

Question Paper

Security Analysis – II (212) : October 2002

Part D : Case Study (50 Points)

- This part consists of questions with serial number 1 - 5.
- Answer all questions.
- Points are indicated against each question.
- Do not spend more than 80 - 90 minutes on Part D.

Case Study

Read the case carefully and answer the following questions:

1. Perform Michael Porter's analysis of the Indian audio industry.

(8 points)
2. Perform SWOT analysis of Philips India Ltd. and based on the analysis, comment on whether Philips India Ltd. is investment worthy or not.

(6 points)
3. Based on the financial statements provided, perform ROE analysis for Philips India Ltd. for the past 4 years and comment on the same.

(8 points)
4. From the data provided in Annexure I, determine:
 - a. The probability that the return from the stock of Philips India Ltd. would be between zero and 5% during April 2002.
 - b. The suitability of the stock for investment by an individual who wants that the proportion of unsystematic risk in his investment should not exceed 20%.

(5 + 8 = 13 points)
5. Comment on whether the stock should be bought or sold at points A, B, C and D based on the share price charts given in Annexure II.

(8 points)
6. From the data provided in Annexure I, determine whether the stock price movement of Philips India Ltd. during April 02 to August 02 exhibit semi-strong form of efficiency based on Residual Analysis, if the prices and movement of S&P CNX 500 during 2002 are as follows:

End of Month	Philips Share price (Rs.)	S&P CNX 500
April	54.15	746.20
May	81.45	791.00
June	68.90	725.85
July	61.25	697.05
August	77.00	684.20

(7 points)

Traditionally, the Indian audio market is divided into the personal audio systems and the hi-fi audio systems. However a detailed classification results in 'n' different categories. The personal audio systems include radios, mono cassette recorders, stereo cassette recorders and headphones while the hi-fi systems include music systems with/without CDs, micro systems, mini component systems with/without VCD, etc.

The audio sector, which was growing at a healthy rate of 20% annually, for the last two years, has suddenly started showing signs of a negative growth during the first nine months. During the period, the overall value of the audio market was less than Rs7.5bn against Rs7.75bn during the same period in the previous year.

The above case is prepared only for the purpose of examination and not to illustrate either effective or ineffective performance of the company. The case contains real information adapted and combined with other information to generate discussion or analysis on the desired topics.

While the low end audio market has shown a stagnant growth during FY01, the hi-fi sub-segment has registered a sales growth of around 20-25%yoy. The worst hit was the Radio sub-segment, which registered an over 10% decline in sales this year. The stereo cassette recorders have also shown a negative growth of 5% during January – September this year.

With the shift in the consumer preferences towards technologically superior products, the hi-fi segment will continue to show good growth, with growth coming particularly from mini hi-fi segment. The audio components business, currently forming 3% of the total audio market will also see good growth in the years to come. Another promising segment in this market, is the car stereo category. With the growth of 50% seen in the last two years in the Car stereo segment, this is the new target for the branded audio players. This market is slated to show a high growth in the years to come.

Like in any other industry, Technology holds the key in the audio sector as well. This is evident from the growing hi-fi segment and the ailing personal audio segment. With India producing 900 films a year, consumers can look forward to seeing high-definition pictures coupled with Dolby sound effects sitting in their homes. Already in the USA, high definition TVs (HDTVs) and digital videodiscs (DVDs) have caught the consumer fancy with sales slated to grow at a rapid pace. Companies in India have also taken a note of this and are working on strategies to incorporate any new technology in their product line.

Technology

The *technological leap* in the world of Audio aims at shifting technology from storage to compression. A few years back the Indian audio market could be broadly classified into two main categories viz. Personal audio systems and hi-fi systems. Today it has expanded with many segments and categories. The main focus is currently on mini systems while the micro systems are being established gradually.

The SD TM (Secure Digital) cards from Panasonic and Memory Stick TM from Sony are set to revolutionize audio storage capacity. Both are memory storage devices, which allow music and digitized video images, computer files, etc. to be transferred among various sorts of electronic devices. While the memory stick is not larger than a chewing gum, the SD card is about the size of a postage stamp.

SD Memory Cards are non-volatile, which means they do not require power to retain the information stored on them. They are solid-state devices, so they have no moving parts to skip or break down. They offer a combination of high storage capacity (32 MB & 64 MB, with the promise of up to 128 MB and 256 MB in the not-too-distant future), fast data transfer, great flexibility and security.

SD will facilitate fast, simple, secure downloading of all types of digital files, like music, movies, photos, news - even cooking instructions for your microwave. Once downloaded to your PC, you can organize and store the files as you wish. Then easily transfer the files from your PC to a super-compact SD Memory Card, which will be accepted by a whole variety of future SD-enabled products. You will also be able to directly record your own audio, video, still photos, and more onto SD Memory Cards, as such products become available.

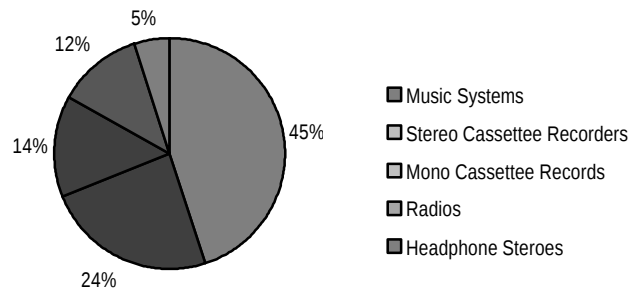
Audio Industry: Volumes and Values

The Indian market trend for audio systems seems to be following the steps of the international market where the movement was from Midi to Mini to Micros. The shift from Midi to Mini or from Mini to Micro simply means more technological enhancements and other features in the same or a smaller size system when compared to the older system. In India, the market has moved from the Midis in 1980s to Minis in mid-90s. While Midis have become almost insignificant, Micros are still a small segment. The micros are at 10% (in terms of volumes) and 7% (in terms of value) of the hi-fi segment.

To further understand the audio industry, we have broken up the audio industry into the following segments. Radios, Mono Cassette Recorders, Stereo Cassette Recorders, Music systems and the headphone market.

Of the Rs10bn audio industry, the Music Systems segment has the highest share of 45% amounting to Rs4.5bn. Music Systems with CDs form 27.6% value market share of the Audio category while Audio VCD segment forms around 14.8 % value percentage of the Audio category. The next category to follow is the Stereo Cassette Recorders, which constitute around 24% of the market at Rs2.4bn. The mono Cassette Recorders and the Radios both constitute 12% each at Rs1.2bn while the Headphone Stereos market stands holds a miniscule 5% share at Rs520mn.

Chart 1: The Audio Market 2000 (Value 10bn)

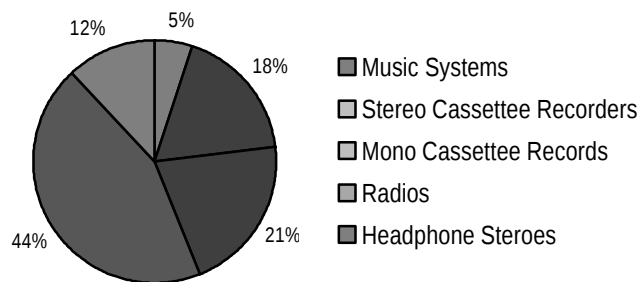


Source: TV Veopar Journal

During the period January – September 2000, the overall value of the audio market was less than Rs7.5bn against Rs7.75bn in the corresponding period last year. The worst hit was the radio sub-segment that registered a sales decline of over 10% this year. The main reason for the decline in radios has been the taxation policy of the Government. Radios are mainly sold in the rural areas and the weaker sections of the society. The Government has levied 16% excise duty on radios with an additional increase of 5% sales tax this year due to the rationalization, which it said has led to mushrooming of the grey market, which does not pay any taxes to the Government. The Stereo cassette recorders have also shown a 5% negative growth during the said period.

The audio market during FY01 is expected to be at 6.7mn units in terms of volumes.

Chart 2: The Audio Market 2000 (Volume)



Source: TV Veopar Journal

Radios form the major chunk of the audio market to around 3mn units. Mono Cassette Recorders form 21% of the total audio market to 1.4mn units. Stereo Cassette Recorders make 1.2mn units and the headphones make around 0.8mn units of the total 6.7mn audio market.

The interesting fact as seen from above is, that the music systems, which make only 5% of the total volume audio market, contribute around 45% of the total audio revenues while the converse is true for the radios. This implies that players like Aiwa, Sony, Philips, etc. who are doing well in the music system segment are also doing well in the overall audio segment on the revenues front.

Companies like National Panasonic and Sony, leading players in the audio market worldwide, have decided to bring in a fresh range of products and add more variety as well. As per industry gurus, the two primary reasons for their new found interest in the market could be the growth in the mini hi-fi segment to which they are largely targeting and the lifting of quantitative restrictions, which will see a flood of foreign consumer products in the Indian markets.

The components market is a small market of about 3% of the total audio market. The target audience for this segment is a typical audiophile for whom quality and not price is a main criterion. Components comprise of amplifiers, MD deck, Super Audio CD, Tape deck, speakers, etc. This segment caters to the customers who are looking at further improving the quality of their audio output by adding on a few accessories without having to upgrade his existing system.

The Car Stereo Market

Another new upcoming segment is the car stereo segment. The entry of new brands in the car market has activated the car stereo volumes by more than 50% in the last two years. The entire car market is placed at around 2mn units of which about 1mn-unit sales come from the unorganized market (generally called the Delhi market). The organized market consists of brands like Blaupunkt, Pioneer, Alpine, Kenwood, etc.

The recent entry by a host of big players indicates the beginning of a price war situation in this segment. JVC from Japan has already begun test-marketing its products and is planning an official entry in November'00. Panasonic has entered the market this month, while the price-warrior Japanese brand Aiwa with its usual exchange offers is likely to hit this month. While Videocon has already Kenwood and Sansui in place, it is now also offering systems at the low-end of the market under the Videocon brand name.

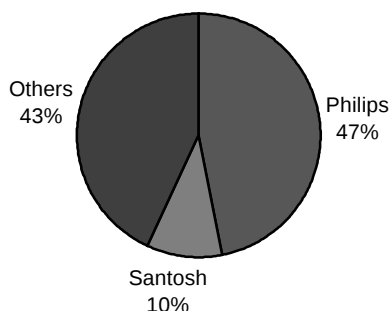
These companies are basically targeting the replacement market to take on the unorganized players by leveraging on their brand power and after-sales services. The idea is to induce the customers having a simple stereo system to switch over to a CD player.

Industry Players

The performance in the low-end segment has been far from satisfactory. The lower end products include radio, stereo cassette players and recorders, two in ones and the Walkman. The market is fragmented with many small time regional players. Sales in the lower-end occur mainly in rural areas and weaker sections of society. The sales in the radio sub-segment have dipped by more than 10% this year. The stereo cassette recorder segment has shown a negative sales growth of more than 5%. Major players in this segment are Philips, BPL and Videocon.

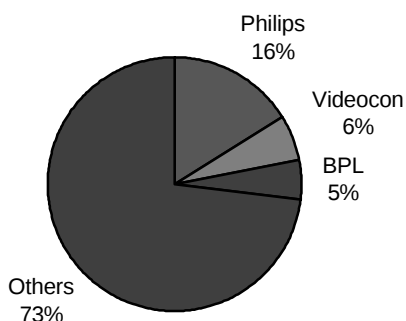
Philips is a clear winner in the sub-categories of radio, mono and stereo cassette recorders. In the Radio segment (Rs1.2bn), Philips has market share of 46.5%. The second largest player, Santosh, has a market share of 10.1% while the rest of the market consists of unorganized and other players.

Chart 3: The Radio market



In the Mono Radio Recorders market (Rs1.4bn), Philips leads with a 15.8% market share. BPL and Videocon are placed at similar levels with a market share of 5.3% and 5.6% respectively.

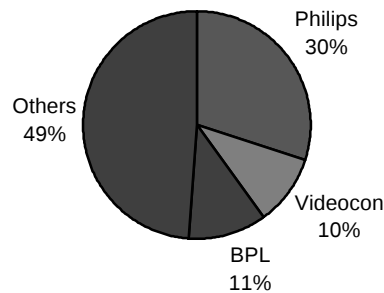
Chart 4: The Mono Cassette Recorder market



Source: TV Veopar Journal

A similar trend is witnessed in the Stereo Cassette Recorder market (Rs2.4bn). Philips has a market share of 30% while BPL and Videocon enjoy a share of 10.7% and 10% respectively.

Chart 5: The Stereo Cassette Recorders market

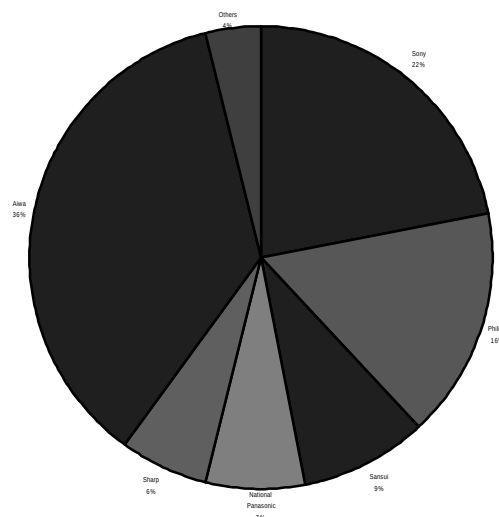


Source: TV Veopar Journal

Unlike the stagnant growth in the low-end audio segment, the hi-fi sub-segment registered a sales growth of around 20-25%yoy. In view of the healthy outlook in the hi-fi sub-segment, companies like Sony, Panasonic, Sharp, etc. are planning several new launches in this category.

In the Rs5bn Music system market, Aiwa rules with a market share of 35.2%. Sony and Philips follow with a market share of 21.7% and 16.2% respectively. Other leading players include Sansui, Panasonic and Sharp.

Chart 6: The Music Systems



Source: TV Veopar Journal

Philips India stands as source of reliable and innovative products. Their range of audio products includes radios, video hi-fi systems, hi-fi CD systems, personal stereos, portable CD systems and digital audio products.

Portable CD player is a new product for the Indian market in which Philips is one of the first companies to launch the product. Philips has claimed the highest all-India month-after-month consolidated value market share of 83.6 per cent in portable CD players, 22.6 per cent in headphone stereos and 27.8 per cent in headphone without radio product categories.

The company is showing considerable progress in the minis with CD segment where the company has claimed to achieve a phenomenal hike in the market share to 19.5% in September 2000 from 14.5% in August.

Sony India is a leader in the mini hi-fi audio (a segment of the hi-fi audio) with an approximate share of 45% in the sub-segment. The company is estimated to be leading in this category with about 45% in terms of value. The company plans to introduce new models of micro systems category for which the company is looking at new categories of Micros and Components. Sony is a leader worldwide in Components and in India, the company is targeting about 5% from this category to the hi-fi audio in the first year. About 200-300 dealers all over India and its exclusive outlets called Sony World are identified to sell this product.

Around 90% of the total new launches are in the hi-fi category. The Japanese major, National Panasonic is not only upgrading its existing range but is also planning to introduce its higher-end range by mid-2001. The

company's emphasis in audio can be gauged from the fact that from a five-model brand a month ago, it now has 20 models in this segment. The company registered a 180% rise in audio sales to Rs170mn.

The company plans to unfold a new era of convergence products like SD cards suited for the entire audio-visual segment. Besides, the company will also be introducing MP3 Players, which can be worn as a headphone or on the wrist like a watch.

The entry of Aiwa, the Japanese company whose products are marketed by Baron International brought a lot of changes in the audio market. The company's strategy involved selling mini hi-fi systems and when they reach critical mass (through exchange schemes and low pricing), package them with CTVs. The idea was to bring audio products to a commodity level and break the market open. The strategy has paid off well for Aiwa. It has become the largest selling hi-fi audio brand in India within two months of its launch in India by capturing 27.4% of the market.

Audio products from Akai include mini components and stereo radio recorders. The company plans to launch two new models in the mini components segment very soon, a 1500W audio CD and a 2000W-video CD system. Akai was a brand initially marketed by Baron International who now sells Aiwa products. Presently Videocon markets the Akai brand.

Kenwood audio systems range is designed to bring audio enjoyment close to the heart and encompass more than waveforms. Kenwood is also one of the brands marketed by Videocon. Kenwood has two models in the audio CD segment and two audio/video CD models.

BPL's range of products includes radios, mono radio recorders, double deck stereo systems, hi-fi systems, car audio products, CD players and CD systems. It has a good presence in the stereo cassette recorders segment where it claims to have a market share of 11%.

Onkyo India Private Ltd. established in 1994, is the Indian subsidiary of Onkyo Corp. Japan. The company manufactures and markets hi-fi audio and audio-related products like component audio systems, CD players, tape decks equalizers, tuners, MD receivers/players, speakers, etc. the company is not a part of the general audio market but has created a niche in the hi-fi audio segment.

Samsung entered with a designer slim line series of systems, which are just 12 cm thick and can be accommodated on a book-shelf or hung on a wall. The initial entry failed to attract much attention and hence the company has re-visited this market.

Forthcoming Attractions

The South Korean Multinational LG Electronics, which has already been a successful player in the CTVs, Refrigerators, Washing Machines and the Microwaves market, plans to enter the audio market in India by next July with a slew of mini and micro compos having MP3 and Internet compatibility. The audio products that would come with future technologies having multimedia compatibility and CDR/RW features, would be Internet-enabled in MP3 format.

This would be LG's first attempt to explore the audio systems market after almost four years of successful existence in India with products such as televisions, refrigerators, washing machines, microwaves and air conditioners, apart from a token presence in an equally insignificant MP3 segment. The company's audio manufacturing business has been shifted out of Korea to China and the CIS countries. The kits of the audio products would be imported and assembled in India with a 60% local content. Prices of the models would range between Rs10000 and Rs30000. LG expects to sell around 25,000 units with a sales turnover of Rs500mn during 2QFY2001, resulting in a 10% market-share.

Nakamichi Corporation of Japan is also a new entrant in the Indian audio market. The company has collaborated with Videocon for outsourcing its high-end range of audio products.

Specialized Players:

A segment often ignored in the Indian audio industry is the specialized product segment. This segment has players like Bose offering products to satisfy the Indian consumer's demand. These are high ticket and high value products with most of the demand being met mostly with imports of products. The products are often retailed through exclusive demonstration based retail stores. The Bose showroom at Cannaught Place, Delhi attracts crowds by throngs during demonstration times. There is significant demand for such high-end and high technology specialized brands among the Indian hi-society.

A sub-segment to the category of specialized products is high fidelity speakers systems. This category has players like Bose, BPL. These are high performance, high quality speakers known for their performance.

Outlook

India, being a country with a long running and cherished tradition in music, there is no reason why audio sales would not be encouraging. The action is expected to be in the fast growing high fidelity segment. With the new generation exposed to foreign music channels dedicated exclusively to all kinds of music, their preferences revolve around hi-tech systems with Dolby and surround sound.

Players like Sony, Aiwa, Panasonic and Philips have been quick to realize this and have invaded the market with products falling in the micro, mini and midi categories of the hi-fi segment. The strategy would be to come out with products which pleases the sensibilities of a discernable listener while not being too heavy on his pockets.

The future of the Indian Audio Industry is a move towards CD based systems at the cost of growth of Non CD based systems. There will be a spurt in introduction of software related audio products like systems with MP3 playback and internet downloads like the MP3 player, which will be available to the Indian consumer at affordable prices.

The industry will also see a flood of foreign consumer products in the Indian markets after the lifting of quantitative restrictions. This will result in increased competition and price reduction, which will lead to stiff margins.

Philips India Ltd

Executive Summary

PIL is a subsidiary of global electronics giant Philips and a leading player in the consumer electronics and electrical lighting segments backed by superior design and technology. It also makes domestic appliances, electronic components, telecom equipment etc. The parent company Koninklijke Philips Electronics N.V. (KPELV) has acquired 91.5% stake in the company through 2 open offers. The company proposes to delist the shares from the exchanges by making an open offer for the balance stake.

Entry barriers in the electronics industry are not very high. Opening up of the economy has attracted a host of global majors, who have launched the latest technology products. One of the most important characteristics of the Indian market is that it is highly price sensitive. Increased pressure due to competition and overzealous capacity creations has resulted in lower margins.

The Indian televisions market is valued at Rs39bn. Colour televisions remain the largest segment of the industry accounting for about 70% of the market. In value terms, the colour television (CTV) market did not grow at all, while black & white television (MTV) declined by 15%. The flat screen segment registered a strong growth on the low base. The CTV market in India is estimated at 5.4mn units in 2001 & is expected to touch 6mn units in 2002. Philips has improved its market share in the CTV segment to 5.2% in 2001 up from 3.7% a year ago. The company plans to cease marketing black & white televisions in the country in 2002, as a result of declining volume sales for the product in India.

PIL is a market leader in Rs16bn audio products market. The industry recorded a decline of 10% in 2001. The market for traditional analogue based products has been declining while CD based product sales has been growing. Competition from domestic and global players has intensified. Major players in the segment are Philips (37% market share), Sony (14.5%), Aiwa (7%) and Panasonic (6%). Radio sales are riding high on the back of the launch of several FM channels during 2002. However cheap (Rs60-Rs120) imported pen-sized radios are freely available in the market and may impact Philip's radio sales in the current year.

Electrical lighting business is characterized by low margins and stiff competition. Many of the organized sector manufacturers have launched specialized products to increase profitability. The domestic players have been facing intense competition from cheap imported Chinese products post removal of import restrictions. However Philip's lighting division recorded better growth than industry and improved its market share in all the segments during 2001.

Phillip's Electronics division sales grew by more than 20%, with significant growth in CTV (31%), Audio (27%) & DVD (30%) segments. Philip's recorded sales of Rs15.3bn during 2001, contributed largely by the Lighting and the Consumer Electronics businesses. The company made profits at the operating level. Net loss declined from Rs342mn in F12/00 to Rs212mn in F12/01. In Q1 2002, company's sales increased by 8% yoy from Rs3.5bn to Rs3.7bn. The company made a net profit of Rs191mn profit as against a loss of Rs64mn in Q1 2001. Operating profit increased from Rs144.8mn to Rs324.8mn registering a growth of 124% yoy during the quarter.

Background

In 1930, the Dutch electronics and electrical appliances giant, N.V.Philips Gloeilampenfabrieken, established a company in India to sell its radios. The company, which was named as Philips Electrical Co (India) Ltd., was later rechristened in 1956, as Philips India Pvt Ltd. PIL, today manufactures a wide range of consumer electronic items, electrical lighting, electronic components and industrial electronics. The support and access to technology from the Dutch parent has helped PIL launch into the competitive consumer appliances sector and grow strongly in the CTV and other video products segment.

The parent company reduced its stake to 40% in 1979 by offering to the existing shareholders (at 1:4), the employees and to the financial institutions, its shares at a premium of Rs4. Consequently the name was also changed to Pieco Electronics and Electricals Ltd. However the company continued to sell its then existing products under the brand name of Philips. In September 1993, N V Philips raised its stake back to 51% and changed the company's name to the original Philips India Ltd. The parent has acquired 91.5% stake in the company through 2 open offers in 2001. The company proposes to delist the shares from the exchanges by

making an open offer for the balance stake.

Subsidiary

Electric Lamps Manufacturers (India) Ltd is the fully owned subsidiary of Philips India Ltd. The parent is planning to consolidate its activities in India under Philips India. Accordingly three of the group's companies in the country-Punjab Anand Lamp Industries (PALI), Philips Glass India and Electric Lamp Manufacturers (India)-are proposed to be merged with Philips India.

Plant locations

PIL's TV factory is located at Salt Lake, Calcutta and its Audio systems plant is at Pimpri, Pune. Electrical lighting are manufactured at Kalwa in Thane. Picture tubes are made at Kota in Rajasthan, while components are made at Loni near Pune. Industrial equipment are also manufactured at its Pimpri plant. The company was selected as one of the Top 10 "Greenest" Companies in India under a survey carried out by Business Today & TERI(Tata Energy Research Institute). Manufacturing units of the company are ISO-14001 certified & three of them were re-certified during 2001.

Business

A major portion of Phillip's revenue (86%) is derived from consumer electronics and electrical lighting divisions. Domestic appliances, electronic components, industrial electronics etc contribute the rest.

Division	Rs mn	% contribution to Turnover
Lighting	6812	45
Consumer Electronics	6213	41
Domestic Appliances & Personal Care	661	4
Semiconductors & Components	146	1
Enabling Technologies Group	471	3
Others	952	6
Total sales	15255	

Audio systems: PIL is the domestic leader in audio systems. Phillip's integrated operations make it a low cost producer. It manufactures the entire range – from pocket radios to Hi-Fi CD systems with VCD and MP3 playback capabilities. Phillip's market share in the audio segment increased from 27% in December 2000 to 37% in December 2001. CD based products witnessed rapid growth in 2001. However, the decline in audio analogue products was not fully compensated by the increase in CD based audio products. Philips launched FW V520 Mini Hi-Fi MP3 CD Playback compatible System, Lifestyle Micro Music System MC 70 and Light Weight Headphones Range during the year. Sizable market share gains were achieved in the Mini Systems and Portable Audio Systems category. Mini-systems with VCD now constitute about 30% of the audio market. Philips has a 33% share in this segment as against 8.5% a year ago.

Television sets are sold under the Powervision series of 14", 20", 21" 25" and 29" sizes and the Matchline series of 29" and 32". Widescreen 32" CTV is the product from its international range with pro-logic controls and Dolby sound system. Philips increased its market share in CTV from 3.7% in December 2000 to 5.2% in December 2001. The company revamped the product portfolio according to market requirements, strengthening its presence in the 14" and 20" segments. Appropriate price positioning and integrated trade & consumer marketing programs also enabled the company to improve market share. Philips launched a 32" High Definition Plasma Flat TV, a 15" LCD TV PC Monitor with PIP (Picture-inPicture), a 21PT3462D CTV, a 43" rear-projection TV, Powervision 29PT 6961 DVD TV with integrated DVD system and DVD Recorder DVDR1000 during 2001. Philips has emerged as one of the leaders in the large screen and in the flat TV segments. During 2002, the company expects that the scheduled soccer World Cup would provide a fillip to the CTV market. The Company expects to generate an additional revenue of at least Rs30crore from higher television sales during this period.

Lighting (45%)

Philips lighting division recorded better than market growth in most segments such as GLS, Fluorescent and High Intensity Discharge (HID) lamps, Luminaires and Lighting Electronics segment. However, sales in the high value CFL segment was adversely affected by cheap imports of compact fluorescent lamps. In 2001, several state-of-the-art energy saving lamps were successfully launched in the market namely, 'Genie' & 'Ambience' lamps in the CFL category. Philip's won one of the largest orders by any lighting company in India - the city lighting project at Hyderabad. This project has been executed by the Division from concept to commissioning. Other high profile projects executed by Philips during the year were : The Pondicherry Cricket stadium, the Guru Nanak Stadium(Ludhiyana), the Ramoji Rao Film City(Hyderabad), the Road Lighting Project(Navi Mumbai) & Dwarka City in Delhi. Philips is the preferred supplier of lighting products to all Infosys facilities across the country and has received the Best Supplier Partner trophy. Continuous measures to ensure cost leadership and an upgraded product portfolio has helped the company to maintain its' leadership position in the industry.

Others

Domestic appliances and personal care products division was started in 1993. Philips has a strong market position in key categories like Mixer Grinder, Toasters, Irons, beauty Care. In the year 2001, the performance of these business was disappointing. The company expects that the business environment is likely to remain difficult in 2002. Price based competition is likely to intensify in the market for Irons, Mixer Grinders & Toasters

Semiconductors

The user industries for semiconductors ie Consumer Electronics, Communication, Computing, Identification & Industrial electronics experienced slowdown in 2001. Only Consumer Electronics improved during the latter half. Yet the company's semiconductors division recorded a volume growth of 25%. However prices came under severe pressure resulting in price erosion of over 30%. Semiconductor sales therefore declined from Rs200mn in F12/00 to Rs146mn in F12/01.

Restructuring

PIL's shareholding in Punjab Anand Lamps Industries Ltd was disinvested to the parent company for a consideration of Rs205mn at a profit of Rs139mn. VRS schemes were introduced at the Commercial establishments in Chennai, Delhi and Mumbai, at the Consumer Electronics factory in Pune and at the Lamp factory at Kalwa. About 650 employees took early retirement under the various schemes. The total number of employees at the end of the year was 2410 as against 3255 employees at the end of 2001. The parent company Koninklijke Philips Electronics N.V. (KPENV) has acquired 91.5% stake in the company through 2 open offers.

Profit & loss account (Rs mn)

Period ended	12/98	12/99	12/00	12/01
No. of months	12	12	12	12
Gross Sales	16,633.5	17,288.9	14,930.9	15,255.4
Excise Duty	(344.3)	(591.7)	(409.0)	(580.0)
Net sales	16,289.2	16,697.2	14,521.9	14,675.4
Other income	128.9	173.2	152.7	190.1
Total income	16,418.0	16,870.3	14,674.6	14,865.5
Raw materials	3,104.5	3,010.0	1,828.8	2,449.5
Stock adjustment (Inc)/ Dec	(152.3)	278.0	(204.9)	376.9
Purchase of finished goods	8,798.0	9,103.4	9,067.0	7,894.8
Conveyance, travelling and living expenses	209.4	224.6	223.3	206.5
Cost of material	11,959.6	12,616.0	10,914.3	10,927.7
Employee cost	1,014.8	1,110.0	1,038.0	1,035.9
Power & fuel	200.7	176.4	134.4	92.0
Advertising/ promotion/ public	520.2	477.1	97.2	100.3
Freight & forwarding	321.6	346.9	327.6	288.7
Other expenses	1,217.5	1,166.8	1,670.3	1,615.0
Cost of sales	15,234.4	15,893.3	14,181.7	14,059.6
PBIDT	1,183.6	977.0	492.9	805.9
Interest & finance charges	349.6	325.3	238.2	158.9
PBDT	834.0	651.7	254.7	647.0
Depreciation	326.7	338.2	293.3	260.2
PBT	507.3	313.5	(38.5)	386.8
Provision for taxation	80.3	31.0	(53.1)	(189.5)
Extraordinary items/ Prior year adj.	(307.2)	(1.2)	(356.1)	(787.9)
Adjusted PAT	119.8	281.4	(341.5)	(211.6)
Dividend payout	75.1	125.2	-	-
Forex inflow	438.0	463.7	415.7	736.3
Forex outflow	1,469.5	1,442.9	997.4	1,130.8
Book value of quoted investments	73.6	66.6	66.6	-
Market value of quoted investments	133.5	272.4	197.3	-
Contingent liabilities	232.7	137.4	98.1	91.6

Balance sheet (Rs mn)

Period ended	12/98	12/99	12/00	12/01
No. of months	12	12	12	12
SOURCES OF FUNDS				
Equity capital	455.3	455.3	455.3	455.3
Capital reserve	137.4	106.7	103.1	99.6
Share premium account	395.8	395.6	395.6	395.6
Profit & Loss/ General reserve	742.6	871.9	555.5	622.0
Other reserves	167.9	193.6	168.5	-
<i>Reserves and surplus</i>	<i>1,443.8</i>	<i>1,567.8</i>	<i>1,222.7</i>	<i>1,117.2</i>
<i>Net worth</i>	<i>1,899.1</i>	<i>2,023.1</i>	<i>1,678.1</i>	<i>1,572.5</i>
Secured loans	1,056.9	1,023.4	860.5	463.3
Unsecured loans	902.1	499.9	417.0	197.5
<i>Total debt</i>	<i>1,958.9</i>	<i>1,523.3</i>	<i>1,277.5</i>	<i>660.8</i>
Capital employed	3,858.0	3,546.4	2,955.6	2,233.3
APPLICATION OF FUNDS				
Gross block	4,285.8	3,410.5	3,633.3	3,446.3
Accumulated depreciation	(2,424.8)	(1,782.6)	(1,937.1)	(2,002.3)
Capital work in progress	57.7	110.7	40.5	18.3
<i>Total fixed assets</i>	<i>1,918.7</i>	<i>1,738.6</i>	<i>1,736.7</i>	<i>1,462.4</i>
<i>Investments</i>	<i>152.8</i>	<i>135.6</i>	<i>135.6</i>	<i>160.9</i>
Inventories	1,822.9	1,360.9	1,597.2	1,003.8
Sundry debtors	1,915.0	1,757.6	1,720.8	1,605.1
Cash & bank balance	563.6	997.4	98.8	85.6
Total loans & advances	960.9	880.3	751.3	570.4
Sundry creditors/ Acceptances	(2,962.8)	(2,840.1)	(2,743.2)	(2,694.1)
Other liabilities	(92.1)	(110.5)	(70.0)	216.2
Provisions	(421.0)	(373.3)	(271.5)	(177.1)
<i>Net current assets</i>	<i>1,786.6</i>	<i>1,672.2</i>	<i>1,083.3</i>	<i>610.0</i>
Capital deployed	3,858.0	3,546.4	2,955.6	2,233.3

Cash flow statement (Rs mn)

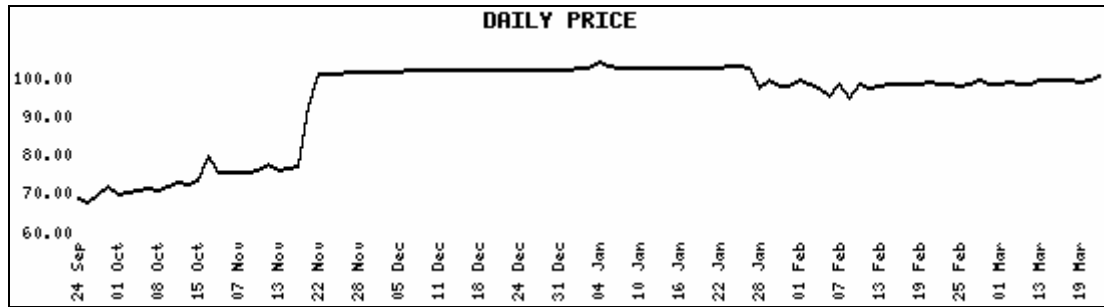
Period ended	12/98	12/99	12/00	12/01
No. of months	12	12	12	12
Pre tax income from operation	378.4	140.4	(191.2)	196.6
Depreciation	326.7	338.2	293.3	260.2
Other income/prior period adj	(178.4)	172.0	(203.4)	(597.8)
Tax	(80.3)	(31.0)	53.1	189.5
Cash profits	446.5	619.6	(48.3)	48.6
(Inc)/Dec in trade working capital				
-Inventories	(235.3)	462.1	(236.3)	593.4
-Sundry debtors	276.0	157.3	36.9	115.7
-Sundry creditors	(96.2)	(122.7)	(96.9)	(49.1)
-Others	(68.5)	(29.2)	(142.3)	(380.7)
Net adjustment	(124.1)	467.5	(438.6)	279.3
Operating activities	322.4	1,087.1	(486.9)	327.9
(Inc)/Dec in fixed assets	(138.3)	(158.1)	(291.4)	14.0
(Inc)/Dec in investments	11.7	17.2	-	(25.3)
(Inc)/Dec in loans & advances	(279.7)	80.6	129.0	180.9
Investing activities	(406.3)	(60.3)	(162.4)	169.7
Inc/(Dec) in debt	273.3	(435.7)	(245.7)	(616.7)
Inc/(Dec) in equity/premium	(0.2)	(0.2)	-	-
Change in capital reserves	(4.2)	(30.8)	(3.6)	(3.5)
Direct add/(red) to reserves spl item	0.0	(1.1)	0.0	109.6
Dividends	(75.1)	(125.2)	-	-
Financing activities	193.8	(593.0)	(249.3)	(510.7)
Cash generated/(utilised)	109.8	433.7	(898.6)	(13.1)
Cash at start of the year	453.8	563.6	997.4	98.8
Cash at end of the year	563.6	997.4	98.8	85.6

Annexure I

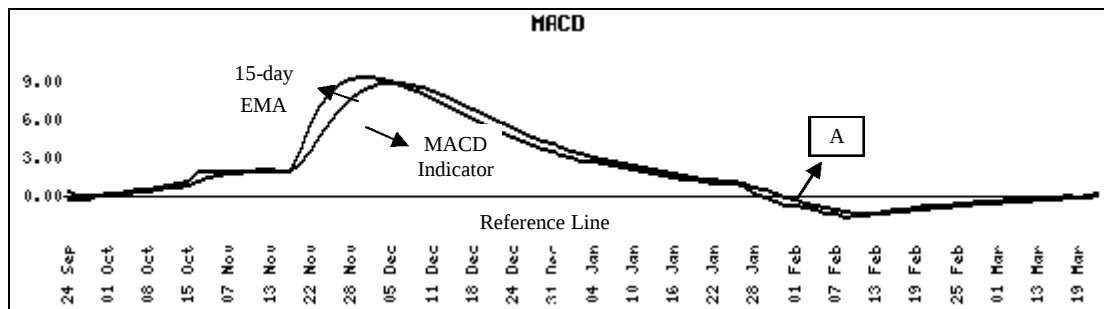
End of Month	Share price of Philips (Rs.)	S&P CNX Nifty
April 2001	87.60	1067.60
May 2001	66.50	967.60
June 2001	64.20	1073.70
July 2001	58.30	959.70
August 2001	55.55	1026.45
September 2001	57.65	925.40
October 2001	90.15	851.05
November 2001	92.30	920.90
December 2001	86.70	912.85
January 2002	83.70	981.20
February 2002	74.65	952.30
March 2002	59.70	754.20

Annexure II

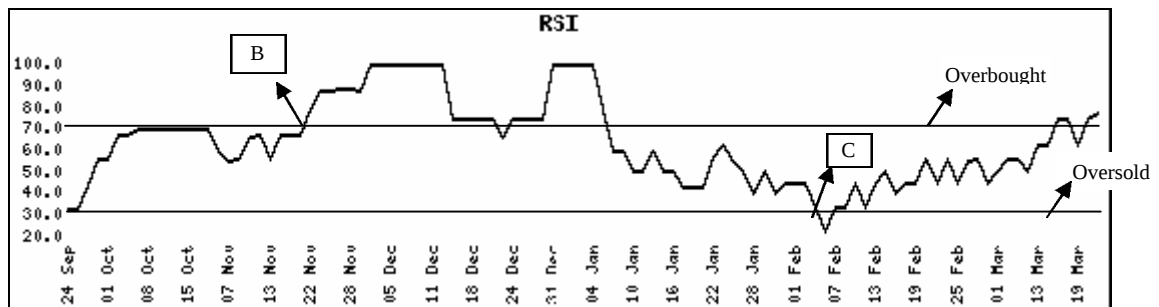
a.



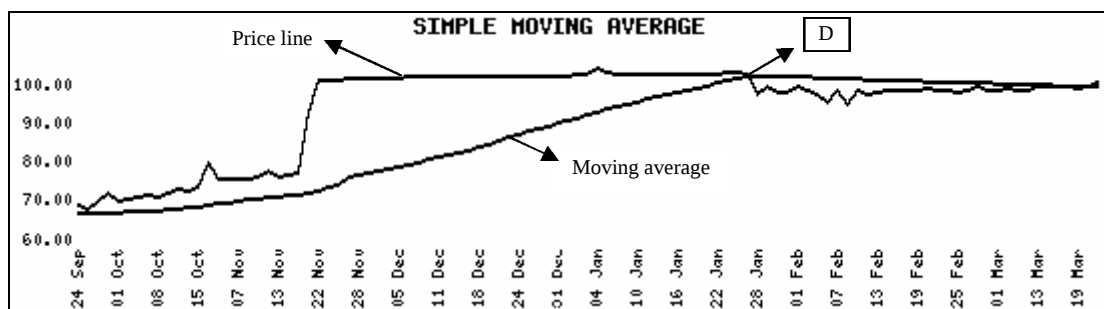
b.



c.



d.



END OF PART D

Part E : Caselets (50 Points)

- This part consists of questions with serial number 7 - 13.
- Answer **all** questions.
- Points are indicated against each question.
- Do not spend more than 80 - 90 minutes on Part E.

Caselet 1

Read the following caselet carefully and answer the following questions:

7. According to the caselet, investors should look for, along with other features, companies that hold huge cash reserves. What do you think is the justification for this? Explain.

(6 points)
8. According to the caselet, companies that do not spend enough on IT are traded at lower PE ratios. What is the reason? Explain.

(5 points)
9. Why should the investors not try to get back the profits they lost in the 2000 mayhem? How can they profit by investing again now?

(5 points)

After the tech bubble investors got wary of the tech stocks, it may take one more decade when the NASDAQ would reach to 5000 again. However, if the investors still want to make money from the tech stocks, they can still do that. The bottomline is that they should not aim at getting back the profits that have lost in the 2000 mayhem. They should accept two truths – Firstly, the sector is severely battered and a stock whose revival is dependent on the comeback of the sector will be in doldrums for years. And secondly, those companies would survive which have solid business models and are sheltered from the general technology spending cycle.

The reasons that NASDAQ may not rise for a decade are: The technology spending in year 2000 was about 48 percent and now the CEOs are not ready to invest more capital on technology. According to a Merrill Lynch survey of Chief Information Officers, 56 percent of IT officers expect that technology spending would not recover until 2003. The speculative booms take a long period to unwind. For example, the oil stocks that rose by 381 percent in the year 1980 then remained stagnant for a decade. The Japanese stock market, which almost tripled during the 1980s after its collapse, remained stagnant for years and now trades at 70 percent below its peak. The value of gold that was \$850 per ounce in 1980s came down drastically in 1990 before going up again. It currently trades at \$305 per ounce. The sector is maturing- the Cell phones and PCs that played a major part in the bull run of the past 18 years is slowing down.

The future technology spending would be cyclical as companies that spent on IT grew at 12.6 percent till 2000, though the corporate profit were flat. But IT spending now is more linked with corporate profits and companies who are not in a position to spend on technology would command lower PE ratios.

Even at the present lows, many of the NASDAQ stocks are overvalued. Investors should look for those companies that have strong competitive positions in the niche segments such as the security, enterprise software or web services with good future earnings reliability. The companies should also have huge cash reserves. The above stated segments are expected to grow at 22 percent annually through 2004, as BPO services are cost effective yielding 15 to 50 percent less. The BPO processes are also not linked to vagaries of business cycles. Two companies that qualify the above listed characteristics are the Affiliated Computer Services and UTStarcom. While the former is a pure Business Process Outsourcing, the latter provides wireless and fiber optic infrastructure equipment and handsets to China.

Caselet 2

Read the following caselet carefully and answer the following questions:

10. The caselet mentions about the relationship between the interest rates, profits, and the stock prices. Justify the relationship given in the caselet.

(8 points)

11. In spite of the apparent justification offered in the caselet, is it wise to think that stock prices rise when interest rates fall and fall when the interest rates rise? Justify.

(6 points)

Of late the stock market investors are angry and discouraged. Stocks are at their rock bottom levels from their June 1998 highs, as measured by the S&P 500 index, and every optimistic investor can see nothing but gloom. Most of the analysts are of the opinion that, even at the current depressed levels, the market is still overvalued and has to further fall before it can rise again.

The S&P 500 index is now having a price/earnings ratio at a record level of 40 plus; more than twice its historical average. There are several things that are seriously wrong with PE as a forecasting tool. Once these flaws are accounted for, one can know that the market is not overvalued and a more rational method suggests that stock valuations are normal. And stocks don't have to fall to look attractive and are perhaps attractive right now.

The first problem with the S&P P/E number is conceptual as it is based on 12 months of trailing earnings. Using it to predict the future of the index is as foolish as predicting tomorrow's weather on the basis of yesterday's. The information that one gets by dividing the current price of the S&P 500 by last year's earnings is the last year performance.

The one positive aspect about next year is that earnings would be better than expected. The recession of 2001 may have ended with all economic indicators pointing towards expansion, and hence corporate earnings will probably improve. According to Blue Chip Consensus, the corporate earnings will be up 4.1 percent for 2002, and 9.7 percent for 2003.

Comparing the market's current P/E with its long-term average is erroneous as the P/E fails to consider the unusually low interest rate environment. Financial theory touts that the current price of equities is dependent on the present value of future earnings and dividends. Therefore, the expected rate of interest is crucial as the lower the rate, the higher the stock price. Rates are unusually low now with the ten-year Treasury bond yielding just over five percent. Once adjustment is made for the likely rise in earnings and for current low interest rates, the case of wild overvaluation collapses. Before the 1987 crash, it signaled that the market was overvalued by a record 40 percent, and before the last tech bubble in 2000, it showed the market was overvalued by 35 percent.

Today the S&P 500, at its current level of around 1,100 is not significantly overvalued. If corporate profits rise by five percent this year, and the ten-year Treasury yield climbs to 5.5 percent, then the stocks are overvalued by 10 percent. If in the next year earnings grow at 10 percent and the Treasury yield falls back to 5 percent the S&P 500 is undervalued by 10 percent. This is a cheer up news to stock investors.

Caselet 3

Read the following caselet carefully and answer the following questions:

12. In comparison with ordinary corporate bonds, are securitized instruments a better investment opportunity? Explain.

(7 points)

13. What are the problems associated with investing in unrated instruments? What factors may induce investors into investing in unrated bonds? Explain.

(6 points)

14. What are the tax related advantages and disadvantages of investing in corporate bonds? Explain.

(7 points)

To develop corporate bond market, there is a need to increase the supply of high quality paper, creation of adequate institutional investor base, ensuring a variety of instruments of differing maturities and supporting infrastructure, etc. An efficient legal system is also an important infrastructure for deep and liquid bond markets. Among legal reforms, bankruptcy laws to seize collaterals are particularly important.

There is need to develop securitization market as a related issue. Securitization acts as a risk transfer mechanism and works to the advantage of both banks and investors. The RBI's role in development of corporate bond market is indirect and governed by its interest in monetary policy transmission, government securities and stability as well as efficiency in financial sector as a whole.

Corporate debt market forms a very insignificant part in Indian debt market as government securities market accounts for 75 percent of the outstanding stock and nearly 95 percent of the volumes traded in the secondary market. About 90 percent of the corporate debt is privately placed in which 58 percent of the issuances are by Financial Institutions (FIs) and banks and about 26 percent represents issues of public sector undertakings and Central/State government guaranteed bonds. Two-thirds of the total issues are accounted for by the public sector and 20 percent is by the private non-financial sector.

Most issuers in the corporate debt market are AAA or AA rated and about 10 percent are unrated. The investors are mostly institutions with very few retail investors. Transparency is limited in both the primary and secondary markets, liquidity is poor and many bonds are held till redemption. The legal recourse in case of non-payment of interest and principal is complicated and bankruptcy laws offer little comfort. The legal and regulatory requirements, accounting and auditing standards for issuers and the infrastructure for trading, clearing and settlement need to be developed much more in case the market has to become deep and liquid. As the non-transparent practices in this market is a matter of concern, RBI had issued guidelines in June 2001 regarding the due diligence to be undertaken, the disclosures to be obtained and the credit risk analysis to be made in regard to privately placed investments especially for unrated instruments.

END OF PART E

END OF QUESTION PAPER

Suggested Answers

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Part D : Case Study

1. Threat of Entry:

- With the market tending towards technologically superior products, entry of more and more players with superior technologies appears likely, as also introduction of new products by the existing players

Bargaining Power of Suppliers:

- All the major players in this industry are manufacturers, not resellers. Hence, the bargaining power of suppliers could be low.

Bargaining Power of Buyers:

- The buyers in this industry being small in terms of quantity as well as value, they do not have much bargaining power.

Threat of Substitutes:

- As of now, there are no strong substitutes for all audio products. However, the current trend is to improve the audio quality of computers through better quality software. If this trend continues, this may result in substitution to some extent.

Intensity of Rivalry:

- Due to stagnant growth in the low end segments like radio and ordinary audio systems, intensity of rivalry among the players focusing on these segments may increase
- The market is highly fragmented in the lower end segments such as radios, which makes the intensity of rivalry high
- The intensity of rivalry may also get intensified due to the efforts of some players like Aiwa to commoditize the audio market
- In this industry, there are quite a few strong players, with enough financial strength. If they get into a price war or try to encroach into each other's niches, intensity of rivalry may increase.

2. Strengths:

- The biggest strength of the company is its parent, which is a major player in the global audio industry.
- The company is at the cutting edge of research in audio systems and need not depend on others for new technologies, unlike some of the other Indian players.
- The company has a strong presence in the lower end of the audio sector, particularly in audios. It also has a good brand name.
- Its costs are low, due to its operations being integrated.
- The company is well diversified and is not overly dependent on audio products.

Weaknesses:

- The industry is witnessing a shift from the lower end, in which this company is concentrated. The company does not appear to be successful in gaining enough market share in the higher end, which is currently dominated by others.

Opportunities:

- The company introduced quite a few new products in the higher end and their success can contribute substantially to the company's revenues in future.

Threats:

- The other businesses of the company, like lighting may take a beating from cheaper imports.
From the above analysis, it can be said that the company appears to be having quite a few strengths and hence, it can be considered for investment. However, the profitability and the past returns from the stock present a different picture.

3.

Total Assets	1998	1999	2000	2001
Fixed Assets	1918.7	1738.6	1736.7	1462.4
Investments	152.8	135.6	135.6	160.9
Inventories	1822.9	1360.9	1597.2	1003.8
Sundry Debtors	1915	1757.6	1720.8	1650.1
Cash and Bank Balance	563.6	997.4	98.8	85.6
Loans and Advances	960.9	880.3	751.3	570.4
	7333.9	6870.4	6040.4	4933.2
Networth	1899.1	2023.1	1678.1	1572.5
Net Sales	16289.2	16697.2	14521.9	14675.4
PBT	507.3	313.5	-38.5	386.8
Adj PAT	119.8	281.4	-341.5	-211.6
PAT	427	282.6	14.6	576.3
ROE Analysis				
PBT/Sales	0.031143	0.018776	-0.00265	0.026357
PAT / PBT	0.841711	0.901435	-0.37922	1.489917
Adj. PAT / PBT	0.236152	0.897608	8.87013	-0.54705
Net Sales / Total Assets	2.221083	2.43031	2.404129	2.974824
Tot Assets / Net Worth	3.861777	3.395976	3.599547	3.13717
ROE	0.224841	0.139689	0.0087	0.366486
ROE with adj. PAT	0.063082	0.139096	(-0.20341)	-0.13456

COMMENTS

The ROE of the company has been declining steadily in the past few years. This is true based on both the reported PAT and the PAT before adjustments. In the latter case, however, the ROE has increased in the last year, that is, 2001. The reason for the fall in the profitability of the company appears to be a consistent fall in the pre-tax profit margin. The turnover ratio has been showing an uptrend, indicating that the efficiency of utilization of assets has been consistent. If we consider the PAT after adjustment of extraordinary items, we find a drastic fall. After a healthy increase from around 6% to around 14% by 1999, ROE fell to minus 20%. It has later recovered to minus 13%. However, in the absence of any information on the nature of the extraordinary items, it is not possible to comment further on this aspect.

4. a.

Month	Return from Philips (%)	Return from Index (%)
May 2001	-24.09	-9.37
June 2001	-3.46	10.97
July 2001	-9.19	-10.62
August 2001	-4.72	6.96
September 2001	3.78	-9.84
October 2001	56.37	-8.03
November 2001	2.38	8.21
December 2001	-6.07	-0.87
January 2002	-3.46	7.49
February 2002	-10.81	-2.95
March 2002	-20.03	-20.80

The standard deviation of the return of Philips stock = 21.05%

Mean of return = -1.75%

Probability that the return will be between zero and 5% can be calculated as follows:

$$\frac{0 - (-1.75)}{21.05} < Z < \frac{5 - (-1.75)}{21.05}$$

$$\text{or } \frac{1.75}{21.05} < Z < \frac{6.75}{21.05}$$

$$\text{or } 0.0831 < Z < 0.3207$$

from the normal distribution table, the area for

$$0.3207 \rightarrow 0.1255$$

$$0.0831 \rightarrow 0.0319$$

$$Z = 0.1255 - 0.0319 = 0.0936 \text{ or } 9.36\%$$

- b. Returns from Philips and CNX 500 can be regressed to estimate the beta of Philips.

Returns from Philips (Y)	Returns from CNX 500 (X)	$Y - \bar{Y}$	$X - \bar{X}$	$(Y - \bar{Y})^2$	$(X - \bar{X})^2$	$(Y - \bar{Y})(X - \bar{X})$
-24.09	-9.37	-22.337	-6.75	498.94	45.53	150.71
-3.46	10.97	-1.707	13.59	2.91	184.76	-23.20
-9.19	-10.62	-7.437	-8.00	55.31	63.96	59.48
-4.72	6.96	-2.967	9.58	8.80	91.83	-28.43
3.78	-9.84	5.533	-7.22	30.61	52.09	-39.93
56.37	-8.03	58.123	-5.41	3378.28	29.24	-314.29
2.38	8.21	4.133	10.83	17.08	117.35	44.77
-6.07	-0.87	-4.317	1.75	18.64	3.07	-7.57
-3.46	7.49	-1.707	10.11	2.91	102.27	-17.26
-10.81	-2.95	-9.057	-0.33	82.03	0.11	2.96
-20.03	-20.80	-18.277	-18.18	334.05	330.41	332.23
-19.30	-28.85			4429.57	1020.61	159.47

$$\bar{Y} = \frac{\Sigma Y}{n} = \frac{-19.30}{11} = -1.75\%$$

$$\bar{X} = \frac{\Sigma X}{n} = \frac{-28.85}{11} = -2.62\%$$

$$\sigma_y^2 = \frac{\Sigma(Y - \bar{Y})^2}{n-1} = \frac{4429.57}{10} = 442.96(\%)^2$$

$$\sigma_x^2 = \frac{\Sigma(X - \bar{X})^2}{n-1} = \frac{1020.61}{10} = 102.06(\%)^2$$

$$\text{Cov}_{xy} = \frac{\Sigma(X - \bar{X})(Y - \bar{Y})}{n-1} = \frac{159.47}{10} = 15.95(\%)^2$$

$$\text{Beta} = \frac{15.95}{102.06} = 0.1563 = 0.16$$

$$\text{Total systematic risk} = \beta^2 \sigma_m^2 = 0.16 \times 0.16 \times 102.02 = 2.612(\%)^2$$

$$\text{Total risk} = \sigma_i^2 = 442.96(\%)^2$$

$$\begin{aligned} \text{Unsystematic risk} &= 442.96 - 2.612 \\ &= 440.348(\%)^2 \end{aligned}$$

$$\text{Proportion of unsystematic risk} = \frac{440.348}{442.96} = 0.99 = 99\%$$

The risk is almost entirely unsystematic. Hence, the stock is not suitable for the investor.

5. A: The MACD indicator crosses the reference line from above. Hence it is an indication to sell.
 B: The RSI crosses the overbought position line from below. So it is an indication to sell.
 C: The RSI crosses the oversold position line from above. This is an indication to sell.
 D: The simple moving average has been rising until point D. Hence a cross over of the price line from above indicates only a secondary reaction and not a downward trend. So, the stock may be bought at lower levels.

6. Beta of Philips, as calculated in Question 4 = 0.16
 Mean return from Philips stock = -1.75%
 Mean return from S&P CNX 500 = -2.62%

If the characteristic line is $\alpha + \beta R_m$

$$\begin{aligned}\alpha &= 1.75 - (-2.62 \times 0.16) \\ &= -1.33\%\end{aligned}$$

Hence, the characteristic line of Philips is

$$R_p = -1.33 + 0.16 R_m$$

Month	Actual Return (%)	Expected Return (%)	Return from Market (%)	Abnormal Return (%)
May	50.42	-0.37	6.00	50.79
June	-15.41	-2.65	-8.24	-12.76
July	-11.10	-1.97	-3.97	-9.13
August	20.45	-1.62	-1.84	22.07
				50.97

As the total abnormal return is much higher than zero, it can be said that the market does not exhibit the semi-strong form of efficiency.

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Part E: Caselets

Caselet 1

7. The caselet basically looks at stocks relating to the technology sector. This sector is currently in deep trouble. The demand for the products and services of this sector may not surge high enough to make them earn good profits very soon. Hence, the competitive rivalry in the industry may intensify and call for large expenditures on promotion or further investments to achieve economies of scale or funds to acquire other players. Thus, firms that hold large amounts of cash are more likely to be successful than the ones that do not. Another factor that works in their favor is the current recession. Only firms with sufficient cash may be able to outlive the recession and hope to see good times ahead.
8. According to the caselet, companies that have been spending heavily on IT in the past few years have been performing financially better than those that did not, in spite of the overall profits of the corporate sector being stagnant. Therefore investors may assume that the same holds true in the future too, thus pushing up the prices of such companies.
9. It may never be possible to earn back the profits that have been lost in 2000 because the dizzy high valuations of the tech stocks that were seen during that time may never be seen again. The steep rise of share prices in the preceding periods were due to expectations rather than fundamentals (as is now proved). However, investors may still be able to identify stocks that are valued fairly now and invest in them, with eventual gains. To identify such stocks, investors should look at those that are operating in niche areas, and promising sectors and are valued fairly at current levels.

Caselet 2

10. The relationship between profits and stock prices is straight forward – higher the profits, higher the stock prices. With interest rates, the relationship is inverse. Higher the interest rates, the stock prices should be lower, as the stock prices are viewed as the present values of the expected future dividends. When interest rates rise, the present values fall, bringing down the stock prices. If the interest rates increase more than the profits, the net impact on stock prices is negative, while it is positive if profits rise more than the interest rates. For a given level of stock prices, if interest rates increase more than the profits, the stocks may turn out to be overvalued and vice versa.
11. According to a study on the US stock markets, stock prices increased in 58 years in the past, out of 87 years, while interest rates fell in only 31 of the years. Equity indices have increased in 22 years out of the 31 years. During the years 1994 and 1995, when the Fed raised the interest rates six times, the stock markets did not dip – they were booming. This can also be explained, as tightening of interest rates may be resorted to when the economy is booming, while interest rates are lowered in a recession – when the economy is booming, stocks are bound to do well and fall when the economy is in recession.

Caselet 3

12. Securitized instruments are issued on the basis of some assets vested in a SPV and the cash flows from the assets are first applied to repayment of the securities issued. Hence, the risk of default on the instruments may be less compared to the normal corporate debt instruments. This advantage of securitized instruments is more pronounced when compared to unsecured corporate bonds. Due to the relatively low default risk, securitized instruments generally carry a higher credit rating when compared to the normal debt instruments.

Due to their higher safety, securitized instruments generally carry a lower coupon compared to other bonds issued by the company. Hence, their yields are lower.

Securitized instruments are sometimes subject to prepayment risk. If the underlying assets are loans and the borrowers of those loans decide to prepay the loans, a part of the bonds may be prepaid. This makes the investment horizon uncertain for the investor and adds to the reinvestment risk. This, however, holds true only when compared with corporate bonds that do not carry call provisions.

13. Credit rating is an opinion expressed by the rating institution on the credit quality of the issuer, based on its study of the relevant information. This opinion carries a lot of weight in the view of the investors, due to the credibility of the institution and the inability of the investors to carry out the exercise on their own. When an issuance is not rated, there is no opinion to depend on and hence the investor has to be on his own to decide on the credit quality or the investment worthiness of the company. This problem arises not only at the stage of the initial investment, but also during the stage of monitoring during the life of the investment or the investment horizon.

Issuers have to offer higher yields on unrated instruments to induce the investors. Investors who are willing to bear higher risk for the higher return go for unrated bonds.

14. a. According to Section 10(15), interest earned from the following is exempt from tax:
- Income by way of interest, premium on redemption or other payment on notified bonds, securities, or certificates issued by the Government.
 - Interest on Capital investment bonds
 - Interest on National relief bonds.
 - Interest payable by a Schedule banks on deposits in foreign currency.
 - Interest received by a non resident Indian from Notified bonds.
- b. Under section 80L following debentures are eligible for:
- Notified bonds issued by Public sector companies
 - Debentures issued by State Electricity Boards
 - 12% debentures issued by the Agro Industries Corporation
 - Debentures issued by a Cooperative society, including public sector companies.

From the Assessment year 2003-04, dividends from any Indian company are also eligible for deduction under this section.

c. Rebate under Section 88

Tax rebate under section 88 is available to an individual and Hindu Undivided Family.

Debentures of, and equity shares in , a public company engaged in infrastructure including power sector enjoy rebate under sec 88.