# SUGGESTED SOLUTIONS

## 21404 – Strategic Financial Management

CA Professional (Strategic Level II) Examination
June 2014

**THE INSTITUTE OF CHARTERED ACCOUNTANTS OF SRI LANKA**

**Answer No. 01**

(a) When the management decides to retain profits without being distributed to shareholder by means of dividends it should ensure that the company is in a position to reinvest such funds in investment for a return not less than the cost of capital of the company.

When there are no investment opportunities offering a return commensurate with the required rate of return, management may decide to return earnings by means of dividends to shareholders allowing them to look for investment opportunities that could generate their required rate of return.

The other alternative way of using the retained earnings is to buy back company's own shares. This will ultimately increase the market value per remaining share. The prevailing TB rates are low. A low-yield Treasury Bill Rate can mean businesses are enticed to borrow money, meaning that they will have more money to spend . However when there are no other investment opportunities buying back shares rather than investing in TB's hare repurchase is more beneficial for the Company.

Shareholders and management can have other reasons for wanting to buy back shares:

- A change in the relative weighting of shareholders between those who refuse to sell the shares to the company for reasons of control (i.e. in order to increase their percentage of ownership) and those who agree to sell some of their shares, hopefully at above their market value.
- Tax reasons, as it is often less costly for shareholders to get cash in the form of a share buyback than in the form of dividends;
- To send out a positive signal, i.e. that management considers the company to be undervalued. Buying back shares and cancelling them increases the value of the remaining shares.
- Leverage from debt, for the related tax benefits. This is not a very compelling motivation, as it overlooks the fact that debt and equity become riskier after a share buyback and thus more costly. The tax benefit is often illusory, especially as the company loses some financial flexibility. If share buybacks reduce WACC, companies would always be massively buying back their shares.
- Building up a reserve of shares to be used later for stock option awards or as a currency for an acquisition.
- Smoothing out share price fluctuations in the case of listed companies. But whatever is bought can be resold, and such buybacks, which are often in tiny doses, are tightly regulated by market authorities;

(b) **Reasons for Delisting**

(i) The company no longer satisfies the listing rules of the stock exchange.
(ii) Maintaining a listing entails various costs which may no longer be justifiable, particularly for smaller, undervalued companies.
(iii) Ongoing expenditure relating to financial reporting requirements, ad hoc disclosures, investor relations.

(iv) A delisting also releases the company from certain transparency and disclosure obligations.
(v) A delisting provides strategic and financial freedom for the Company
(vi) Long-term strategic planning is facilitated as short-term considerations of yields become less important with delisting
(vii) Restructurings may be carried out with less public attention
(viii) In the event of a takeover by a strategic investor, a planned consolidation or reorganization can be effected more easily
(ix) Possible bankruptcy situation

Because a delisted stock can be hard to sell, many investors will sell after a delisting announcement, driving the price down. However, there are exceptions e.g. The SKF Group of Sweden, a leader in bearings and seals, intended to delist SKF India from the stock exchanges. Stock prices of SKF India have zoomed up since the announcement on speculation that there may be a counter bid, but settled down after it did not materialise

(c) The consultant has applied PAN's pre-acquisition P/E ratio to the combined earnings of the new group. The difference between the combined market values pre-acquisition (Rs.8,750 MN) and the estimated market value post-acquisition (Rs.12,500 MN) is Rs.3,750 MN. This is SMS's pre-acquisition earnings multiplied by the difference between the company's pre-acquisition P/E and the combined post-acquisition P/E (12.5 - 7.5 = 5). EPS for PAN appears to have increased from Rs. 25 to Rs. 33.33 because of this effect.

In the absence of any synergy or commercial benefits, or the disclosure of new information during the bid, there is no reason why the market value of the combined group should be any different from the total of the two individual companies' market values, i.e. Rs.8, 750 MN.

This would suggest the following post-acquisition prices per existing share:
PAN (Rs.8,750 MN x 33%) / 10 mn = Rs. 289
SMS (Rs.8,750 MN x 67%) / 30 mn = Rs. 195

There is a transfer of wealth from PANs shareholders to SMS's shareholders because the terms of the offer are slightly more generous than the ratio of the old share prices. Therefore, assuming efficient markets, PAN's share price will fall.

The pre-acquisition prices suggest 9 for 15, not 10 for 15.
PAN = 312.5 @ 9 = Rs. 2,813
SMS = 187.5 @ 15 = Rs. 2,813

| | PAN | SMS | Combined firm |
|---|---|---|---|
| **PRE ACQUISITION** | | | |
| EPS (Rs.) | 25.00 | 25.00 | 33.33 |
| PE Ratio | 12.50 | 7.50 | 12.50 |
| MV per share (Rs.) | 312.50 | 187.50 | 416.67 |
| Number of Shares | 10,000,000 | 30,000,000 | 30,000,000 |
| Earnings (Rs.) | 250,000,000 | 750,000,000 | 1,000,000,000 |
| Market Value (Rs.) | 3,125,000,000 | 5,625,000,000 | 12,500,000,000 |

| **POST ACQUISITION** | | | |
|---|---|---|---|
| New shares issues | - | 20,000,000 | NA |
| Ownership | 10,000,000 | 20,000,000 | 30,000,000 |
| Ownership % | 33% | 67% | 100% |
| Market value | 4,125,000,000 | 8,250,000 | 12,500,000,000 |

(d)

| | |
|---|---|
| Current Market Value | 8,750,000,000 |
| Immediate Savings | 1,500,000,000 |
| Restucturing Expenses | (250,000,000) |
| VRS Expenses | (500,000,000) |
| Sale of assets in Y1 | 1,250,000,000(1,400,000,000x0.8928 |
| Increase in Net profits | 3,333,333,333 (400,000,000/.12) |
| Increased value after announcements | 14,083,333,333 |

New price per share

| | Ownership | SP |
|---|---|---|
| PAN | 33% | 465 |
| SMS | 67% | 315 |

It is extremely important to recognize the effect of Share Distribution in the Merger and the table above indicates that the merger proposal would upset the controlling interest of PAN which will not be favourable consideration by the management and shareholders of PAN Compared with the current market prices of both PAN and SMS, as given below, the post acquisition position has clearly improved:

| | Pre Price (Rs.) | Post price (Rs.) |
|---|---|---|
| PAN | 312.50 | 465 |
| SMS | 187.50 | 315 |

**Answer No. 02**

(a) (i)

| | | | | |
|---|---|---|---|---|
| Debtors | ⟶ | US $ 20 mn x 3/12 | = | US $ 5 mn |
| Inventory | ⟶ | US $ 20mn x 90% x 2/12 | = | US $ 3 mn |
| | | Cost of sales | | |
| Creditors | ⟶ | US$ 20mn x 90% x ½ | = | US $ (0.75)mn |
| | | 12 | = | US $ 7.25mn |

Finance cost = US$ 7.25mn x 4% = US $ 290,000

(ii)

| | | |
|---|---|---|
| Maximum credit exposure | = | US $ 5mn x 0.80 x 30% |
| | = | US$ 1.2mn (only from beyond border) |
| Other debtors | = | Zero credit risk due to bank guarantee. |
| ∴Total credit exposure | = | US $ 1.2mn |

(iii)

| | |
|---|---|
| Impact on bottom line SLECIC premium | = US$ 1.2mn x 0.45% |
| | = US$ 5,400 |
| However, the credit risk is eliminated | |
| bottom line | = US $ 20 mn x 2.5% - US$5,400 |
| | = US $ 494,600 |

Yes, although the premium is around US $ 5,400, the credit exposure of US$ 1.2mn is nullified. Hence its fully worthwhile to obtain a SLECIC cover.

(b)

Net proceeds on sales, in the event of factoring, Face amount of receivable US$4,000,000
Non-recourse fee (1.25%) = US$50,000
Factoring fee (0.03 x 4,000,000) = US$ 120,000
Est. Net proceeds on sale = 4,000,000-170,000 = US$ 3,830,000

Advantages of factoring under a non-recourse agreement

- Avoid losses due to unpaid invoices
- Improve cash flow - immediate cash upon presentation of invoices
- Alternative means of financing without providing additional securities
- Concentrate on your core business and leave the debt collection to the factor
- Increase commercial competitiveness
- Improve Balance Sheet ratios

(c)

- Forward contracts and futures (agreements made to exchange or sell foreign currency at ascertain price in the future)

- Swaps (agreements to simultaneously exchange or sell an amount of foreign currency now and resell or repurchase that currency in the future)

- Options (instruments that provide the option, but not the obligation, to buy or sell foreign currency in the future once the value of that currency reaches a certain, previously agreed, price)

- Back-to-back loans – with back to back loans two parties, each in a different country, lend money to each other in an effort to hedge against currency risk. They are also called parallel loans.

- Letters of credit - An LC, also referred to as a documentary credit, is a contractual agreement whereby the issuing bank (importer's bank), acting on behalf of the customer (the importer or buyer), promises to make payment to the beneficiary or exporter against the receipt of "complying" stipulated documents.

- Guaranties typically refer to financial guarantees of debt that cover the timely payment of debt service, i.e. guarantees cover losses in the event of a default on debt service. There are ratios types of guarantees for mitigating foreign exchange risk.

**Answer No. 03**

(a) $Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 0.999X_5$

$= 1.2 \times \frac{40}{70} + 1.4 \times \frac{10}{70} + 3.3 \times \frac{5}{70} + 0.6 \times \frac{15}{35} + 0.999 \times \frac{50}{70}$

$= 0.685 + 0.2 + 0.236 + 0.257 + 0.713$

$= 2.091$

the Z Score is between 1.81 – 2.99

Thus Tragico is not facing bankruptcy, but is heading towards financial difficulties.
For a company to be financially healthy it has to have a higher score than 2.99.

(b) (i) Youth = 20mn x 40%
= 8mn people

Target youth = 8 mn x 60% = 4.8mn

50% market share = 50% x 4.8mn = 2.4mn

1% market share = 1% x 2.4mn
= No of sales of cameras 24,000

Average selling price = Rs. 20,000
Sales = 24,000 x 20,000 = Rs. 480mn
Gross profit = 480 x 20% = Rs. 96mn

Since only 50% of the market is penetrated currently, there is an opportunity for Tragico to compete

(ii)

| | | Rs. million |
|---|---|---|
| Gross Profit | = | 96 |
| Overhead & finance | = | (56) |
| Profit before tax | = | 40 |
| Tax @ 28% | = | (11.2) |
| Profit after tax | = | 28.8 |
| | | ====== |

(c)

| Before rights issue | | | Rights issue 2:1 @ 5 | Post rights |
|---|---|---|---|---|
| Prishan | 1.5 mn x 51% | = 765,000 | 1,530,000 | 2,295,000 |
| Japanese | 1.5 mn x 39% | = 585,000 | 1,170,000 | 1,755,000 |
| Public | 1.5 mn x 10% | = 150,000 | 300,000 | 450,000 |
| | | 1,500,000 | 3,000,000 | 4,500,000 |
| | | ======= | ======= | ======= |
| @ Rs. 10 | Rs. 15 mn | | @ Rs. 5 Rs. 15 mn | Rs. 30 mn |

New shareholder structure in Rupees

| | | Rupees (mn) |
|---|---|---|
| Prishan (765,000 @ Rs. 10) + 1,530,000 @ Rs. 5 | = | 15.3 |
| Japan (585,000 @ Rs. 10) + 1,170,000 @ Rs. 5 | = | 11.7 |
| Public (150,000 @ Rs. 10) + 300,000 @ Rs. 5 | = | 3.0 |
| | | 30.0 |

(d) Japanese partner has infused ⟶ 1,170,000 x Rs.5 = Rs. 5.85 mn on rights

He purchased 39% stock = Rs.15.00 mn

Rs.20.85 mn

**Answer No. 04**

**Statement of Financial Position**

| | Malaysian Company MYR (MN) |
|---|---|
| Non Current Assets (NBV) | 105 |
| Current Assets | 55 |
| Current Liabilities | (31) |

**Income Statement**

| | Malaysian Company MYR (MN) |
|---|---|
| Revenue | 184.3 |
| Operating Expenses | 133.0 |
| Depreciation | 39.0 |
| Interest Expense | - |
| Profit Before Tax | 12.3 |

**Cost of capital**

| | |
|---|---|
| Beta | 0.9 |
| Risk free rate | 7.5% |
| Risk Premium | 5% |
| Cost of capital | 12.0% |

**Exchange Rates**

$$F = \left\{ \frac{1 + rFC}{1 + rDC} \right\} \times S$$

$$Y_1 = 40 \times \frac{1.075}{1.04}$$

$$= 41.35$$

$$Y_2 = 41.35 \times \frac{1.075}{1.04}$$

$$= 42.74$$

| **Disposal Value of subsidiary** | | | |
|---|---|---|---|
| | Malaysian Company | | Disposal value |
| | MYR (MN) | | Mn |
| Non Current Assets (NBV) | 105 | 60% | 63.00 |
| Current Assets | 55 | 90% | 49.50 |
| Current Liabilities | -31 | 100% | 31.00 |
| | | | 81.50 |
| Exchange Rate | | | |
| LKR Value | | | 3,260 |

**OPERATING CASH FLOWS**

| **INCOME STATEMENT** | Year 0 | Year 1 | Year 2 |
|---|---|---|---|
| | MYR (MN) | MYR (MN) | MYR (MN) |
| Revenue | 184.30 | 216.92 | 255.31 |
| Operating expenses | 133.00 | 149.42 | 167.87 |
| Cash flow | 51.30 | 67.50 | 87.44 |

| **Year** | **0** | **1** | **2** |
|---|---|---|---|
| Mill cost | (-131.25) | | |
| Operating cash flows | 0 | 67.50 | 87.44 |
| Residual Value | | | 140.00 |
| | (-131.25) | 67.50 | 227.44 |
| Exchange rate | 40 | 41.35 | 42.74 |
| Cash flows in LKR (Mn) | (5,250) | 2,791 | 9,720.79 |
| Discounting factor @ 12% | 1 | 0.8929 | 0.7972 |
| | | | |
| NPV IN LKR | (5,250) **(½)** | 2,492 | 7,749 |
| NPV | 4,991 | | |

**Summary**

| | |
|---|---|
| NPV over next two years | 4,991 |
| Current Disposal value | 3,260 |
| Net NPV | 1,737 |

**Conclusion**

The Malaysian operation seems profitable running for further 2 years due to the fact that it can generate a positive NPV which is greater than the current disposal value (4,991 MN – 3,260 MN MYR).

(b) Dividend payout decision is among the basic policy confronting corporates especially on how much to pay. A number of conflicting theoretical models define current attempt to explain corporate dividend behavior. One faction see dividend as attractive and as a positive influence on share price, the second group believes that share prices vary inversely with dividend payout level and the third group believes that dividend policy is irrelevant on share prices

Dividend policy is concerned with financial policies regarding paying cash/stock dividend in the present or paying an increased dividend at a later stage. Whether to decline dividends and what amount, is determined mainly on the basis of the company's unappropriated profit (excess cash) and influenced by the company's long-term earning power. When cash surplus exists and is not needed by the firm, then management is expected to pay out some or all of those surplus earnings in the form of cash dividends or to repurchase the company's stock through a share buyback program.

If there are no NPV positive opportunities, i.e. projects where returns exceed the hurdle rate, and excess cash surplus is not needed, then – finance theory suggests – management should return some or all of the excess cash to shareholders as dividends. This is the general case, however there are exceptions. For example, shareholders of a "growth stock", expect that the company will, almost by definition, retain most of the excess earnings so as to fund future growth internally. By withholding current dividend payments to shareholders, managers of growth companies are hoping that dividend payments will be increased proportionality higher in the future, to offset the retainment of current earnings and the internal financing of present investment projects.

Management must also choose the form of the dividend distribution, generally as cash dividends or via a share buyback. Various factors may be taken into consideration: where shareholders must pay tax on dividends, firms may elect to retain earnings or to perform a stock buyback, in both cases increasing the value of shares outstanding. Alternatively, some companies will pay "dividends" from stock rather than in cash. Financial theory suggests that the dividend policy should be set based upon the type of company and what management determines is the best use of those dividend resources for the firm to its shareholders. As a general rule, shareholders of growth companies would prefer managers to have a share buyback program, whereas shareholders of value or secondary stocks would prefer the management of these companies to payout surplus earnings in the form of cash dividends

Many firms choose to pay no dividends and these firms sell at positive prices. For example, most Internet firms, such as Amazon.com, Google, and eBay, pay no dividends. Rational shareholders believe that either they will receive dividends at some point or they will receive something just as good. That is, the firm will be acquired in a merger, with the stockholders receiving either cash or shares of stock at that time. Of course, the actual application of the dividend discount model is difficult for firms of this type& clearly the model for constant growth of dividends does not apply. Though the differential growth model can work in theory, the difficulties of estimating the date of first dividend, the growth rate of dividends after that date, and the ultimate merger price make application of the model quite difficult in reality. As a result one should look at the same industry other

entities with typical dividend payout being maintained and always make adjustments to own cost of capital figures before finalizing on a cost of capital figure on its own.

Empirical evidence suggests that firms with high growth rates are likely to pay lower dividends, a result consistent with the analysis here. For example, consider McDonald's Corporation. The company started in the 1950s and grew rapidly for many years. It paid its first dividend in 1975, though it was a billion-dollar company (in both sales and market value of stockholders' equity) prior to that date. Why did it wait so long to pay a dividend? It waited because it had so many positive growth opportunities (additional locations for new hamburger outlets) to take advantage of. In the Indian context also, there exist a large number of similar examples. The software giant, Infosys Limited, till a few years back, did not pay any dividends ensuring that all the earnings were reinvested for its growth opportunities. High growth telecom companies, such as Tata Telecom and Bharti Airtel, are also examples of companies which have avoided paying dividends.

**Answer No. 05**

(a) (i) The current cost of capital of SP in terms of the CAPM

$$r_{SP} = r_f + \beta_{SP}(MarketRisk\ \Pr emium)$$
$$r_{SP} = 6.3 + .69(8.5)$$
$$r_{SP} = 12.165$$

Required Rate of return for the Beer sector

$$r_{Beer} = r_f + \beta_{Beer}(MarketRisk\ \Pr emium)$$
$$r_{Beer} = 6.3 + 1.38(8.5)$$
$$r_{beer} = 18.03\%$$

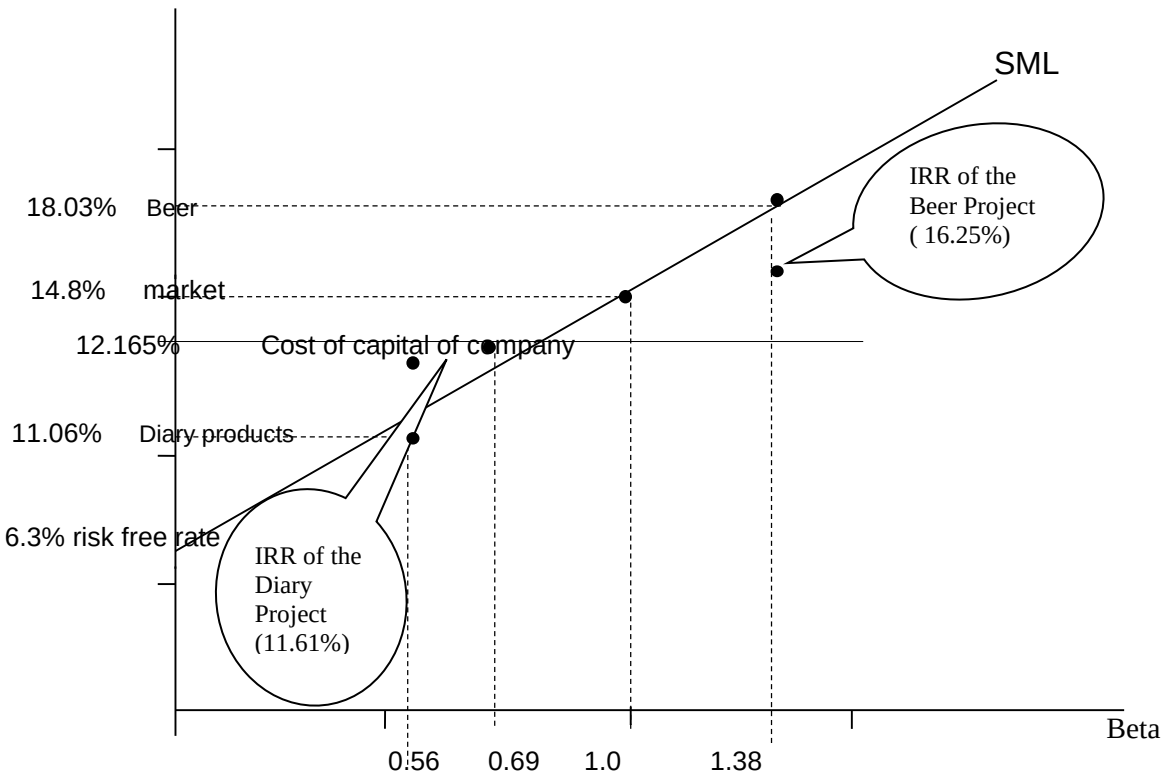
Required Rate of return for the Diary sector

$$r_{Diary} = r_f + \beta_{Diary}(MarketRisk\ \Pr emium)$$
$$r_{Diary} = 6.3 + .56(8.5)$$
$$r_{Diary} = 11.06\%$$

Rate of return of the market portfolio

$$r_{Market} = r_f + \beta_{market}(MarketRisk\ \Pr emium)$$
$$r_{Market} = 6.3 + 1.0(8.5)$$
$$r_{Market} = 14.8\%$$

(ii)




(iii) It is wrong to compare newly proposed investments' IRRs with the company's cost of capital. The company's cost of capital represents the business risk of the Food Processing sector. Newly proposed two projects are into the beer and dairy products. Their business risk and required rate of return should be different from the food processing business. The required rate of return for the beer sector is 18.03%, while that of for the dairy sector is 11.06%.

IRR of the beer investment (16.25%) is well below the required rate of return of themsector. The company should not accept this project, though its IRR is higher than the current cost of capital of the Company. On the other hand, IRR of the investment in dairy products (11.6%) is higher than the required rate of return for the sector. So the investment in diary products should be accepted.

(iv)

- Market growth rate
- Market size
- Demand variability
- Industry profitability
- Industry rivalry
- Global opportunities
- Macro-environmental factors

(b) **Real options** could use in investment decisions.It provides an alternative or choice in evaluating a business investment opportunity.e.g. to expand and abandon projects if certain conditions arise, amongst other options. In the real world every business decision is coupled with uncertainty about the future that affects the present value of the projects in consideration. Thus, before making any investment decisions,it is important to consider various approaches to determine whether the investment should be undertaken or not.

Traditional approaches for valuing investment opportunities do not take into account management flexibility to revise its decisions in the future, as well as the interdependence of the project with future investments.

The Real Options Approach attempts to evaluate projects by considering the value of being able to decide among several strategic options-especially when the value of a project is highly dependent on the level of flexibility that it allows. The value of the abandonment option can be estimated by determining the characteristics of the put option:

Example: Estimated initial cost of a project is Rs. 1,000,000 and the Cash Flows thereafter would be perpetual. The project Discount rate is 25%. The project promoter came up with both an optimistic (outcome: Rs. 600,000 p.a) and pessimistic (outcome: Rs.- 300,000 p.a) outlook both having a probability of 50%.

**Optimistic forecast:** -Rs.1,000,000 + Rs. 600,000/.25 = Rs. 1,400,000
**Pessimistic forecast:** -Rs.1,000,000 – Rs. 300,000/.25 = -Rs. 2,200,000

Overall NPV weighing both scenarios = –Rs. 400,000

However, we need to consider the option of abandonment. That is, if he experiences the pessimist outcome it doesn't mean that he needs to continue holding a perpetuity that is losing money. He can abandon it. If we consider this then it would change the NPV of the pessimistic outlook which would in turn change the weighted NPV of both outlooks. The abandonment value is generally a cash value, or equivalent, associated with an investment.

**Optimistic Outlook:** remains the same
**Pessimist Outlook**–Rs. 1,000,000 - (Rs. 300,000/1.25) = -Rs. 760,000

The new weighted NPV considering the option of abandonment:
(Rs. 1,400,000 x .50) + (-Rs. 760,000 x .50) = NPV of Rs. 320,000.

Abandoning the project allows the firm to save itself from further losses, this option can make a project more valuable.

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