:

1964-81	...	373%
1981-98	...	177%

What is the reason for the markets to remain stagnant at around 875 during 1964-1981 and then move up 10 times during 1981-1998, while the GNP grew by 373% in the first period and by a much lower 177% in the second period? Mr Buffett believes that the market's contrasting move was caused by extraordinary **changes in two critical economic variables:**

1. Interest rate (discount rate)
2. Expected corporate profits

and by a related **psychological force** that eventually came into play:

3. Extrapolation of the recent past well into the future

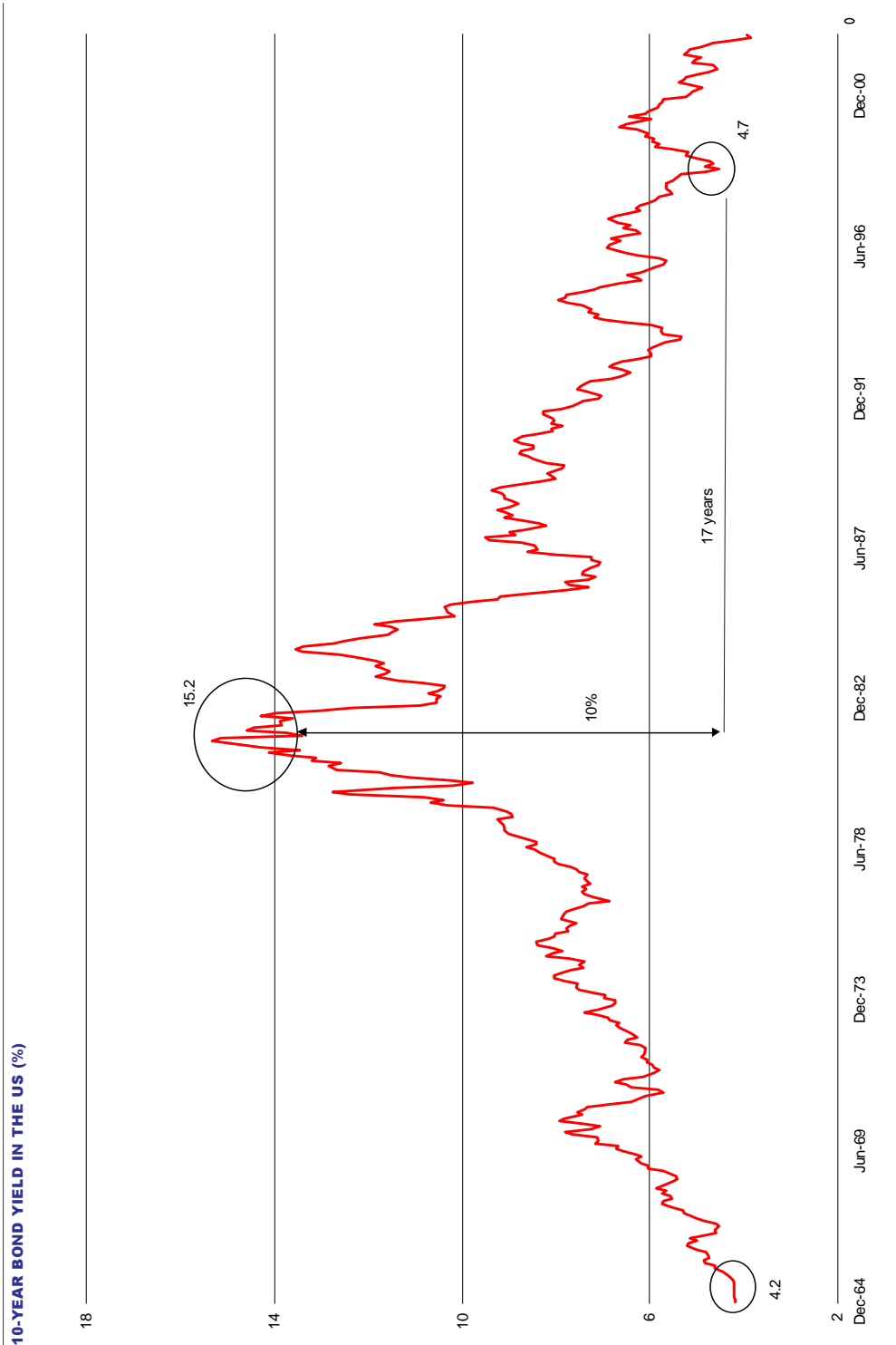
Interest rate

Long-term US Government bond rates

31.12.1964	...	4.20%
31.12.1981	...	13.65%
31.12.1998	...	5.09%

The tripling of interest rate between 1964 and 1981 pulled down the value of US equities dramatically and the trend reversal where interest rates fell from 14% to 5% between 1981 and 1998 pushed up the equity value to much higher levels.

The value of equities during this period was impacted by the change in the expectations relating to corporate profit, a discussion on which follows.



Expected corporate profits

By definition, markets discount/(and can discount), only **expected profit**.

In USA, during the period 1964-1981, corporate profits fell significantly because of high interest cost. Hence, investors lost their confidence in the profitability of the American corporate world. During the period 1981-1998, the trend reversal in interest rates enabled higher corporate profitability despite lower GNP growth. The steep decline in interest rates made a Dollar of future profits appear that much more valuable.

Mr Buffett has gone about establishing a linkage between US corporate profits and the American GNP. He says that the aggregate profits of American corporates have been ranging from 4% of GNP to 6.5% of GNP. He believes that American corporate profits as a percentage of GNP would remain in the 4-6.5% band. In 1981, aggregate corporate profits fell to 3.5% of GNP and in 1998, they grew to about 6% of GNP.

It is generally agreed upon that the GNP of the US would post a positive growth of at least 5% over 10-20 years. Hence, corporate profits, which are directly correlated to the GNP should also show positive growth and if one agrees with Mr Buffet, oscillate between 4% of GNP and 6.5% of GNP. Yet, markets repeatedly ignore situations like the one in the US in 1981 for psychological reasons.

Market psychology

People are habitually guided by the rear view mirror, in most instances by the vistas immediately behind them.

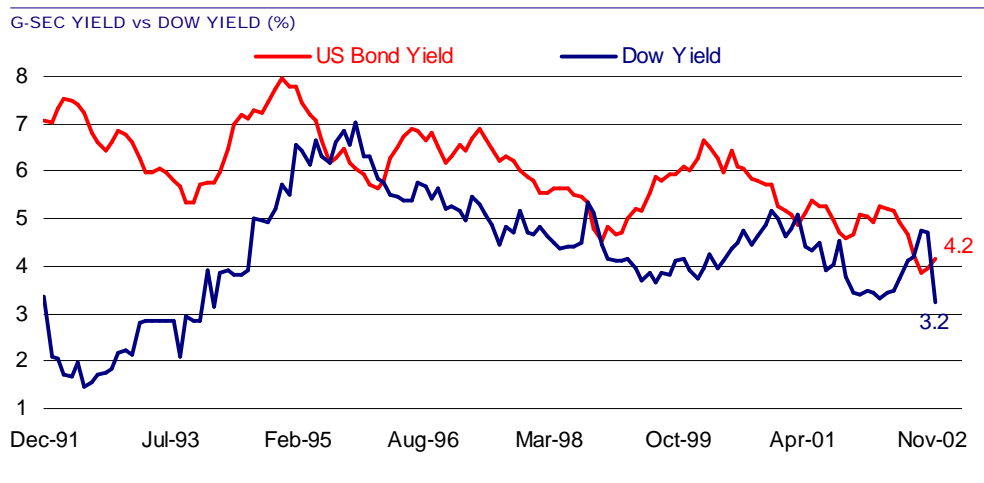
The dramatic changes in the above two fundamentals explained only part of the story of the more than 10-fold rise in the Dow Jones during 1981-98 from 875 to 9,181. The other important factor is market psychology. Once the bull market gets under way and once you reach the point where everybody has made money, no matter what system he or she follows, a crowd is attracted into the game that is not responding to interest rates and profits but simply to the fact that it appears to be a mistake to be out of stocks.

In effect, people superimpose an “*I cannot miss the party*” factor on top of the fundamental factors that drive the market. A man’s natural inclination is to cling to his beliefs, particularly if they are reinforced in recent markets; a flaw in our make-up that bears on what happens during secure bull markets and extended periods of stagnation.

Dow as a disguised bond

A bond comes with a certain maturity and a string of interest coupons. A stock, on the other hand, is a financial instrument that has a claim on future distribution made by the company, i.e. dividends. The set of owners receiving the dividends will change but the financial outcome depends on the size and timing of the coupons.

Estimating the size of the coupons gets very difficult for individual stocks but is easy for a group of stocks. If the Dow were earning 13% on the book and if somebody were willing to invest in equities for sometime, he would in effect be buying a 13% bond called Dow at par. This bond would be likely to do much better than the 9.5% Government bond.



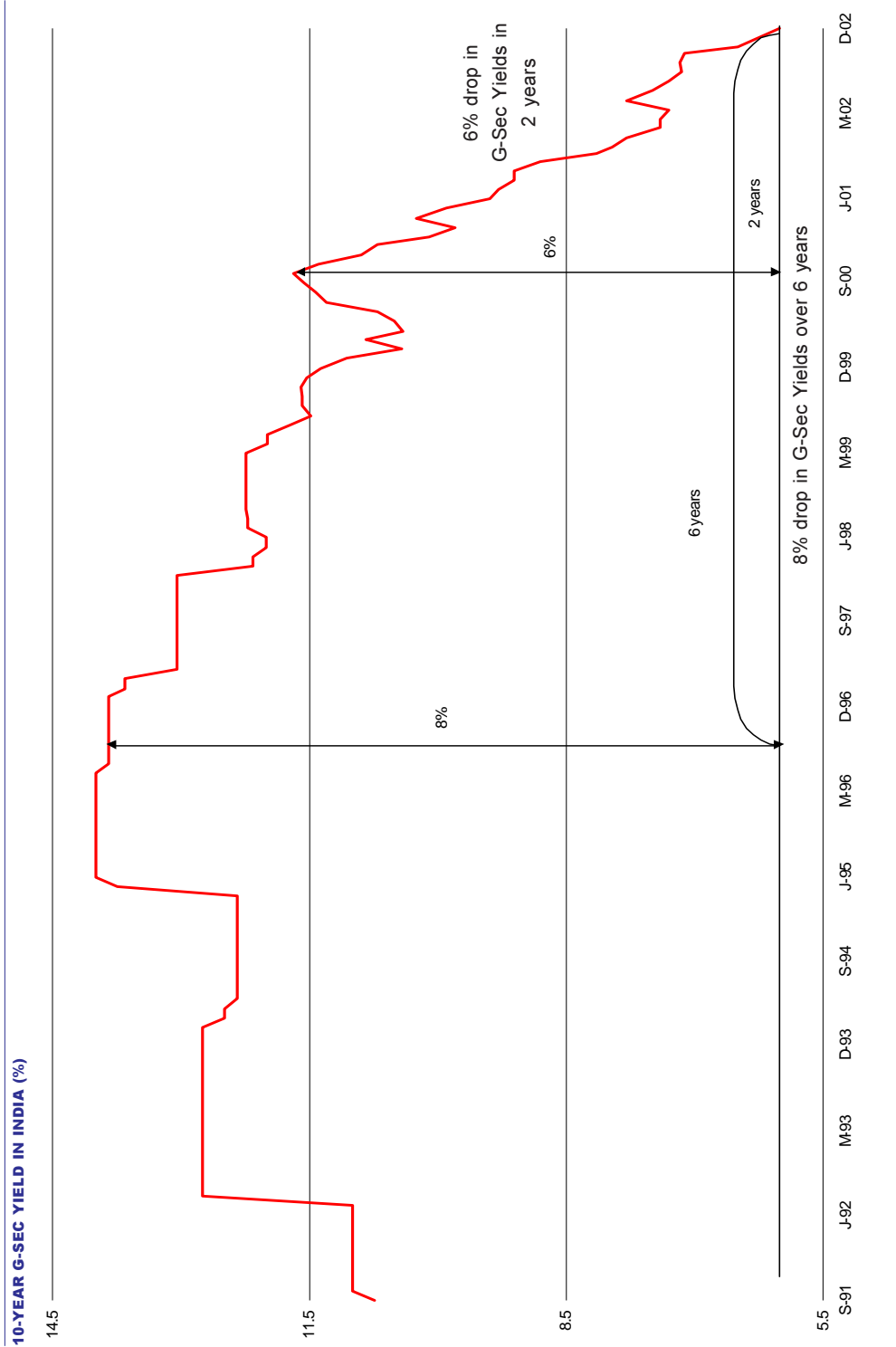
In essence, the depressed corporate profits/profitability in 1981 was reflected in the low discounting for equities. Just the reverse happened in 1998, when high corporate profits were discounted at high P/E multiples.

The Indian Corollary

Indian conditions in 2002 appear very similar to the American conditions in 1981. Indian corporate profits are depressed because of high interest cost and this is reflected in low P/E multiples.

For Indian companies, interest forms the second most largest item after raw material cost. It is higher than labor cost. The structure of the aggregate P/L account of Corporate India is presented below:

P/L ACCOUNT: INDIA INC.					(RS CR)
	1999	2000	2001	2002	2003E
Sales	810,882	949,313	1,118,570	1,338,608	1,539,399
Raw Material	350,102	423,761	523,602	577,306	677,335
Labour Cost	58,185	66,795	80,152	94,709	107,758
Other Expenses	209,037	236,885	272,571	378,561	431,032
EBITDA	193,558	221,873	242,246	288,032	323,274
Interest	119,421	134,196	148,236	171,688	184,728
Depreciation	32,478	38,234	40,421	48,592	58,500
PBT	44,191	53,647	58,014	67,752	80,046
Tax	12,130	15,627	17,666	25,420	28,016
PAT	32,061	38,020	40,348	42,333	52,030
Ratios (%)					
RM Cost/Sales	43.2	44.6	46.8	43.1	44.0
Labour Cost/Sales	7.2	7.0	7.2	7.1	7.0
Other Exp./Sales	25.8	25.0	24.4	28.3	28.0
EBITDA/Sales	23.9	23.4	21.7	21.5	21.0
Interest/Sales	14.7	14.1	13.3	12.8	12.0
Depreciation/Sales	4.0	4.0	3.6	3.6	3.8
PBT/Sales	5.4	5.7	5.2	5.1	5.2
Tax/Sales	1.5	1.6	1.6	1.9	1.8
PAT/Sales	4.0	4.0	3.6	3.2	3.4
Components of RoCE (%)					
PBIT/Sales	20.2	19.8	18.4	17.9	17.2
Sales/CE	0.5	0.5	0.5	0.5	0.6
PBIT/CE	9.4	9.5	9.2	8.8	9.7
Components of RoE (%)					
PAT/Sales	4.0	4.0	3.6	3.2	3.4
Sales/CE	0.5	0.5	0.5	0.5	0.6
CE/Net Worth	4.2	4.3	4.6	4.4	5.7
PAT/Net Worth	7.7	8.4	8.3	6.8	10.8



Interest rate

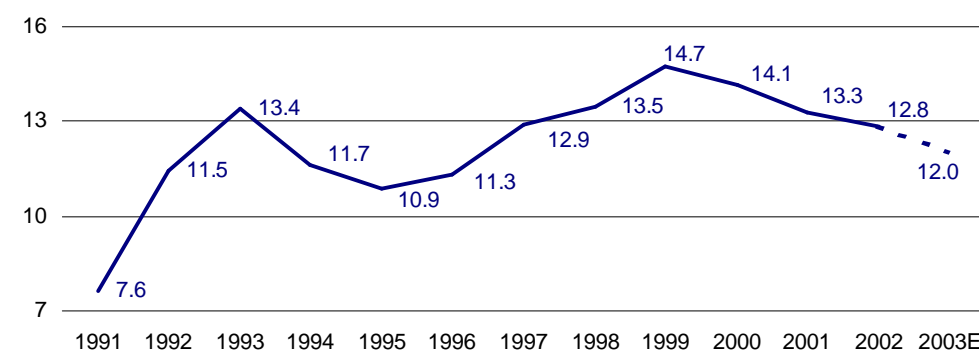
Till about 1996-97, when the peak of 14% for 10-year Government bonds was achieved, interest rates were strictly regulated by the Reserve Bank of India. The rates have since dropped to 12% in 1998 and then at an accelerated pace to 6% in 2003. The extent of interest rate fall in India and the US is the same but the time taken for this to happen in India is a third of that in US. At this juncture, we must not forget that the price to book of Dow Jones in 1981 was 1x whereas the Sensex is currently trading at 2x its book value.

Expected corporate profits

Interest cost as percentage of sales declining

India Inc's interest cost as a percentage of sales has declined from a high of 14.7% in 1999 to 12.8% in 2002. With interest rates headed southwards or expected to be maintained at current levels and the economy poised to grow at higher rates, further savings in interest cost will be realized by companies in the coming years.

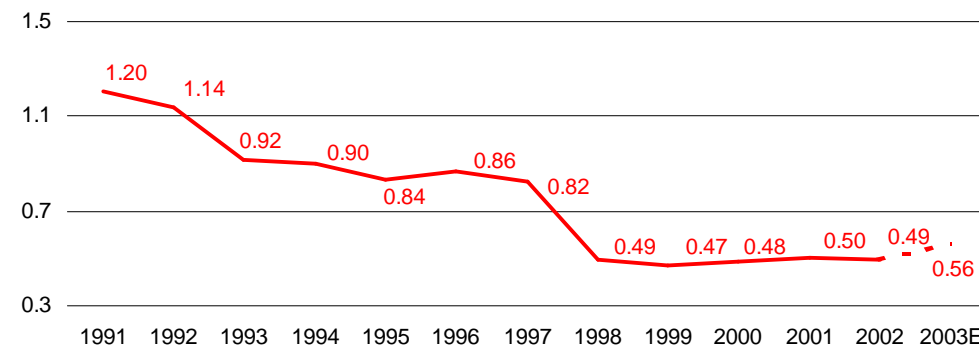
INTEREST COST AS % OF SALES



Asset-turnover ratios on the rise

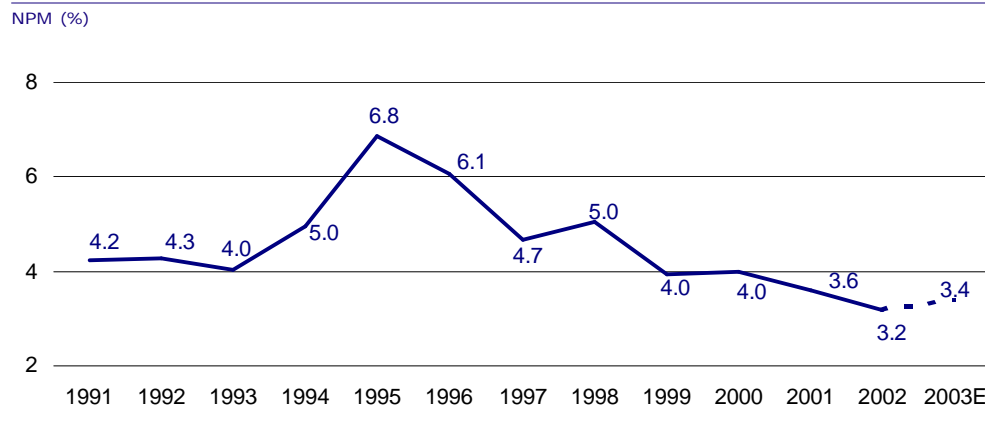
Indian companies have realized the importance of capital allocation. The overcapacity in the economy will see to it that existing capacity is utilized better as the economic growth accelerates. This would lead to a higher asset-turnover ratio.

ASSET TURNOVER RATIO (X)



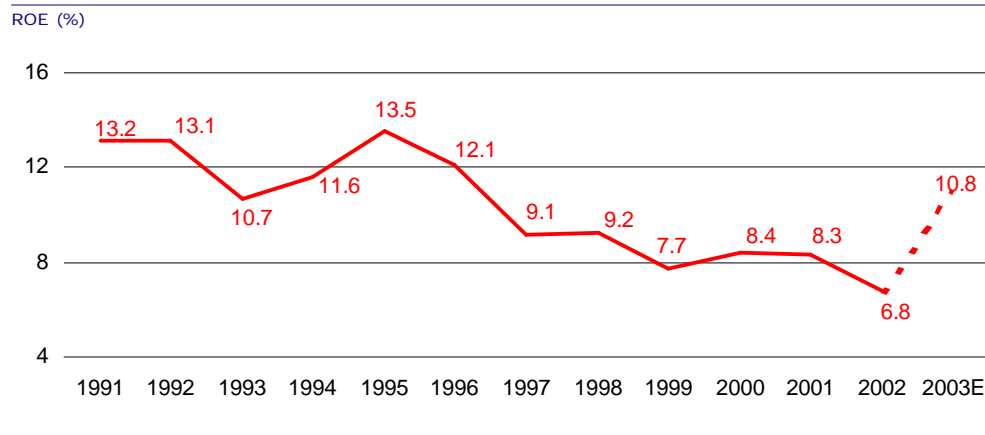
Net Profit Margin to improve

We believe that after four years of continuous decline, India Inc's net profit margin (NPM) should show a strong improvement. The best net profit margin of 6.8% was achieved in 1995.



Return on Equity to increase

The expected improvement in the asset-turnover ratio on account of higher capacity utilization and higher NPM would lead to a rise in RoE till new capacities come on stream.



Higher RoE and lower risk-free rate of return from bonds would make equities more attractive.

Sensex as a disguised bond

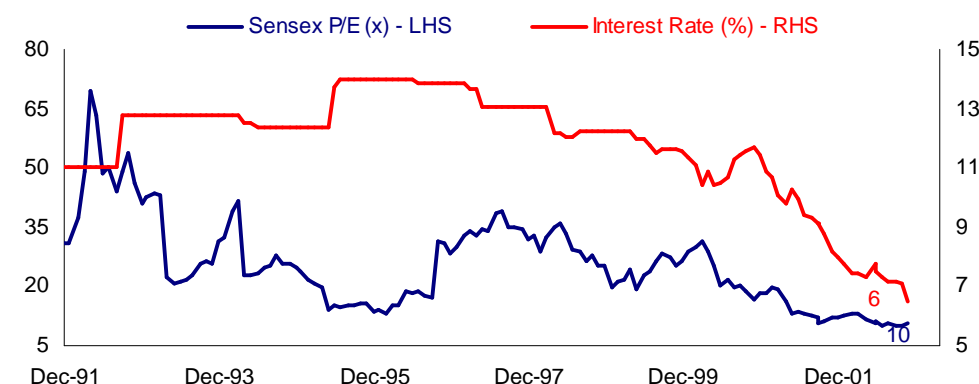
Currently, the Sensex offers a 2.5% dividend yield. It earns 18% on the book, which is likely to grow at 10% in the next 10 years (last 10 years growth was 16%). It trades at 2x book giving an effective yield of 9% against a 6% yield for the 10-year Government of India paper. We have attempted to calculate the theoretical intrinsic value of the Sensex with the following assumptions.

SENSEX VALUATION

ASSUMPTION		EXPECTED SENSEX VALUES							
Years	10	Discount Rate (%)	Return on Equity (%)						
Terminal P/BV	2.0			22	20	18	16	14	12
RoE (%)	18		10	5,443	5,064	4,685	4,306	3,926	3,547
Initial Profit (Rs)	297		9	5,927	5,515	5,103	4,691	4,279	3,867
Profit Growth Rate (%)	10		8	6,462	6,013	5,565	5,116	4,668	4,220
Payout Ratio (%)	25		7	7,053	6,564	6,075	5,587	5,098	4,609
Discount Rate (%)	6	6	7,706	7,173	6,640	6,107	5,574	5,041	
		Profit Growth Rate (%)	Return on Equity (%)						
				22	20	18	16	14	12
			15	9,285	8,609	7,932	7,256	6,579	5,902
			14	8,936	8,291	7,646	7,001	6,357	5,712
			13	8,604	7,989	7,375	6,760	6,145	5,531
			12	8,289	7,703	7,117	6,531	5,945	5,359
		10	7,706	7,173	6,640	6,107	5,574	5,041	
		Discount Rate (%)	Profit Growth Rate (%)						
				18	14	13	12	11	9
			10	7,046	5,184	4,799	4,443	4,112	3,522
			9	8,396	6,155	5,693	5,264	4,867	4,159
			8	10,148	7,414	6,850	6,328	5,844	4,982
			7	12,482	9,089	8,390	7,743	7,144	6,076
		6	13,954	10,146	9,361	8,635	7,962	6,765	

- For given interest rates in 1990s, the Sensex was probably not very attractive
- Current profitability of Sensex companies (RoE-18%) and discount rate (6%) suggest substantial scope for appreciation

SENSEX P/E vs INTEREST RATE (%)

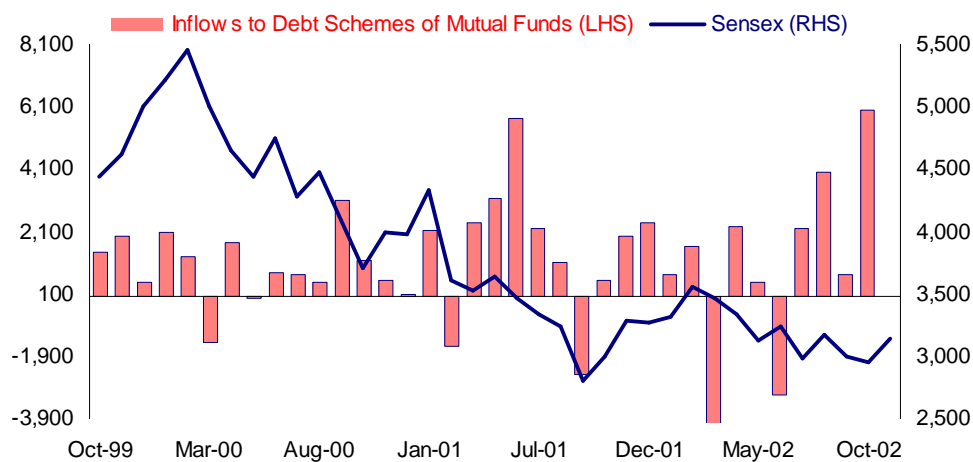


Psychological factor

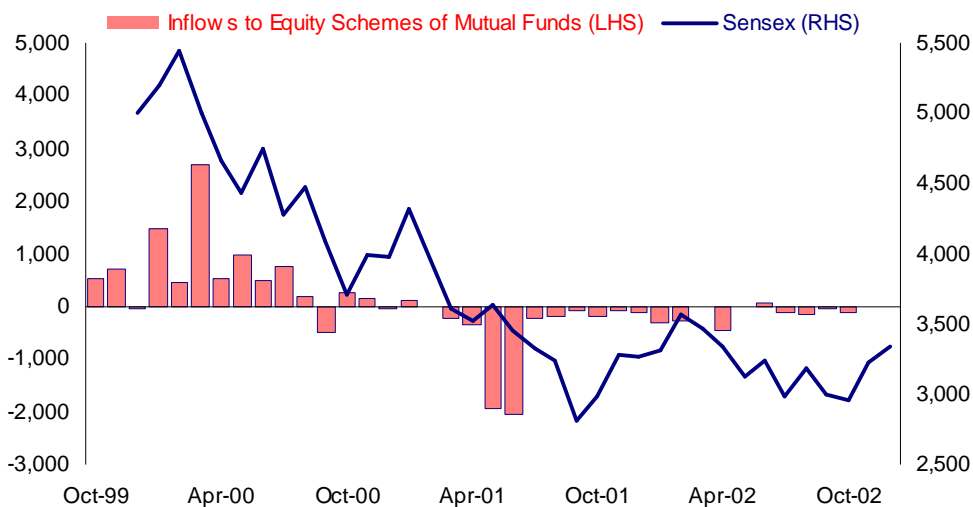
Current shift from equities to debt: rear-view driving

Currently, investors are staying away from equities and putting money into debt. Investors are busy buying Government of India bonds. This is rear-view mirror driving at its best. Bonds have given 35% return in the last two years. The probable fall in bond yields from current levels is limited. Investors in bonds can expect 6-8% return going forward.

MONTHLY INFLOW INTO DEBT FUNDS (RS CR)

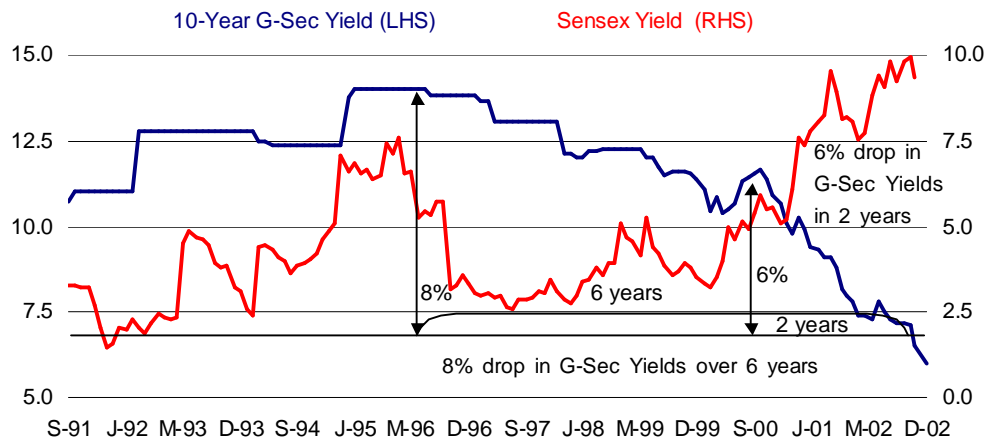


MONTHLY INFLOW INTO EQUITY FUNDS (RS CR)



Investment in debt funds is happening because of recent past experiences being extrapolated into the future. It is certain that in the longer term one can get only 6% return from a 6% bond. But it will take some time for people to realize this fact. As Phil Fisher says, "It is often easier to tell what will happen to the price of stocks than how much time will elapse before it happens".

INDIA: 10-YEAR G-SEC YIELD vs SENSEX YIELD (%)



Bond-earnings yield divide to correct: when, is the question

In the last 10 years, the Sensex profits have grown at a compounded rate of 16%, 4-5% higher than the nominal GDP growth rate (with the changing composition of the Sensex). The resultant divide in bond yield and earnings yield is glaring and needs to be corrected. While one does not know for sure how and when this will happen, that it will is certain.

“At all times, in all markets in all the parts of the world, the tiniest change in interest rates changes the values of every financial asset”.

'MOST-Inquire 85' ~ Wealth Creators

Appendix I

SR. NO.	COMPANY NAME	ROE (%)		MARKET CAP (RS CR)		△ CE	△ MCAP/		WEALTH CREATED	
		2002	1997	2002	1997		△ CE	△ CE	RS CR	%
1	Aftek Infosys	24.7	29.3	284	12	93	2.9		216	0.1
2	Amtek Auto	11.8	22.4	296	10	211	1.4		211	0.1
3	Apollo Hospitals Enterprise	10.7	18.0	511	42	274	1.7		339	0.2
4	Asian Paints (India)	28.1	24.5	2,106	1,121	169	5.8		984	0.5
5	ACC	12.8	7.7	2,633	1,814	889	0.9		637	0.3
6	Astrazeneca Pharma India	4.5	30.3	182	71	36	3.1		111	0.1
7	Aurobindo Pharma	19.0	26.4	443	33	542	0.8		387	0.2
8	Aventis Pharma	29.5	17.1	932	739	69	2.8		193	0.1
9	BPCL	21.3	20.7	9,894	5,441	4,441	1.0		4,453	2.2
10	Birla 3M	19.8	10.1	351	225	70	1.8		126	0.1
11	Blue Dart Express	16.6	0.8	212	52	63	2.5		152	0.1
12	Britannia Industries	54.9	17.5	1,453	446	392	2.6		1,008	0.5
13	BSES	10.5	13.4	3,056	2,741	608	0.5		289	0.1
14	Cadbury India	23.6	19.9	1,715	646	152	7.0		1,022	0.5
15	Cipla	26.7	26.9	6,105	1,164	627	7.9		4,980	2.5
16	CMC	36.3	7.5	824	53	39	20.0		771	0.4
17	Dabur India	16.2	22.0	1,588	690	223	4.0		894	0.4
18	Digital GlobalSoft	41.0	27.8	1,863	326	119	13.0		1,538	0.8
19	Dr Reddy's Laboratories	31.5	11.1	8,401	489	1,074	7.4		6,597	3.3
20	Electrosteel Castings	24.8	29.6	295	65	370	0.6		238	0.1
21	e-Serve International	39.8	8.0	629	14	-4	-157.0		614	0.3
22	Essel Propack	7.4	13.6	865	145	449	1.6		428	0.2
23	FDC	25.8	9.5	201	62	89	1.6		140	0.1
24	Finolex Cables	11.2	10.0	480	253	-62	-3.7		294	0.1
25	Finolex Industries	15.5	5.0	368	181	-130	-1.4		242	0.1
26	GlaxoSmithKline Consumer	28.7	34.8	1,713	795	133	6.9		919	0.5
27	GlaxoSmithKline Pharma	7.8	18.7	2,529	1,527	281	3.6		625	0.3
28	Godfrey Phillips India	20.0	26.2	388	141	138	1.8		246	0.1
29	GTL	8.2	14.0	741	147	950	0.6		262	0.1
30	Gujarat Ambuja Cements	11.6	14.9	2,947	1,848	1,767	0.6		987	0.5
31	Gujarat Gas Company	47.3	40.4	674	160	139	3.7		514	0.3
32	HCL Infosystems	14.1	3.4	384	85	195	1.5		299	0.1
33	HDFC Bank	15.3	16.6	6,616	930	1,701	3.3		4,686	2.3
34	Hero Honda Motors	67.5	36.2	6,664	599	562	10.8		6,065	3.0
35	Hinduja TMT	12.5	4.0	858	63	144	5.5		778	0.4
36	Hindustan Inks & Resins	20.1	23.4	432	53	534	0.7		278	0.1
37	Hindustan Lever	53.9	37.2	49,604	18,697	1,735	17.8		27,111	13.5
38	HPCL	13.4	18.6	9,861	7,530	4,662	0.5		1,748	0.9
39	Hindustan Zinc	6.4	3.5	1,527	830	-68	-10.2		697	0.3
40	HDFC	21.5	15.4	8,332	3,276	13,308	0.4		4,985	2.5
41	IBP	43.9	9.8	1,958	210	-242	-7.2		1,748	0.9
42	Indo Gulf Corporation	19.1	11.1	970	524	1,583	0.3		240	0.1
43	Infosys Technologies	38.8	33.0	24,714	731	1,824	13.1		23,690	11.8
44	ITC	27.4	26.9	17,096	8,792	2,299	3.6		8,294	4.1
45	ITI	7.3	-28.0	178	62	551	0.2		117	0.1

'MOST-Inquire 85' ~ Wealth Creators

Appendix I

SR. NO.	COMPANY NAME	ROE (%)		MARKET CAP (RS CR)		Δ CE	Δ MCAP/ Δ CE	WEALTH CREATED	
		2002	1997	2002	1997			RS CR	%
46	J B Chemicals & Pharama.	22.1	25.4	247	67	92	2.0	181	0.1
47	Jaiprakash Industries	12.7	3.0	425	243	385	0.5	133	0.1
48	Kotak Mahindra Finance	10.7	9.7	845	196	-99	-6.6	545	0.3
49	LIC Housing Finance	20.0	18.4	541	405	4,062	0.0	135	0.1
50	Lupin	21.7	13.1	470	68	825	0.5	350	0.2
51	Mastek	30.9	13.6	504	43	50	9.2	463	0.2
52	Merck	29.7	26.7	510	293	60	3.6	217	0.1
53	MIRC Electronics	20.0	13.9	287	36	117	2.1	160	0.1
54	Moser Baer (India)	23.4	29.6	1,221	18	1,270	0.9	711	0.4
55	National Fertilizer	3.7	0.9	1,226	638	-2	-239.3	589	0.3
56	Navneet Publications (India)	26.9	24.6	329	114	50	4.3	220	0.1
57	Nestle India	65.3	21.3	4,941	2,063	-128	-22.4	2,877	1.4
58	Nicholas Piramal India	17.0	9.1	1,029	418	140	4.4	585	0.3
59	ONGC	20.9	10.1	38,978	29,410	-524	-18.3	9,568	4.8
60	Panacea Biotech	28.9	23.4	203	21	106	1.7	182	0.1
61	Pfizer	28.0	18.8	1,055	272	82	9.5	784	0.4
62	Pidilite Industries	20.0	19.2	447	208	135	1.8	248	0.1
63	Proctor & Gamble	35.3	21.3	1,088	787	37	8.1	308	0.2
64	Ranbaxy Laboratories	15.8	16.7	10,180	3,159	442	15.9	6,797	3.4
65	Rashtriya Chemicals & Fertilizers	2.0	7.1	618	386	626	0.4	232	0.1
66	Raymond	9.3	1.8	588	582	41	0.2	193	0.1
67	Reckitt Benckiser (I)	15.5	17.7	794	657	35	3.9	137	0.1
68	Reliance Industries	13.1	15.6	31,687	11,820	29,802	0.7	8,401	4.2
69	Rolta India	29.2	18.0	692	76	363	1.7	598	0.3
70	Satyam Computer Services	23.3	21.2	8,419	129	1,779	4.7	7,523	3.7
71	Saw Pipes	10.6	25.2	291	188	84	1.2	103	0.1
72	Shipping Corporation of India	11.3	15.8	1,921	1,016	-524	-1.7	905	0.4
73	Soundcraft Industries	25.6	52.3	689	84	237	2.5	594	0.3
74	Sri Vishnu Cement	3.4	128.9	340	19	-21	-15.2	320	0.2
75	Sterling Biotech	10.6	9.3	255	26	163	1.4	226	0.1
76	Sun Pharmaceuticals Industries	32.0	28.6	3,132	380	339	8.1	2,800	1.4
77	Tata Elxsi	40.0	2.1	240	45	4	45.7	194	0.1
78	Tata Infotech	10.8	23.4	386	262	120	1.0	124	0.1
79	Tata Telecom	16.8	2.9	242	43	11	18.0	177	0.1
80	Torrent Pharmaceuticals	21.7	21.6	455	169	-110	-2.6	286	0.1
81	Unichem Laboratories	31.2	7.1	171	45	56	2.2	124	0.1
82	Vysya Bank	12.3	14.2	553	314	98	2.5	137	0.1
83	Wipro	34.2	26.8	39,554	573	1,930	20.2	38,322	19.1
84	Zee Telefilms	2.4	30.7	6,922	164	4,330	1.6	3,243	1.6
85	Zensar Technologies	14.8	47.7	319	21	22	13.5	278	0.1
Total		22.0	19.1	346,662	119,295	89,481	3	201,120	100.0

'MOST-Inquire 85' ~ Wealth Creators (Rankings)

Appendix II

RANK NO.	COMPANY NAME	P/E (X)		PAYBACK RATIO (X)	WEALTH CREATED		MCAP CAGR (%)
		2002	1997		RS CR	%	
1	Wipro	45.7	0.6	0.3	38,322	19.1	132.6
2	Satyam Computer Services	18.8	0.7	0.1	7,523	3.7	121.7
3	e-Serve International	49.2	9.5	0.7	614	0.3	109.7
4	Infosys Technologies	30.8	2.5	0.4	23,690	11.8	97.0
5	Moser Baer (India)	5.7	1.7	0.0	711	0.4	83.1
6	Zee Telefilms	51.0	0.6	0.6	3,243	1.6	80.3
7	Sri Vishnu Cement	50.0	1.7	2.6	320	0.2	78.1
8	Aftek Infosys	11.4	7.0	0.3	216	0.1	74.9
9	CMC	24.5	20.4	0.6	771	0.4	73.3
10	Amtek Auto	11.1	0.9	0.2	211	0.1	69.9
11	Aurobindo Pharma	7.3	3.2	0.1	387	0.2	65.1
12	Dr Reddy's Laboratories	18.4	7.5	0.9	6,597	3.3	64.1
13	Mastek	42.9	2.6	0.5	463	0.2	63.1
14	Zensar Technologies	31.0	0.0	0.8	278	0.1	62.0
15	Hero Honda Motors	14.7	1.2	0.5	6,065	3.0	61.9
16	Sterling Biotech	12.4	2.5	0.2	226	0.1	58.2
17	Panacea Biotec	8.4	2.6	0.2	182	0.1	57.2
18	IBP	10.0	8.4	0.6	1,748	0.9	56.2
19	MIRC Electronics	8.4	2.4	0.2	160	0.1	51.7
20	Soundcraft Industries	22.4	0.3	0.7	594	0.3	51.6
21	Sun Pharmaceuticals Industries	18.5	2.6	0.8	2,800	1.4	50.9
22	Rolta India	6.6	3.6	0.2	598	0.3	49.7
23	Hindustan Inks & Resins	10.0	2.5	0.4	278	0.1	47.7
24	Lupin	6.7	17.9	0.4	350	0.2	42.0
25	Digital GlobalSoft	20.1	16.1	1.3	1,538	0.8	41.7
26	Hinduja TMT	18.4	12.5	0.5	778	0.4	41.2
27	Tata Elxsi	14.3	80.8	1.1	194	0.1	39.5
28	Cipla	26.0	5.5	1.5	4,980	2.5	39.3
29	HDFC Bank	22.3	23.9	1.2	4,686	2.3	38.3
30	Apollo Hospitals Enterprise	20.9	3.7	0.4	339	0.2	37.5
31	Essel Propack	22.2	4.3	1.2	428	0.2	36.1
32	Electrosteel Castings	3.5	1.2	0.2	238	0.1	35.5
33	HCL Infosystems	6.9	7.2	0.3	299	0.1	35.3
34	Gujarat Gas Company	11.4	7.0	0.9	514	0.3	33.4
35	Tata Telecom	15.4	34.9	8.2	177	0.1	33.2
36	Pfizer	22.8	7.3	1.8	784	0.4	31.2
37	Britannia Industries	7.2	17.3	1.1	1,008	0.5	27.6
38	J B Chemicals & Pharamaceuticals	5.9	1.6	0.5	181	0.1	27.3
39	FDC	52.6	11.3	0.5	140	0.1	26.4
40	Unichem Laboratories	5.6	3.5	0.7	124	0.1	25.9
41	Blue Dart Express	11.7	73.2	1.3	152	0.1	24.3
42	ITI	8.3	0.0	0.4	117	0.1	23.7
43	Navneet Publications (India)	10.6	4.9	1.0	220	0.1	23.6
44	Ranbaxy Laboratories	40.2	24.5	3.9	6,797	3.4	22.4
45	Godfrey Phillips India	8.1	5.5	0.6	246	0.1	22.4
46	Torrent Pharmaceuticals	9.1	5.3	0.6	286	0.1	21.9
47	Astrazeneca Pharma India	60.1	10.3	1.6	111	0.1	20.6

'MOST-Inquire 85' ~ Wealth Creators (Rankings)

Appendix II

RANK NO.	COMPANY NAME	P/E (X)		PAYBACK RATIO (X)	WEALTH CREATED		MCAP CAGR (%)
		2002	1997		RS CR	%	
48	HDFC	7.2	0.7	1.6	4,985	2.5	20.0
49	Hindustan Lever	31.3	3.4	3.8	27,111	13.5	19.1
50	Nestle India	31.0	39.0	3.7	2,877	1.4	19.1
51	Reliance Industries	9.8	4.5	1.2	8,401	4.2	18.6
52	Finolex Industries	4.1	8.9	1.0	242	0.1	18.5
53	Cadbury India	29.8	20.8	3.8	1,022	0.5	18.4
54	Dabur India	24.9	1.6	2.2	894	0.4	18.1
55	Kotak Mahindra Finance	15.9	7.8	1.9	545	0.3	17.9
56	GlaxoSmithKline Consumer	13.9	10.9	1.7	919	0.5	16.6
57	Pidilite Industries	8.6	6.5	1.0	248	0.1	15.7
58	Finolex Cables	7.3	2.7	0.8	294	0.1	14.8
59	ITC	14.4	26.1	2.1	8,294	4.1	14.2
60	National Fertilizer	30.1	56.5	1.9	589	0.3	14.0
61	Shipping Corporation of India	5.1	4.5	0.8	905	0.4	13.6
62	Asian Paints (India)	18.6	13.4	2.4	984	0.5	13.4
63	Hindustan Zinc	22.5	28.1	1.7	697	0.3	13.0
64	BPCL	11.6	12.7	1.5	4,453	2.2	12.7
65	Nicholas Piramal India	21.3	16.5	1.8	585	0.3	12.4
66	Jaiprakash Industries	3.6	3.3	0.8	133	0.1	11.8
67	Merck	11.9	18.5	2.0	217	0.1	11.7
68	Rashtriya Chemicals & Fertilizers	25.5	5.2	0.9	232	0.1	9.9
69	Gujarat Ambuja Cements	16.8	6.4	1.7	987	0.5	9.8
70	Birla 3M	25.5	79.4	6.9	126	0.1	9.3
71	Saw Pipes	11.0	4.0	1.5	103	0.1	9.1
72	Indo Gulf Corporation	3.3	5.0	0.5	240	0.1	9.0
73	Tata Infotech	18.8	4.1	1.9	124	0.1	8.1
74	GTL	6.8	8.2	0.2	262	0.1	6.9
75	Procter & Gamble	14.9	20.0	2.3	308	0.2	6.7
76	LIC Housing Finance	3.7	6.6	0.7	135	0.1	5.9
77	Glaxosmithkline Pharma	57.5	31.9	4.8	625	0.3	5.9
78	ONGC	6.3	14.7	1.4	9,568	4.8	5.8
79	ACC	20.2	2.2	10.6	637	0.3	5.7
80	Vysya Bank	8.1	4.2	1.2	137	0.1	5.4
81	Aventis Pharma	14.1	38.2	4.3	193	0.1	4.7
82	Raymond	7.0	48.1	0.8	193	0.1	4.4
83	HPCL	12.5	8.3	1.8	1,748	0.9	3.9
84	Reckitt Benckiser (I)	37.9	33.4	5.6	137	0.1	3.8
85	BSSE	11.0	13.5	1.9	289	0.1	2.2
Total					201,120	100.0	

Note: Payback Ratio = Market Capitalization of 1997 divided by sum of five years profit from 1998-2002. CE = Capital Employed

N O T E S

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