

Question Paper

Portfolio Management and Mutual Funds - II : July 2001

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. Do you find any inconsistencies in the findings, recommendations and other information given? Explain.
(10 points)
2. Construct an optimal equity portfolio using Sharpe Optimization Technique based on the information given regarding the five stocks.
(12 points)
3. As per AAMC policy 60% of the corpus is invested in Optimal equity portfolio determined in (2) above, 15% in cash and cash equivalents and the rest in debt instruments. Expecting a risk in sensex the portfolio manager intends to increase the β of the total portfolio by 10%. Consider the present sensex is 3550 and the index futures contracts (with a multiple of 100) is priced at 3570. How many contracts are to be purchased to achieve the desired β ?
(8 points)
4. a. Suggest with justification the allocation of investment into equities and debt that is suitable for Mohan.
b. Comment on the suitability of the scheme being floated by AAMC with justification.
(6 + 4 = 10 points)
5. Describe the uses of futures in portfolio management other than in the management of beta.
(10 points)

Adventure Asset Management Company (AAMC) is planning to launch an open ended balanced scheme shortly. The managers of the fund are targeting to raise an initial corpus of Rs.500 crore. The scheme is scheduled for launch in August 2001. A leading private sector bank promoted the asset management company. The units of the scheme will have a face value of Rs.10.

The objective of the new scheme will be to achieve long-term capital gains without accepting too much risk. The scheme will therefore invest in both equities and fixed income securities. The managers of the scheme also want to consider equity-related securities like fully convertible debentures, partly convertible debentures, warrants, etc. Apart from secondary market trading, the scheme will also be active in the IPO market.

Investments in debt include top rated debentures, government securities, T-Bills and call money investments to the extent permissible.

The company has already set up a research division to formulate its investment policies and identify suitable securities. The summary of the findings and recommendations of the division are as follows:

The Economy

- The GDP growth is expected to be around 7% in the current fiscal supported by strong industrial growth
- The inflation level will continue to be at the current level of 6% in the next few years
- The interest rate will continue to be low and credit availability will be high
- The exchange rate of rupee will be stable, around Rs.47 to a dollar

- The inflows on account of foreign direct investment and foreign institutional investment will be higher in the next few years
- The monsoons may continue to be normal and the agricultural production will be at a comfortable level, though the surpluses available for exports may not change significantly
- The industrial exports will grow at a slower rate than the imports and the balance of payments situation may deteriorate in the next two years

The Industry

- Core industries such as steel, cement, petroleum and aluminum will do well
- Information technology, internet service providers, non-banking finance companies and electricity companies will not perform well in the near future
- Construction, housing, housing finance and electricity companies will perform well due to improvement in the general economic condition
- Automobiles, particularly commercial vehicles and pharmaceuticals may not perform well

Stock Selection

- At any point of time, at least 50% of the corpus should be invested in equities
- At least 10% should be allocated to FMCG stocks
- The scheme will have at least 10% of the funds invested in defensive sectors like housing and food
- Investment in software and internet stocks will be to the extent of at least 15% of the corpus and it will be limited to the best few stocks in the industry
- Investment in pharmaceutical stocks will be avoided due to their uncertain future
- Investment will be made only in stocks of companies whose sales have been increasing at a rate of not less than 10% in the last five years
- To qualify for investment, a company should have paid out at least 35% of its profits as dividends every year during the last five years
- In the initial few years, investment will be limited to companies that have been listed on Bombay Stock Exchange for at least 10 years
- Stocks whose turnover on the Bombay Stock Exchanges or the National Stock Exchange exceeds 55% of their market capitalization in any given month will only be considered for investment
- The beta of the stocks invested in should be at least 1.20
- Highly volatile stocks will be avoided. Stocks for which the difference between the highest and lowest prices in any month is greater than 25% of the opening price of that month will not be considered

Debt Investments

- Out of the funds allocated to debt investments at any point of time, at least 65% should be T-Bills and government securities
- Investment in debentures of companies will be limited to those rated investment grade
- The minimum coupon rate of investments in corporate debt should be 14%
- The corporate debt investments will be limited to those that are actively traded in the secondary market
- Debt investments will be limited to secured instruments
- The minimum duration of the investments should be 5 years
- Not more than 30% of the total investments made in fixed income securities will be traded in, in any year
- Call money investments will only be made at yields more than 9%

Risk Management

The managers of the scheme want to actively manage the beta of the stock portion of the investments made using the stock index futures currently being traded on the Bombay Stock Exchange. Investments in debt securities, unless liquidity needs dictate sales, will always be held till maturity to avoid interest rate risk.

Other Information

The research division has also identified some companies in whose stocks investments may be made. It also identified some debentures for possible investment. The stocks identified and the projections made regarding them are:

Stock	Alpha(%)	Beta	Unsystematic Risk (% ²)
ACC	0.14	1.30	225.00
TISCO	0.28	0.95	63.20
Reliance Industries	0.64	1.25	56.25
SBI	0.78	0.96	134.56
HDFC	0.27	1.45	214.62

The return from the market portfolio is presently 13% having a standard deviation of 14%. The risk free rate of interest is presently 8%.

The debentures and bonds identified for investment are:

Company	Price (Rs.)	Face Value(Rs.)
ICICI Deep Discount	4750	5000
Jindal Vij. Steel	10.10	10.00
Reliance Petroleum	48.40	50.00

A Young Man's Dilemma

Ravindra, aged 50, is a lecturer in a university college. He has only one child, a son-named Mohan. Mohan is 18 years old and is pursuing his graduation in the engineering discipline. Recently, one of Ravindra's aunts died and he inherited her property. Ravindra wants to invest the property in the form of a land worth Rs.8 lakhs in such a way that it will be useful to Mohan in future, considering his future education plans and profession. Mohan wants to start a small manufacturing unit after finishing his graduation. He estimates that the unit requires a total investment of Rs.45 lakhs. Having known Mohan's future plan, Ravindra has left the investment decision to him. Now, Mohan is in a dilemma about how to invest the money. The scheme now being advertised by AAMC is one of the alternatives being considered by him.

END OF PART D

Part E : Caselets (50 Points)

- This part consists of questions with serial number 6 - 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:

6. The caselet suggests that churning the portfolio is undesirable. What is the downside involved in not churning the portfolio?

(6 points)
7. According to the caselet, exit of investment managers from software was more instinctive than intelligent. Do you think the same applies to their entry into old economy sector? Explain.

(6 points)
8. What are the circumstances in which a switch of investments from one sector to another is justified? Explain.

(6 points)

Most equity fund managers ended last year by showing the door to new economy stocks. And in a surprising move, they embraced the old economy in a hurry. This isn't exactly surprising when you look at the NASDAQ in the last quarter of 2000, a picture of gloom and a reflection of the dotcom doom. With the NASDAQ's rather precipitous fall, domestic software stocks also caught the proverbial cold and investors dumped them rather frantically. Fund managers followed suit and exited from software big time.

For most investors including fund managers, exit from software was more instinctive than intelligent. It was more reactive than proactive. For instance, if the reasons for buying software were purely fundamental, then how does it matter if the NASDAQ crashes below the earth? Infosys' superior management and excellent work ethic don't take a knock just because a few hundred dotcoms crash and NASDAQ is not comfortable with that.

In any case, investors decided to fill the void created by software by lapping up old economy stocks – cement, petroleum, engineering (banks in any case already existed in equity portfolios).

Disillusioned with software, fund managers also took to old economy stocks. These were the stocks that they had shunned for most last year, in favor of software. Now that software fell out of favor, they were left with old economy for consolation. Firming up of cement stocks redeemed them in the eyes of their investors. With news of impending disinvestments in public sector petroleum companies, there was more cheer for fund managers and old economy allocations rose further.

Fund managers are increasingly getting more and more reactive as opposed to being proactive. When we look at fund portfolios, we find most fund managers 'chasing' stocks rather than 'investing' in them. There is hardly any direction. Portfolios are churned actively adding to volatility and transaction costs. Yesterday's star stocks are today's duds, they are given the boot and are replaced just as quickly. As reported by a business daily, when a fund manager from one of the leading fund houses in the country was asked, "Your portfolio in early 2000, contained scrips such as Danlaw Technology, Magic Software and Millennium Infocom. What future do you see for such companies and their share prices?" his evasive reply was – "We currently do not own any of these shares." We have seen plenty of such replies in the last year.

Caselet 2

Read the following caselet carefully and answer the following questions:

9. What are the pros and cons of investing in a heavy weight like Cisco, which was at one time considered a clear winner?

(6 points)

10. In the context of the caselet, discuss the importance of studying the portfolio composition before investing in different mutual funds.

(7 points)

The whole idea of investing in a mutual fund is that it spreads your money broadly among many stocks, so your assets aren't pegged to the fate of just one company. But that's one of the many rules that Cisco breaks. A week ago the networking behemoth, which has managed to buy enough competitors to keep growing like a burgeoning small-cap despite its girth, told the world that it earned less than Wall Street analysts expected in its second quarter due to slowing demand, and admitted it might be entering a blue period for a quarter or two. It was Cisco's first earnings disappointment in three years, and a shot heard round the fund world, illustrating the scope of the company's influence and funds' vulnerability to weakness in their favorite stock.

In January, big Cisco holders like tech funds, telecom funds, big-cap growth funds and the Nasdaq 100 were all in the black, but after Cisco's disappointment thumped their shares, all are in the red for the year. Over the last week, tech funds, telecom funds and big-cap growth funds are the worst performing fund categories, losing 8.8 percent, 6.5 percent and 3.4 percent, respectively, according to Morningstar.

To understand why these funds tumbled so quickly, you need to understand the depth of fund managers' love for Cisco's shares, which have averaged a 43 percent gain over the last five years, beating the S&P 500 by more than 26 percentage points.

Some bought the stock because it's the market leader in the thriving networking space. Some bought the stock because it comprises more than 2 percent of the S&P 500 and not owning it was a big bet against the benchmark. The bottom line is that they bought shares in droves.

"Cisco was pretty much a must-own for many funds," says Morningstar senior analyst Christine Benz. "I think it was a rare large-cap growth fund that didn't have exposure to the stock. Also for large-cap blend funds, too, since many of those need a very good reason for underweighting a big part of the S&P 500. I think even to value managers playing catch-up, Cisco looked like the one quick fix they could trust."

Indeed, more than 75 percent of big-cap growth and big-cap blend funds owned shares at the end of January, according to the most recent portfolio reports submitted to Morningstar. In total, nearly 1,200 funds own Cisco shares, adding up to an 18 percent stake in the company.

If Cisco's pain were limited to its shares alone, it would be easier for funds to shrug off. But when the once bulletproof shop fell victim to a slowing economy and dipping corporate tech spending, it gave investors reason to worry about other companies' prospects. Firms like Applied Micro Circuits, Sycamore Networks and PMC-Sierra fell, too.

For an idea of the ripple effect, consider Cisco's effect on the tech-laden Nasdaq 100 Index where the networker's shares are a 6.4 percent position. From Jan. 1 until Cisco's announcement, the Nasdaq 100 was up nearly 6 percent; since that it has fallen more than 7 percent, dragged down by Cisco's 17.3 percent tumble, according to Thomson/Baseline Financial. The index's fall has real consequences because it's tracked by Nasdaq 100 Trust Shares, an exchange-traded fund where investors have more than \$23 bn invested.

Furthermore, a look at the Cisco-heavy funds we highlighted on the night Cisco announced its miss shows how much one stock can rattle a fund's performance. Consider the broker-sold MFS Emerging Growth fund, a big-cap growth fund with \$15.5 bn spread among more than 300 stocks. At the end of last year, the fund had 9.8 percent of its assets in Cisco shares. Though it was up more than 7 percent this year prior to Cisco's announcement, that year-to-date gain is now down to just 1.2 percent, according to Morningstar.

Of course, this doesn't mean fund managers weren't smart to buy Cisco and that they're dumb now to have hung onto it. After all, it made both them and you a lot of money over the past few years, and one or two rough quarters aren't necessarily reason to abandon ship.

Much as we'd like to think our funds are kinder, gentler stock investments, they are going to take their lumps like everyone else when the market darling takes a tumble.

Caselet 3

Read the following caselet carefully and answer the following questions:

11. Since equity is a long-term investment, should the performance of equity fund managers be measured only once in a few years? Explain.

(6 points)

12. While a fall in interest rates may push up the NAVs of bond funds, does that represent real gains to the investors? Explain.

(7 points)

13. Can you think of a method other than risk-adjusted performance method for measuring the performance of a bond portfolio manager? Describe it.

(6 points)

Like everything else in the technology world, the returns from technology funds too have been ephemeral. The tech meltdown has wrecked havoc across all portfolios, independent of the underlying quality of stocks. The Value Research category of technology funds has posted a loss of 32.55 percent in the last six months. The seven technology funds launched in 2000 are trading below par, and even a significant cash position has failed to stem the slide. Birla IT and Tata IT, converts from the diversified equity category have witnessed the sharpest loss.

Equity – Specialty

It is not gloom everywhere though, with two of UTI funds making it to the top of Value Research Specialty category and more importantly, with positive returns. UTI Services Sector, despite a 70 percent exposure to technology stocks has emerged a net gainer with an impressive return of 42.04 percent, thanks to a small asset base and aggressive management. UTI Petro is the other top gainer in the category, with a return of 33.9 percent. The recent interest in oil PSUs with talks of divestment has worked well for the fund. JM Basic is the other top gainer in the category with a one-year return of 41.79 percent.

Balanced Funds

Value Research category of balanced funds posted an average loss of 11.79 percent in 2000. It is UTI all the way here with Unit Scheme '95 topping the charts with a net gain of 26.36 percent in calendar 2000. However, not much is known about the portfolio quality and investment style of the fund for lack of disclosure. Kothari Pioneer Pension Balance, with its predominant investment in debt and gradual equity exposure in a falling market, has posted a gain of 9.95 percent in the last calendar.

Two of LIC Mutual Fund schemes – Dhanvidhya and Dhanasahayog are top losers with a fall of 36.53 percent and 29.12 percent, respectively. Magnum Balanced, the aggressive fund from SBI has shed 30.50 percent with an average equity exposure at 70 percent. While these returns will surely leave you unnerved, one-year returns should not be a reference point for determining your future stay in a fund. For this would mean that you are letting short-term circumstances guide your long-term investment priorities. Equity investments are ideally recommended as long-term investment vehicles and a glance at three-year returns from these funds shows that most of them are still in the pink of health.

Debt Markets

While it was a relatively calm 2000 for the bond markets, these markets did have their share of volatility. The year started with a bang with the Public Provident Fund (PPF) rate cut setting the ground for the mother of all rallies. Except for a brief period in March, the rally continued unabated with the bank rate cut in April adding to the momentum.

However, increasing oil prices, the drought-like situation, a sliding rupee and the burgeoning fiscal deficit joined hands to set the placid markets on fire. In a perfect foil to its stance earlier in the year, Reserve Bank of India hiked the bank rate in a bid to defend a falling rupee. However, the IMD issue from SBI with over \$5 bn in subscription, salvaged the debt markets. Although it's a short-term measure for a long-term problem, the inflows have surely buoyed the sentiment.

Bond prices react positively to interest rate cuts and shed value when rate goes up. As the outlook on interest rates swung during the year, the Value Research category of medium-term debt funds too oscillated between the prospect of an annualized gain of 26.28 percent in February and a 3 percent annual loss in July. The realization

that the debt markets can also throw up a nasty surprise finally dawned on the investors. Amid these fluctuations, it was actually the year of the cash funds, which have logged a gain of 9.21 percent in calendar 2000.

Debt – Medium-term

With the sentiment in the debt markets taking a U-turn, debt funds were relatively better off by the year-end with the Value Research category of bond funds posting a net gain of 10.78 percent. PNB Debt, the gilt fund in disguise, has emerged the top winner to post a return of 14.51 percent in 2000. The other top gainer, LIC Bond fund has posted a gain of 13.22 percent in 2000 on the back of a lower quality portfolio.

Tata Income Growth Option, which till recently held an equity exposure, has lagged behind its peers with a return of 7.64 percent. It's a tale of two funds at Dundee AMC. Dundee Bond PSE and Dundee Bond Corporate, the companion funds managed by the same fund manager have thrown up diametrically opposite performances. While Dundee Bond PSU is in the top league with a return of 14 percent, Dundee Bond Corporate is way down the order with a one-year return of 8.76 percent.

END OF PART E

END OF QUESTION PAPER

Suggested Answers

Portfolio Management and Mutual Funds - II : July 2001

Part D : Case Study

1. The inconsistencies are as follows:
 - a. If the balance of payments position is due to deteriorate, the rupee will not be stable.
 - b. If internet stocks are not going to perform well, there is no point in investing 15% in them.
 - c. Stipulating that a company should have been listed on the Bombay stock exchange for at least 10 years will eliminate most of the internet stocks and software stocks, in which investment is proposed.
 - d. Stipulating a high ratio of turnover to market capitalization may result in choosing operator driven speculative stocks.
 - e. The required beta of 1.20 will eliminate all possible investments in defensive stocks.
 - f. Investing at least 50% in equities always may not be desirable. Sometimes increasing the debt proportion may become necessary, depending on the market conditions.
 - g. If the credit conditions are easy and interest rates are low, top rated companies may not pay 14% on their debentures.
 - h. Trading in debt instruments is as yet not very active. This may seriously limit the investments in debt.
 - i. The minimum duration of 5 years conflicts with investment in T-bills, which have a maturity of less than a year.
 - j. Call money investments may not yield 9% or more except when there is a liquidity crunch. Thus, this avenue may not be available when liquidity conditions are easy, as predicted.

2. Using single index model the expected return, $R_i = \alpha + \beta R_m$

Stock	R_i	$R_i - R_f$	β	$\frac{R_i - R_f}{\beta}$	Rank
ACC	17.04	9.04	1.30	6.95	3
TISCO	12.63	4.63	0.95	4.87	5
RELIANCE	16.89	8.89	1.25	7.11	2
SBI	13.26	5.26	0.96	5.48	4
HDFC	19.12	11.12	1.45	7.67	1

Rank	Stock	$\frac{R_i - R_f}{\hat{\sigma}_i}$	β	$\sigma_{e_i}^2$	$\frac{(R_i - R_f)\hat{\sigma}_i}{\sigma_{e_i}^2}$	$\frac{\hat{\sigma}_i^2}{\sigma_{e_i}^2}$	$\sum \frac{(R_i - R_f)\hat{\sigma}_i}{\sigma_{e_i}^2}$	$\sum \frac{\beta^2}{\sigma_{e_i}^2}$	$C_i = \frac{\sigma_m^2 \sum \frac{(R_i - R_f)\hat{\sigma}_i}{\sigma_{e_i}^2}}{1 + \sigma_m^2 \sum \frac{\hat{\sigma}_i^2}{\sigma_{e_i}^2}}$
1	HDFC	7.67	1.45	214.62	0.07517	0.00980	0.07517	0.00980	5.044
2	RELIANCE	7.11	1.25	56.25	0.19752	0.02778	0.27269	0.03758	6.389
3	ACC	6.95	1.30	225.00	0.05219	0.00751	0.32488	0.04509	6.473 C*
4	SBI	5.48	0.96	134.56	0.03754	0.00685	0.36242	0.05194	6.354
5	TISCO	4.87	0.95	63.20	0.06954	0.01428	0.43196	0.06622	6.056

Hence optimum equity portfolio should be made from HDFC, RELIANCE and ACC.

The proportions to be invested in the three stocks could be calculated as under:

$$Z_i = \frac{\beta_i}{\sigma_{e_i}^2} \left[\frac{R_i - R_f}{B_i} - C^* \right]$$

Z_{HDFC}	$=$	$\frac{1.45}{214.62}$	$[7.67 - 6.473]$	$=$	0.00809
Z_{RELIANCE}	$=$	$\frac{1.25}{56.25}$	$[7.11 - 6.473]$	$=$	0.01416
Z_{ACC}	$=$	$\frac{1.30}{225.0}$	$[6.95 - 6.473]$	$=$	0.00276
Total Z				$=$	0.02501

Hence, proportion to be inverted in

HDFC, W_H	$= 0.00809/0.02501$	$=$	0.3235 i.e. 32.35%
RELIANCE, W_R	$= 0.01416/0.02501$	$=$	0.5662 i.e. 56.62%
ACC W_A	$= 0.00276/0.02501$	$=$	0.1103 i.e. 11.03%

3. The beta of the equity portfolio, $W_H \times \beta_H + W_R \times \beta_R + W_A \times \beta_A$
- | | | |
|--|-----|--|
| | $=$ | $0.3235 \times 1.45 + 0.5662 \times 1.25 + 0.1103 \times 1.30$ |
| | $=$ | 1.32 |
| Beta of the total portfolio, $\beta_p = W_e \beta_e$ | $=$ | $0.60 \times 1.32 = 0.792$ |
| Desired beta after increase | $=$ | $0.792 \times 1.1 = 0.87$ |
- $$1.32 \times 300 + 0 \times 75 + 0 \times 125 + 1 \times \frac{357000}{10^7} \times x = 500 \times 0.87 \text{ [As corpus of fund is Rs.500 crore]}$$
- $$\Rightarrow x = \frac{(435 - 396) \times 10^7}{357000} = 1092.4 \text{ i.e. } 1093 \text{ contracts}$$
- Hence, 1093 futures contract should be bought for attaining desired beta.

4. The total amount required, say, three years from now is Rs45 lakhs. Taking a debt-equity ratio of 2 : 1, the amount of equity to be brought in by Mohan will be around Rs.15 lakhs and the rest can be borrowed from institutions and banks. The amount currently available is Rs.8 lakhs, which means that a return of 23.31% will be required over the next three years. Such a high return can be earned only from equity investments and not from debt. But, equity carries the risk of loss of the original investment. If Mohan is not inclined for that risk, even at the cost of not getting the required amount, he may choose debt. The decision on the amount of debt (if at all) also depends on the amount of money that he may be able to raise from other source, if necessary.

The scheme being floated by AAMC is a balanced scheme. So, the returns from the scheme may not be as high as 23% unless security market perks up and the fund is managed very well. In this scheme, there is a big drag on returns in the form of high investment in government securities. The scheme thus gives moderate returns and hence may not be suitable.

5. Fund managers can use index futures in the following five portfolio strategies:

1. Asset allocation
2. Yield-enhancement
3. Modification of portfolio risk
4. Futures as substitute for indexing
5. Hedging.

Asset Allocation

Asset allocation refers to the optimal placement of the portfolio money in various financial instruments like stock, bond, real estate, and cash to suit the needs of individual investors. The asset allocation can also be managed either actively or passively. Futures provide a good means to actively manage the asset allocation and increasing the benefits of that decision in terms of additional return for a given level of portfolio risk.

Yield Enhancement

A cash market security that is deliverable for a future contract can be synthetically created by using a position in the futures contract. The yield on the synthetic security should be the same as the yield on the cash market instrument. If there is a difference between the two yields, it can be exploited to enhance the yield on the portfolio.

Modification of Portfolio Risk

Buying or selling a futures contract has effect on a portfolio's upside risk as well as downside risk by an equal magnitude. The price of the future moves along with the price of the underlying asset or index. In simple terms, the price change of the futures contract will be highly and positively correlated with the price change of the underlying asset or index.

Futures as a Substitute of Indexing

One form of the application of the stock index futures is to construct a market portfolio whose composition resembles the composition of a stock market index. This kind of the portfolio management strategy is called passive management strategy because it ensures a return equal to the return expected from a market index.

Hedging

Pension funds, mutual funds, life insurance companies, bank trust funds, endowment funds invest huge amount of money in the stock. Whenever there is a fall in the stock price, portfolio managers want to reduce their exposure in the stock. There are several ways this can be done. Simply selling the stock and repurchasing it later is one way. But this strategy involves substantial costs. It is relatively expensive to buy and sell stock because of the transaction costs in the form of bid-ask spreads and commissions. Again trading in large amount of stock can influence the market, resulting in poor realizing prices. Hedging with futures basically involves taking a position in futures as a temporary alternative for transactions to be executed in the cash market. Hedging tries to avoid price risk by trying to fix the price of the transaction to be made at a later date.

Part E : Caselets

Caselet 1

6. Churning a portfolio means making frequent changes in the securities invested in by repeated buying and selling. It also involves changing the allocation made to different categories and different securities. If we do not churn then it will reduce the transaction costs, but at the same time it will also result in the portfolio not being in consonance with the portfolio objectives and the market trends. If the desired allocation of a portfolio between equity and debt is 50% each, then, whenever the proportions changes, the allocation has to be adjusted. If not, the allocation will be different from what the investor needs. Consequently, the risk level of the portfolio and also the return it earns will also be different from the what the investor wants. And, the allocation will be out of tune with the market trends. If it can be expected with reasonable accuracy that stocks are going to fall, switching over to bonds will be a natural conclusion. Not doing so can result in losses. Therefore, the investment manager should always make a trade off between the frequency of transactions, the costs involved and the gains of maintaining a suitable portfolio.
7. With the crash of the new economy stocks, the portfolio managers have found that the old economy stocks have performed much better in comparison. If they have to switch out of new economy stocks, the alternative available is old economy stocks, assuming all stocks are classified into new economy and old economy stocks. The new economy stocks have been falling as if there is nothing to stop their fall. In comparison, the fall of the old economy stocks, where they have fallen, was less steep. So portfolio managers have to naturally switch out of the new economy stocks. And if they have to stay invested in equity, the alternative left is to invest in old economy stocks.
8. The circumstances in which switching out of a sector into another is justifiable are as follows:
 - a. The risk level of the industry changing significantly and becoming unsuitable for the investor
 - b. The risk appetite of the investor changing and the sector becoming thus unsuitable.
 - c. The return possible from the sector changing significantly
 - d. The return required by the investor changing significantly.

Caselet 2

9. The pros of investing in a company like Cisco are:
- If the company performs well, as expected, there will be substantial gains.
 - The portfolio manager will not be blamed for not investing in what is widely believed to be a good stock.
- The cons are:
- The price fall of such companies is generally steep when they go out of fancy. Not being able to identify the time when that happens can result in high losses.
 - The portfolio manager may get lost in the positive opinion about the stock and invest too much in it and may also stop monitoring for adverse changes in the condition of the stock.
10. As given in the caselet, Cisco is one of the stocks in which most funds invested. So if an investor chooses different mutual funds with similar portfolio allocation, he will be investing in similar securities again and again. That is, he will not derive any benefits from diversification. Thus, the objective of the investor in investing in different stocks will be lost. Therefore it is very important to study the portfolio allocation of different mutual funds.

Caselet 3

11. The changes in intrinsic values of equity stocks generally happen over an extended period of time. But, it does not mean that the performance of portfolio managers should also be measured over a long time horizon. The performance of the portfolio manager should be measured both in the short run and the long run.
- The performance of a portfolio manager is measured by the returns earned from the entire portfolio and not based on individual stocks. So, in a portfolio, there may be stocks which are in different phases and are held for different time periods. Another point to be noted is that the returns from stocks, in the short run, are influenced more by short term market sentiments. Measuring the performance of the portfolio manager in the short run gives an idea of whether he had been able to obtain reasonable returns in the short run or not. The ideal duration at the end of which the performance of a portfolio manager should be measured has always been a moot point.
12. A fall in interest rates pushes up the prices of bonds and hence the NAVs of bond funds also increase. This is because of the capital gains. But, this increase in the NAVs cannot be sustained in the long run because the interest income that the fund can earn in future will be lower. While prices of bonds may increase, the returns that can be earned from bonds in the long run do not increase – they actually decrease because the reinvestment income from the bonds will be lower. Thus, in the long run, investors do not make any real gains due to the fall in interest rates.
13. One possible way of doing it is to determine the amount invested in instruments of different credit qualities. If weightages are attached to the credit quality, then a weighted average of the portfolio can be arrived at. For credit quality below a specific level, a discount can be applied to the yield achieved.