

Question Paper

Portfolio Management and Mutual Funds - II (252): January 2005

Section D : Case Study (50 Marks)

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

Case Study*

Read the case carefully and answer the following questions:

1. Identify and describe an appropriate set of investment objectives and investment constraints for Mr. Vyas. Also, write an investment policy statement based on these objectives and constraints.

(10 marks) [< Answer >](#)
2. The allocation changes in the PE ratio fund are effected at the end of every month. Relevant data of benchmark index is given in the **Appendix I**. Ignoring cost of rebalancing and with the help of Investment pattern of the PE ratio fund you are **required** to
 - a. Calculate the yield on an Index fund based on the market index during last one-year period (Jan 2004 -December 2004).
 - b. Calculate the yield of the PE ratio fund assuming it is under operation from 01.01. 2004.

(3 + 9 = 12 marks) [< Answer >](#)
3. Calculate downside volatility (–ve semi deviation) of an Index fund return based on benchmark index during January 2004 - December 2004? Explain the significance of this value in assessing the risk attached to the investment in Index fund.

(5 + 3 = 8 marks) [< Answer >](#)
4. Mr. Dixit has transferred Rs.10,000 every month from Pioneer Income Fund (PIF) to Pioneer Blue Chip Fund (PBCF) from March 2004 to June 2004 and after that, he has withdrawn Rs.10,000 per month from PBCF during July 2004 to December 2004. Calculate the closing balance of number of units present in both the schemes for Mr. Dixit. The amount of exit load and reinvestment load charged by both the schemes is 0.74% and 0.65% respectively (Ignore dividend on both the funds).

(8marks) [< Answer >](#)
5. Briefly describe the merits and demerits of
 - a. PE Ratio Fund
 - b. Fund of Funds.

(5 + 7 = 12 marks) [< Answer >](#)

Mr. Avinash Vyas is an engineer and runs his own consultancy firm. He is 40 years old. His wife Madhavi is a gynecologist. Mr. Vyas has only one son, Lakshit, and his age is 10 years. Mr. Vyas's parents are also staying with them. His father being 75 years old needs regular medical treatment. Mr. Vyas is planning to send his son to a boarding school after one year. Presently, Mr. Vyas along with his family members is staying in a rented house. Mr. Vyas has a total cash surplus of Rs.12 lakhs. Mr. Vishaal Dixit, a close friend of Mr. Vyas has already invested in PBCF and PIF and therefore, suggested him to invest in Pioneer Low Volatility Equity Fund. He has invested Rs.1,00,000 each in PBCF and PIF in the month of January 2004. He has also advised him to consider the benefits of SWP (Systematic Withdrawal Plan) and STP (Systematic Transfer Plan). Mr. Vyas is also considering investing in index funds and therefore wants to assess the volatility attached to the benchmark market index.

Pioneer Low Volatility Equity Fund

(Open – end Fund Of Funds)

HIGHLIGHTS

- An open-ended Fund-of-Funds scheme sponsored by the Pioneer Group, one of the world's largest investment management companies, which has over 50 years of experience in international investment management and manages US\$281.90 billion in assets (approximately Rs.13,25,776 crores).
- The primary objective of the scheme is to provide long-term capital appreciation with relatively lower volatility through a dynamically balanced portfolio of equity and income funds. The equity allocation (i.e. the allocation to the diversified equity fund) will be determined based on the month-end weighted average PE ratio of the benchmark index.
- The Scheme has an in-built buy / sell mechanism based on stock market valuations. As the stock markets get over valued (as represented by high PE ratio of the Benchmark index), the scheme reduces its equity allocation and vice versa.
- The scheme offers Dividend and Growth Options
- The NAV of the Scheme will be calculated for all business days and the full portfolio of investments will be disclosed half-yearly.

SCHEME SPECIFIC RISK FACTORS AND SPECIAL CONSIDERATION

- The scheme will invest primarily in a combination of Pioneer India's equity and income fund:
Equity Fund: Pioneer Blue Chip Fund (PBCF)
Income Fund: Pioneer Income Fund (PIF)
Hence, movements in the Net Asset Value (NAV) of the above mentioned schemes would affect the performance of Pioneer Low Volatility Equity Fund.
- Any change in the investment policies or fundamental attributes of PBCF and PIF will affect the performance of the scheme.
- At the peak of a bull market, a portfolio balanced on PE ratios may not outperform a fully invested portfolio.
- Investments in debt schemes will have all the risks associated with the debt scheme including reinvestment risks as interest rates prevailing on interest or maturity due dates may differ from the original coupon of the bond, which might result in the proceeds being invested at a lower rate
- Investments in Equity Schemes will have all the risks associated with the Equity Schemes.
- To the extent the underlined Equity Scheme/Debt Scheme make investment in overseas financial assets, there may be risk associated with currency movements, restriction on repatriation and transaction procedures in overseas markets.
- To the extent the underlined Equity Schemes/Debt Schemes engage in security lending, the Fund will be subject to risks related to fluctuations in collateral value/ settlement/ liquidity/ counter party.
- To the extent the underlined Equity Scheme/Debt Scheme are permitted to invest in derivative instruments, the Fund is exposed to the high risk, high return derivative instruments.

The performance of the scheme may be affected by changes in Government policies, general levels of interest rates and risk associated with trading volumes, liquidity and settlement systems in equity and debt markets.

How does the scheme work?

The scheme will change its asset allocation based on the PE ratio band. At higher PE ratios, it will reduce allocation to equities in order to minimise downside risk. Similarly at lower PE ratios, it will increase allocation to equities to capitalize on their upside potential. Historically, such a strategy of varying the allocation of equity and debt/money market instruments based on the PE ratio level has delivered superior risk-adjusted returns over the long term as explained below, although there is no guarantee that this past performance will be repeated in the future.

The equity component of the scheme will be invested in Pioneer Bluechip Fund (PBCF), an open end diversified equity scheme investing predominantly in large cap stocks and the debt/money market component will be invested in Pioneer Income Fund (PIF), an open end income scheme investing in government securities, PSU bonds and corporate debt.

INVESTMENT OBJECTIVES AND POLICIES

The investment objective of Pioneer Low Volatility Equity Fund is to provide long-term capital appreciation with relatively lower volatility through a dynamically balanced portfolio of equity and income funds. The equity funds allocation will be determined based on the month-end weighted average PE ratio of the benchmark market Index. The current asset size of these schemes is given below:

Portfolio Turnover: Rs.570.62 crs (US\$121.33 million)

The portfolio turnover of Rs.570.62 crs (US\$121.33 million) of portfolio on account of new subscriptions, redemptions, dividend payouts and change in the weighted average PE ratio of the benchmark market Index. Due to the monthly rebalancing feature of the scheme, the portfolio turnover may be high in volatile market conditions. The scheme objectives and the asset allocation pattern of the underlying funds are as follows:

Pioneer Bluechip Fund:

The scheme will invest its equity allocation in units of Pioneer Bluechip Fund (PBCE) an open end, diversified equity fund with a large cap focus and the debt components in units of Pioneer Income Fund (PIF), an open end income scheme investing in fixed income securities.

Asset Allocation Pattern:

Based on the month-end weighted average PE ratio of the benchmark market index, the portfolio will be rebalanced in the first week of the following month. Under normal circumstances, the asset allocation range would be as follows:

Assets		Risk Profile
Equities	Medium to High	– Above 60%
Debt	Low to Medium	– Upto 40%
Money Market Instruments	Low	– Upto 15%

Pioneer Income Fund:

Scheme Objective: The primary investment objective of Pioneer Income Fund is to provide a steady stream of income through investment in fixed income securities.

Asset Allocation Pattern:

12-16	70	30
16-20	50	50
20-24	30	70
24-28	10	90
Above 28	0	100

Calculation of PE ratio

The Price to Earnings Ratio (PE ratio) will be obtained from a reputed agency such as IISL or an internationally recognized brokerage house. It will be the weighted average PE ratio of the 50 stocks that constitute the benchmark market Index.

The Price will reflect the closing market price on the benchmark index for that day. The undiluted earnings per share will reflect the trailing earnings of the most recent four quarters of each of the companies, for which information is available. Depending on the band in which the above computed monthly PE ratio falls, the asset allocation will be rebalanced as per the table above during the first week of the following month.

TEMPORARY INVESTMENTS:

When the Fund Managers believes market or economic conditions are unfavorable for investors, the scheme may invest up to 100% of the Fund's assets in a temporary defensive manner by holding all or a substantial portion of its assets in cash, cash equivalents or other high quality short-term investments. Temporary defensive investments generally may include commercial paper, bank obligations, repurchase agreements and other approved money market instruments, including Mibor/call linked instruments, fixed deposits of banks etc. The manager also may invest in these types of securities or hold cash while looking for suitable investment opportunities or to maintain liquidity. In these circumstances, the Fund may be unable to achieve its investment goal.

Change in the Investment Pattern

Subject to the Regulations, the asset allocation pattern indicated above will not change except to protect the interests of the Unit holders. Such changes in the Investment pattern will be for short term and defensive considerations.

The Fund will seek consent of the Unit holders of the Scheme in accordance with the Regulations, if there is any change in the fundamental attributes pursuant to change in investment pattern.

SYSTEMATIC INVESTMENT PLAN (SIP)

Mutual Fund Investors can benefit by investing specified rupee amounts periodically for a continuous period. This concept is called Rupee Cost Averaging.

This savings program allows investors to save a fixed amount of rupees every month by purchasing additional units of the Fund. Therefore, the average unit cost will always be less than the average sale price per unit irrespective of the market being rising, falling or fluctuating.

SYSTEMATIC TRANSFER PLAN (STP)

A unit holder may establish a systematic transfer plan and choose to transfer on a monthly or quarterly basis from the Scheme to another Pioneer scheme. The transfer will be effected by way of redemption of units (with appropriate exit load, if any) and a reinvestment (with appropriate entry load, if any) of the redemption proceeds in another Scheme(s).

SYSTEMATIC WITHDRAWAL PLAN (SWP)

A Unit holder may establish a Systematic Withdrawal Plan in any scheme and receive regular/ quarterly payments from the account. The Unit holder can opt to withdraw a fixed amount subject to a prescribed minimum amount per month or per quarter.

Appendix - I

End of month	Weighted average PE of benchmark index	Monthly Dividend Yield On benchmark index (%)	Closing Value of benchmark index
December 2003	15.10	0.95	958.9
January 2004	15.59	1.05	1010.6

February 2004	15.80	0.65	963.15
March 2004	15.76	0.85	951.4
April 2004	15.95	0.89	1050.15
May 2004	15.10	1.15	1093.5
June 2004	16.20	1.30	1041.85
July 2004	16.80	1.55	1063.4
August 2004	15.42	1.52	978.2
September 2004	15.35	1.45	934.05
October 2004	16.25	1.52	1006.8
November 2004	16.35	1.65	1134.15
December 2004	15.95	1.42	1185.85

End of month	NAV (Rs.)	
	PBCF	PIF
December 2003	22.15	10.05
January 2004	22.23	10.10
February 2004	20.17	10.25
March 2004	20.22	10.52
April 2004	21.79	10.65
May 2004	22.13	10.75
June 2004	22.73	10.80
July 2004	23.59	11.05
August 2004	22.42	10.95
September 2004	23.15	11.50
October 2004	22.25	11.75
November 2004	23.05	11.35
December 2004	23.26	11.50

Annualized dividend rate on PBCF is 10% during January 2004 – December 2004. PIF pays quarterly dividend and the annualized rates of dividend are as follows:

Quarter	Dividend Rate (Annualized)
October – December 2004	1.75%
July – September 2004	1.77%
April – June 2004	2.25%
January – March 2004	4.50%
October – December 2003	2.25%
July – September 2003	2.00%

(Assume the face value of each unit to be Rs.10 under both the schemes.)

END OF SECTION D

Section E : Caselets (50 Marks)

This section consists of questions with serial number 6 - 11.
 Answer **all** questions.
 Marks are indicated against each question.
 Do not spend more than 80 - 90 minutes on Section E.

Caselet 1

Read the caselet carefully and answer the following questions:

6. Though SEBI has indicted Mr. Samir Arora of insider trading, but it appears that SEBI has failed to see the whole picture. What according to you are the gaps in SEBI's approach? Discuss.

(9 marks) < Answer >

7. Fund Managers are of the opinion that as fund managers are expected to meet the company management regularly and talk about future plans of the company. This is necessary before they can take any stake in the company. Given this, do you think SEBI was too stringent in Samir Arora's case.

(7 marks) < Answer >

Recently the Securities and Exchange Board of India (SEBI) barred Mr. Samir Arora, the high-profile Singapore-based fund manager of Alliance Capital, from the market on the charges of insider trading. SEBI indicted Samir Arora of many serious charges, including alleged insider trading in software maker Digital Globalsoft, non-disclosure after crossing the 5 per cent limit in several companies and unfair trade practices during Alliance's bid to sell its Indian mutual fund business. Also SEBI charged Mr. Arora of causing panic in the market by making public his decision to quit Alliance Capital leading to the redemption of Rs.1300 Cr. SEBI also took a serious view of the buyout bid made for Alliance Capital made by Mr Arora in conjunction with Henderson Global Investors. SEBI viewed this exercise as coming in conflict with his responsibility as fund manager.

SEBI took action under Section 11B and 11(4)(b) of the SEBI Act against Mr. Arora. In view of the grave emergency to save, the investors and the securities market from further acts of Samir C Arora. He was directed not to buy, sell or deal in securities, in any manner, directly or indirectly, till further orders. The Sebi order said that its investigation had found that Arora carried out insider trading in Digital Globalsoft by selling his funds' entire holding of 14.66 lakh shares of the company before the announcement of the swap ratio. The probe revealed that Arora had prior information about the swap ratio, which was not in favour of the DGL shareholders. The investigation also revealed that Arora disposed off the entire holdings immediately after the independent valuer submitted his report and prior to the announcement of merger ratio for the de-merger of HPS-ISO Division of Hewlett Packard India with DGL. There were no transactions in the scrip of Digital Globalsoft by the funds under Arora's management from April 11, 2003 to May 7, 2003 but he suddenly became very aggressive in disposing off the entire holdings of 14.66 lakhs shares held by the funds under his management in 4 consecutive trading days commencing from May 8, 2003.

The order said that incisive analysis of the circumstantial evidences corroborate that Arora had traded in the scrips of DGL on the basis of unpublished price sensitive information obtained due to his close nexus with the insiders of the company and thereby averted losses to the tune of approximately Rs.24 crore for the funds managed by him. The SEBI order said that Alliance Capital MF, FIIs and sub-accounts of Alliance Capital which are managed by Arora failed to make declarations to various companies when their shareholding in these companies crossed the threshold limit of 5 per cent. These companies include Balaji Telefilms Ltd (BTL), Digital Globalsoft Ltd (DGL), Mastek Ltd.(Mastek), Hinduja TMT Ltd (HTMT) and United Phosphorous Ltd (UPL). The disclosure is required under SEBI takeovers regulations. The order said that in some instances they have made wrongful disclosures under the said Regulation 7, possibly to mislead the investors and the public at large. It said that there is a prima-facie case of insider trading by Samir C Arora." It further said that Arora being the fund manager at ACMF and FIIs/sub-accounts of ACM was responsible for the alleged non-disclosures and wrong disclosures under the SEBI (Substantial Acquisition of Shares and Takovers) Regulations and SEBI (Prohibition of Insider Trading) Regulations. SEBI also took strong exception to the role played by Arora during the period when Alliance Capital made a bid to sell its AMC business in India at the end of last year. Samir had joined hands with Henderson Global Investors for the purchase of the stake of Alliance Capital Management (ACM) in Alliance Capital Asset Management Limited (ACAML) was in conflict with his interest as a fund manager. It alleged that Arora had tried to create panic in the market with his announcement that he would quit the fund. Redemptions crossed from Alliance schemes 1,300 crore over two months. SEBI said Arora's actions were responsible for the fall in valuations of the Indian arm of US-based Alliance Mutual Fund.

Just as the favorite stocks of Sameer Arora tumbled, Alliance Mutual Fund faced a redemption pressure from the investors. The investors exiting the schemes included big institutional funds as well.

In a bulls market, Alliance faced a pressure on its Assets Under Management. The beleaguered fund house saw its assets slide by 15 per cent during the month of August, 2003. The assets under management on July 31, 2003

were Rs.2859.8 crores and the assets under management on August 29, 2003 stood at Rs.2416.5 crores. Market experts attributed this to the exit of the star fund manager Mr. Samir Arora from the fund house. The redemption was faced by major front line schemes with a strong or sole equity component, like Allinace 95, Alliance Basic and Alliance Equity. Alliance 95 saw a decline of 9 per cent in its AUM from Rs.204.1 crores on July 31, 2003 to Rs.187.5 crores on August 29, 2003. Other equity schemes too saw similar falls.

Caselet 2

Read the caselet carefully and answer the following questions:

8. The caselet states that market has been moving within a very narrow range and this has led to mutual funds moving towards a different kind of offering for their investors. What kind of flexible schemes suit different types of investors if markets are moving in a narrow range?

(8 marks) < [Answer >](#)

9. Dynamic funds can switch over from stocks and bonds and allocate 100% of their fund in either of these two assets based on market condition. According to you what would be the risk level of dynamic funds compared to other types of mutual funds.

(8 marks) < [Answer >](#)

Investors, who have suffered erosion in their portfolio values due to poor performance of several equity-oriented mutual fund schemes, have focused on a few other options.

While a majority of the investors have preferred to go in for a debt-oriented scheme, the other choice has often been passively managed funds where there is not much decision making left to the discretion of the fund manager.

The market has been moving within a very narrow range and this has led to mutual funds moving towards a different kind of offering for their investors. Thus, another category or range of schemes, which are witnessing an entry into the Indian mutual fund industry are flexible schemes.

These schemes have the ability to change the composition of their investment regularly by shifting from one class of assets to the other depending upon the situation prevalent in the markets.

The very basis for such types of schemes is flexibility in the investment process. Once again investors need to be cautioned that while such schemes would have different names depending upon the mutual funds which have launched them, there would also be variation in their features, which need to be considered.

According to the broad nature of these plans the scheme can invest in a particular class of assets, say, equities. This gives it the ability to have the potential to record good returns in case of a rise in the market. However, unlike other equity schemes there is no compulsion for the fund to remain invested in equities at all times.

This means that in case of a rise in the market the fund can switch over to debt or cash so that in case of a downturn in the market the investor does not suffer on account of the fall. While all this may sound to be good in theory, the key for the investor is the way in which the changes will be done. The question to be asked is whether the estimation of the overvaluation or undervaluation and the selection of particular stocks is left to the discretion of the fund manager or would the changes be based on prefixed norms. These points will help in aligning the specific features of a scheme with the exact requirements of the investor.

We shall take the example of a couple of recent examples to illustrate the point. First, consider the UTI Variable Investment Scheme, which has launched an index-linked plan. This scheme seeks to increase allocation to equities when the markets are depressed and vice versa. The important point here being that the stocks, to be selected in the scheme, would be the sensx scrips based on the same proportion as in the index as this is an index linked plan. This point introduces an element of passivity because an element of decision-making in the issue of selection of scrips is taken away from the fund manager.

On the other hand, consider the Prudential ICICI Dynamic fund. The fund manager here has the discretion to take aggressive asset calls and thus one could find that at some point around 100% of the portfolio is in equities or at other times even a majority of the portfolio lying in debt and debt-related instruments.

The important point here being the changes being made at the discretion of the fund manager. In all these cases, investors need to be aware of the danger that large churning of the portfolio in the pursuit of the stated objectives could also lead to losses.

For investors, here is also a view about how other schemes that are present in the market behave. In case of normal diversified or sectoral equity schemes, the fund manager has the potential and the ability to ensure that the investment of the fund is sold and the corpus is held in the form of cash and related securities when the

situation so desires. This is usually seen when fund managers stack up in cash and related instruments in the expectation of a fall in the market so that stocks can be bought at lower levels.

Now, balanced schemes. These schemes invest in a mixture of equity and debt so as to allow the investors the benefits of both the worlds. Usually, however, the percentage of both these are fixed over a period of time, with the equity part being more than half of the total corpus of the scheme.

On the whole, investors have to answer the question of what they are looking for while investing in such schemes. The first choice to make is whether one would like to go in for a passively managed scheme or an actively managed scheme. In addition as described earlier some schemes will consider certain pre-fixed levels based on which they will necessitate a change in the composition of the holdings of the fund.

As against this, in the case of an actively managed fund there will be an element of discretion that is available to the fund manager wherein he will be able to dictate when and the way in which the investments of the scheme shape up. But investors should always look around because with an increasing number of innovations and offerings available from funds there is a greater chance of their needs being met without too much of a trouble.

Caselet 3

Read the caselet carefully and answer the following questions:

10. The caselet mentions that despite the considerable benefits of a fund manager's selection, AMCs may be reluctant to provide this feature to investors as it would mean investing in other AMC also. Given this situation, what alternative investment strategy the investors can adopt to generate the potential returns? Discuss

(9 marks) < [Answer](#) >

11. It is often argued that complex models to manage asset allocation will thrive only in a more liberal framework. Given that FoFs offer many benefits, the regulation of such funds needs to be made more liberal. Do you agree? Discuss.

(9 marks) < [Answer](#) >

Everybody has changing investment requirements, depending on the market conditions and personal needs. Most people tend to invest more in equity despite market frenzy. People kept buying when the Sensex was riding 6000-plus and are rueing their decision as there has been an average 25 per cent loss in the corpus, with the market dropping thereafter. Surprisingly, this mistake is committed by even the so-called financial savvy professionals. Likewise, it was common in 2002 for investors to go overweight in debt with unnaturally high returns from fixed-income investments. Investment in property happened mostly at the boom time (the early 1990s).

Moral of the story: Investors invariably do not make proper asset allocation.

Asset allocation is crucial because the markets are volatile. The risk aptitude of an investor depends on his age. Who does not want high returns? For instance, a 56-year-old early retiree will not be willing to risk his principal, but a young professional may take a chance as he has better wherewithal, in the shape of a long career tenure, to take losses.

Gone are the days, when investment planning was done once a year. These days people make changes in asset allocation rather frequently.

It also emerges that while a large population of investors is happy investing in mutual funds, the entry load acts as spoilsport. One possible solution to the above issues could be the development of a grand fund called "fund of funds" (FoF). The FoF can be equated to master funds which can have an investor's total corpus of mutual fund investments. That is, if an investor has scattered investments in four-five funds and 10-15 direct scrips, he can instead invest his full amount in an FoF. The FoF will give the investor the option of allocating his investment, say, in an aggressive (75 per cent equity and 25 per cent debt), moderate (51 per cent equity and 49 per cent debt), conservative (25 per cent equity and 75 per cent debt) or dynamic debt (0 per cent equity and 100 per cent debt) plans. This allocation can be done on the basis of a detailed risk profiling done by an investment advisor or the investor himself.

A fund of funds delivers two advantages to investors — selection of funds (manager selection) and tactical asset allocation. Manager selection may, however, remain a pipe-dream as far as investors are concerned. Asset management companies may be reluctant to divert funds that they have mobilised to other AMCs.

In fact, two AMCs — Franklin Templeton and Prudential ICICI — have filed their draft prospectus with SEBI. Neither envisages investments outside of their AMCs. The lack of manager selection can rob investors of a

greater portion of the value that a fund of funds can deliver.

Past performance of equity mutual funds also suggests that investments in schemes of more than one AMC is necessary to generate the most from the fund of funds concept.

For example, in the broad based fund category, HDFC Top 200 has been a consistent performer. Similarly, in the mid-cap fund category, Franklin India Prima has been generating better returns. Any fund of fund that does not consider these two funds together runs the risk of under performance.

Internationally, the FoF is very popular, as it has the investment expertise and disciplined approach of the fund manager. More than this, the FoF is economical as the entry/exit load is avoided. The FoF will also have the advantage of cashing in on equity market surges and will dynamically review rebalancing strategies so as to take advantage of the rising market. A study done for funds without rebalancing during the volatile period of April 1998 to October 2003 revealed that without balancing equity exposure grew to 84 per cent. The product feature provides a disciplined approach to investment and the investor is insulated from taking decisions based on the market sentiments.

The FoF is also tax efficient. Presuming that an investor has shown the agility to cash his pure equity fund (to take advantage of growing equity market) and invest in a debt fund, he will be burdened with a short-term capital gain tax (33 per cent). If in another two months he again switches from one scheme to another, another dose of short-term gain tax would be payable. Whereas if he invests in an FoF, such short-term taxes will not be levied as such transactions are not done by the individual. Though the FoF is a new entrant to the Indian market, many variants are likely to be available from different fund houses. The FoF has a promising future in India, as it tries to address some of the practical concerns of investors. It will not be surprising if people use the FoF as an alternative to the portfolio management scheme (PMS) run by many brokerage houses where the minimum investment needed is Rs 50 lakh.

END OF SECTION E

END OF QUESTION PAPER

Section D : Case Study

February 2004	15.80	70	30
March 2004	15.76	70	30
April 2004	15.95	70	30
May 2004	15.10	70	30
June 2004	16.20	50	50
July 2004	16.80	50	50
August 2004	15.42	70	30
September 2004	15.35	70	30
October 2004	16.25	50	50
November 2004	16.35	50	50
December 2004	15.95	70	30

From above it is clear that portfolio is changing four times during the given time period

Return up to May, 2004

i. On investment in PBCF

Dividend received = $0.10 \times 10 \times (5/12) = \text{Rs.}5/12 = \text{Rs.}0.416$

Price change = $22.13 - 22.15 = -0.02$

Hence yield on PBCF for 5 months period

$$= \frac{-0.02 + 0.416}{22.15} = 1.79\%$$

Yield on PIF

Dividend received = $10 \times (0.0225) \times (2/12) + 10 \times (0.045) \times (3/12) = 0.15$

Price change = $10.75 - 10.05 = 0.70$

Yield = $(0.70 + 0.15) / 10.05 = 8.46\%$

Therefore, return on PE Ratio fund for 5-months period

$$= 0.7 \times 1.79 + 0.3 \times 8.46 = 3.791\%$$

ii. Return for the period June 2004 to July 2004

On investment PBCF

Dividend received

$$= 0.10 \times 10 \times (2/12) = \text{Rs.}0.167$$

Price change = $23.59 - 22.13 = 1.46$

Hence, yield on PBCF for two months

$$= \frac{1.46 + 0.167}{22.13} = 7.35\%$$

Yield On PIF

Dividend received = $10 \times 0.0225 \times (1/12) + 10 \times 0.0177 \times (1/12) = 0.0335$

Price change = $11.05 - 10.75 = 0.30$

$$= (0.30 + 0.0335) / 10.75 = 3.10\%$$

Therefore, return on PE Ratio fund for 2 – month period

$$= 0.50 \times 0.0735 + 0.031 \times 0.50 = 5.23\%$$

iii. Return for the period August 2004 to September 2004

On investment in PBCF

Dividend received = $0.10 \times 10 \times (2/12) = 0.167$

Price change = $23.15 - 23.59 = -0.44$

Yield on PBCF = $(0.167 - 0.44) / 23.59 = -1.157\%$

Yield on PIF

Price change = 11.50 – 11.05 = 0.45

Dividend received = 0.0177 X 10 X (2/12) = 0.0295

Yield = (0.45 + 0.0295) / 11.05 = 4.34%

Return on PE ratio fund for a period of August 2004 to September 2004

$-1.157 \times 0.70 + 4.34 \times 0.30 = 0.4921\%$

iv. Return for the period October 2004 to November 2004

On Investment in PBCF

Price change = 23.05 – 23.15 = –0.10

Dividend received = 0.10 X 10 X (2/12) = 0.167

Yield on PBCF = $(-0.10 + 0.167) / 23.15 = 0.289\%$

Yield on PIF

Price change = 11.35 – 11.50 = – 0.15

Dividend = 10 X 0.0175 X 2/12 = 0.0292

Yield = $(-0.15 + 0.0292) / 11.50 = -1.05\%$

Return on PE ratio fund for a period of October 2004 to November 2004

$0.50 \times 0.289 + 0.50 \times -1.05 = -0.3805\%$

v. Return on P/E ratio fund during December 2004

On investment in PBCF

Dividend received = 0.10 x 10 x (1/12) = 0.0833

Price change = 23.26 – 23.05 = 0.21

Yield = $\left(\frac{0.0833 + 0.21}{23.05} \right) = 1.27\%$

Yield on PIF

Price change 11.50 – 11.35 = 0.15

Dividend = 10 x 0.0175 x 1/12 = 0.0146

$(0.15 + 0.0146) / 11.35 = 1.45\%$

Return = $1.27 \times 0.70 + 1.45 \times 0.30$

= 1.324%

Overall return on PE ratio fund for 12-month period

$(1 + r) = (1 + 0.0379)(1 + 0.0523)(1 + 0.00492)(1 - 0.0038)(1 + 0.01324)$

= 1.1079

r = 10.79%

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3.

Benchmark Index	Return on Index (R_m)	$(R_m - \bar{R}_m)$ only for	$(R_m - \bar{R}_m)^2$
958.9	–	–	–
1010.6	5.391%	-	-
963.15	–4.695	–6.678	44.599
951.4	–1.22	–3.203	10.259
1050.15	10.379	-	-
1093.5	4.128	-	-
1041.85	–4.723	–6.707	44.984
1063.4	2.0684	-	-
978.2	–8.012	–9.995	99.900

978.2	-8.012	-9.995	99.900
934.05	-4.513	-6.496	42.198
1006.8	7.7887	-	-
1134.15	12.649	-	-
1185.85	4.5585	-	-
	23.8		241.94

$$\bar{R}_m = 23.8 / 12 = 1.9833\%$$

$$(-ve) \text{ Semi variance} = 241.94 / 11 = 21.99$$

$$\text{Semi deviation} = (21.99)^{1/2} = 4.69\%$$

Most widely used measure of risk is standard deviation, which considers both positive and negative deviation of returns. However any return above the expected return should be considered as reward and not risk. Considering only negative deviation from mean return (downside semi-deviation) gives an idea about the index funds variability which is below the mean from the index. This measure could be considered as a more meaningful measure of risk.

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4. Number of Units in both the Plans as at the end of January 2004

$$\text{PBCF} = \frac{1,00,000}{22.23} = 4498 \text{ units}$$

$$\text{PIF} = \frac{1,00,000}{10.1} = 9901 \text{ units}$$

	NAV		PBCF	PIF	Balance of units in PBCF	Balance of units in PIF
	PBCF	PIF				
January 2004	22.23	10.1	----	----	4498	9901
February 2004	20.17	10.25	---	----	4498	9901
March 2004	20.22	10.52	$\frac{10000}{20.22} (1+0.0065) = 491$	$\frac{10000}{10.52} (1-0.0074) = 958$	4989	8943
April 2004	21.79	10.65	$\frac{10000}{21.79} (1+0.0065) = 456$	$\frac{10000}{10.65} (1-0.0074) = 946$	5445	7997
May 2004	22.13	10.75	$\frac{10000}{22.13} (1+0.0065) = 449$	$\frac{10000}{10.75} (1-0.0074) = 937$	5894	7060
June 2004	22.73	10.8	$\frac{10000}{22.73} (1+0.0065) = 437$	$\frac{10000}{10.8} (1-0.0074) = 933$	6331	6127
July 2004	23.59	11.05	$\frac{10000}{23.59} (1-0.0074) = 427$		5904	
August 2004	22.42	10.95	$\frac{10000}{22.42} (1-0.0074) = 449$		5455	

September 2004	23.15	11.5	$10000/23.15$ $(1-0.0074)$ $=435$		5020	
October 2004	22.25	11.75	$10000/22.25$ $(1-0.0074)$ $=453$		4567	
November 2004	23.05	11.35	$10000/23.05$ $(1-0.0074)$ $=437$		4130	
December 2004	23.26	11.5	$10000/23.26$ $(1-0.0074)$ $=433$		3697	
					3697	6127

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5. a. Merits and Demerits of PE ratio fund are as follows:

Merits of PE ratio fund

- Less volatility of the fund NAV.
- Superior risk-adjusted returns through a dynamically balanced portfolio.
- The strategy does not require extensive research.

Demerits of PE Ratio fund

- It is a not an active investment strategy and expected to give less return in continuously rising index.
- The asset allocation is based on certain historical value of underlying Index and P/E. The future relationship may be different altogether.
- The rigid asset allocation framework undermines the stock selection and timing skills of fund manager.

- b. **Merits of Fund of Funds**

Reduction in risk – Fund of funds provide double diversification benefit by assembling a portfolio of different mutual funds .A fund of funds manager can achieve a broadly diversified spread of investments and minimise the consequences of choosing a wrong mutual fund.

Expertise – Fund of Funds can utilize expertise and knowledge of various fund managers about mutual fund schemes in the same way that other fund managers know about shares. This benefit helps in understanding the mutual fund schemes.

Institutional Investment - Fund of funds are capable of investing in desirable institutional funds which are not available to retail investors. Sometimes these funds can invest in some funds which charges load without paying the load.

Cheap for Beginning Investors -It is tough to diversify when starting out because of account minimums. A fund of funds allows for an investor to diversify amongst hundreds or thousands of stocks in one small account.

Reduced paperwork – A fund of funds gives a uniques advantages in the form of reduced paperwork. Instead of investing in many different funds to achieve the same result, you can just invest in one fund. This allows for much less paperwork. Suppose an investor invests separately in 20 funds, the paperwork involved would be exactly 20 times as much as for a fund of funds, which has invested, in the same 20 mutual funds.

Demerits of Fund of Funds

Extra Fees -Some fund of funds charge extra fees at the parent level which can compel investors to create the same portfolio by buying different mutual funds themselves.

Expense Ratios - Most of the fund of funds carry a high expense ratios, which can curtail the effective return form these funds.

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Section E: Caselets

Caselet 1

6. Initially SEBI was as usual conspicuous by its absence from the scene. Later on, it probed the dealings and finally imposed a ban on Mr. Samir Arora from directly/indirectly dealing in government securities. SEBI has, however, allowed Arora to sell the securities held by him, if any, with prior permission from the regulator. The SEBI order comes into force with immediate effect

However, there are certain aspects of SEBI investigations and the judgments passed in this case which deserve special attention:

Selective chargesheet: Alliance Capital Mutual Fund was not initially charged of any misconduct. SEBI's charges separated the operations of Mr Arora and that of the fund.

As we know, mutual funds have a three tier-structure - A sponsor, an asset management company (AMC) and a trustee company. The board of directors of the AMC, and the board of the trustee company are the two key levels of checks and balances to safeguard the interests of investors. Periodic reports — weekly and monthly — have to be provided by the AMC to the trustee company, and by both to SEBI. Such a structure is also intended to keep the fund operations within the confines of the law. Alliance Capital, too, operates in this framework. If so why did not SEBI file a charge-sheet against the fund?

However, later in September 2003, Securities and Exchange Board of India finally questioned the role of the board of the Alliance Capital asset management company and its board of trustees.. SEBI dwelt on the question of the accountability of the board of directors and the trustees of Alliance Capital Mutual Fund. Laying the onus of overall supervision on the shoulders of the board, the regulator said that the fund manager may be given professional freedom in the day-to-day operations; the board of directors must ensure that the fund managers function within their control. It reminded that a diligent, periodical review of the style and strategy of the fund manager could have enabled the board to take remedial action.

In August 2004, SEBI charged the penalty of Rs. 15 crore on Alliance Capital Management Limited, and two associated Alliance entities for alleged insider trading and other market manipulations. The order was passed on August 18th, 2004; however, the order has not been made public. The order came into light when Samir Arora, former chief investment officer for Alliance Capital Management Limited, appealed against the SEBI order finding him guilty of alleged insider trading, banning him from the capital markets for five years.

Lack of governance: A key question that crops up, and remains unanswered, as yet, is why the board of the AMC and the trustees did not scrutinise the nature of transactions in the larger exposures of the fund. Stocks such as Digital GlobalSoft, Mastek, United Phosphorus, Hinduja TMT and Balaji Telefilms have been part of the top ten equity holdings of Alliance at different points in time over the past two years. If, indeed, investment decisions were based on unpublished, price-sensitive information, the system must have reined in such actions. Even if this aspect was not known, the sheer size of exposures in such mid-cap stocks — where price swings on buying and selling can be sharp — should have attracted scrutiny.

The fund managers of Alliance always appear to have had a streak of such aggressive investing. For instance, at the height of the tech/telecom/media stocks boom in late 1999 and early 2000, stocks such as Himachal Futuristic, Global Tele-Systems (now GTL) and Shyam Telecom, to name a few, figured prominently in the top ten holdings. These exposures, coupled with a few others such as SSI and Zee Telefilms, considerably increased the risk profile of Alliance schemes.

Birla Mutual and Alliance Capital were known to allocate a large portion of assets to a small number of stocks. This track record should have alerted the directors of the AMC and the trustees and forced them to keep a close tab on the operations. But the trustees seem to have failed in this.

Mutual funds are also expected to have internal control systems to check any transgression. A fund such as Alliance Capital, which has been around on the US mutual fund scene, long enough to have such systems, and the same could have been passed on to its Indian affiliate.

Companies left untouched: SEBI has, in its order, indicated that Mr Arora obtained unpublished, price-sensitive information from companies. Disclosure of such information is as serious as is profiting by trading on it.

This being the case, it is surprising that SEBI has, at least so far, refrained from pursuing any action against the companies in question.

These are some of the gaps in SEBI's approach. But improvement over its earlier approaches to investigation is its move to rely on circumstantial evidence to take up cases of price manipulation/insider trading. The charge of insider trading in Digital Equipment against Mr Arora is based on circumstantial evidence. Only if SEBI pursues this line will it be able to investigate, and bring to the fore possible cases of

price manipulation. Taking up a sizeable number of cases, and slapping charges where the circumstantial evidence is fairly strong, is one way by which SEBI can set an example of strict regulation. Where the charges stick, penalties should be so stiff as to serve as a deterrent. This is an approach that the US Securities and Exchange Commission has followed with some effect. SEBI should also move to a system of investigating every key corporate announcement for potential price manipulation. Only this will prevent such activities.

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7. Fund Managers feel that SEBI's order was a little stringent. They hold the opinion that as part of their profession it is only natural to meet company management to get an insight into the working of the company. This is not to deny the fact that in many cases this may lead to back-to-back investment (i.e. the company invests in the mutual fund units and mutual fund in turn invests in company's shares) or insider trading.

Section 2(e) of the Insider Trading regulations defines an insider as any person who is (or was) connected with a company, or is deemed to have been connected with the company and is expected to have access to unpublished price-sensitive information about the company. The enumeration of persons deemed to be connected with the company, as given in Section 2(h), includes intermediaries, investment companies, trustee and asset management companies or employees of stock exchanges and clearing corporations.

Normally, to prove insider trading, Sebi would have to prove how any person got price-sensitive information, and how his use of it was malafide. But an amendment made to the insider trading regulations in February 2002 dropped some crucial words in section 2 (e). Earlier, an insider not only had to be connected or deemed to be connected with a company, but had to have access to price-sensitive information "by virtue of such connection." Dropping the words "by virtue of such connection" makes it easier for Sebi to level charges without a firm degree of proof.

Given that now the SEBI's definition of insider/ connected persons is all inclusive and the onus to prove that one was not involved in insider trading lies with the fund manager, it may be difficult for the fund managers to strike a balance between staying indifferent of company's performance and making informed decisions. But on these grounds insider trading cannot be protected. It has been proved that insider trading cannot be eliminated and the only alternative before the regulator is to provide some deterrent. By punishing the wrong doers SEBI is doing just that.

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Caselet 2

8. Indian Mutual fund industry has witnessed several new products introduced by mutual funds during the last few years. Most of these products have been related to new kinds of schemes launched by the funds or some additional services provided to investors.

One of the recent trend has been investment in overseas securities. Some of the ways in which this is being implemented by different funds include investment in foreign debt instruments across the world and investments in American Depositary Receipts (ADRs) and Global Depositary Receipts (GDRs) of Indian companies abroad. The attractive feature is that such an investment can provide an additional element of diversification for the investor's portfolio. The first and the most common mode of diversification for the investor are to choose between equity and debt and spread their risk between these areas, depending upon their risk bearing ability. Apart from this benefit there can be a further attempt at diversification even within the equity or debt portfolio so that the entire class of assets is not subject to the same kind of risk. Since last one year the market is moving in narrow range that is very much evident from the values of indices one year before and their values prevailing now. ICICI has launched dynamic fund, which can invest in equity, and debt instruments depending on the prevailing market conditions this type of schemes suits the investors who are interested in the steady returns. Again UTI has introduced UTI variable investment scheme which is an index linked plan and plans to increase allocation to equities when market is depressed. Therefore it suits those type of investors who are interested in more returns.

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9. Although dynamic fund can switch over between the equity and stocks the riskness level of the dynamic fund is moderate and definitely lesser than a normal growth fund. Roughly speaking riskness level of the dynamic fund will be lesser than risk of a balanced fund but greater than money market fund. This is because dynamic fund invest in fixed income or equity markets based on the prevailing market conditions and therefore mutual fund manager will always try to avoid those market which are not attractive and greater risk attached with them

Caselet 3

10. Despite the considerable benefits of a fund manager's selection, AMCs may be reluctant to provide the feature to investors. In this backdrop, only tactical asset allocation — that is, deciding allocation to equity based on expected returns — holds the potential to deliver returns. Investors need to be wary of fund of fund schemes that promise constant allocation to equity and debt.

Such a fund can only deliver returns if it practices manager selection. Since it is unlikely to do so outside of its AMC, such a fund of funds scheme may not deliver significantly higher returns.

In this context, investors can look forward only to tactical asset allocation funds. Funds such as Franklin India Nifty PE Ratio Fund and UTI Variable Investment Scheme (VIS) are some examples. However, these involve index investing of the equity component, robbing them of their charm. With the introduction of the fund of funds concept, the equity portion can be invested in actively managed funds.

Tactical asset allocation may be enough to generate reasonably superior returns even without manager selection. The offer document of Franklin Templeton Low Volatility Fund suggests that the risk-adjusted performance of an asset allocation strategy would have delivered superior returns over the past ten years compared to an equity fund.

Still, investors need to be cautious about investing in such tactical asset allocation funds too. This is because the scheme may be poorly framed.

For example, the Nifty PE ratio fund relies on the level of PE ratio of Nifty to decide allocation to equity. If the PE ratio of Nifty fails to adequately capture of the valuation of equities then the scheme may fare badly.

Similarly, VIS is based on absolute Sensex values. This scheme too may fail to bring out the benefits of tactical asset allocation if Sensex values do not provide meaningful signals regarding equity valuation. In this context, complex models to manage asset allocation appear to be the need of the hour.

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11. Complex models to manage asset allocation will thrive only in a more liberal framework. AMCs are allowed to charge 0.75 per cent of the net assets of a fund of funds towards their expenses. If the payoff is as low as 0.75 per cent of net assets, AMCs are unlikely to launch funds based on complex models.

In this context, the regulation of such funds needs to be made more liberal. The AMCs must be allowed to launch profit-sharing fund of fund schemes. If the performance of the fund of fund schemes is better than that of the benchmark, a portion of the excess over the benchmark can accrue to the AMCs.

Such incentives may be necessary to induce the AMCs to launch funds based on effective asset allocation models. Such incentives will also force them to invest outside of their AMCs to generate higher returns.

SEBI should also consider allowing banks, insurance companies and pension funds to launch fund of fund schemes. Such institutions are more likely to engage in fund manager selection. They also possess the kind of skills needed to optimise fund manager selection and asset allocation.

At the same time, the institutions enjoy credibility with investors and can thus exploit the fund of funds concept to the greater advantage of investors.

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