23. (1.75 points)

a. (0.75 point)

According to MSA Research, identify three aspects of financial strength that are not captured in the OSFI regulatory solvency ratios and tests.

b. (0.5 point)

Given the following information:

Invested assets at Dec 31, 2011	$182,000
Invested assets at Dec 31, 2012	$198,000

- Net Investment Income: $20,000 for 2011 and 2012
- Other Comprehensive Income: $0 in 2012.

Calculate the MSA Adjusted Investment Yield for 2012.

c. (0.5 point)

Identify the two components of the MSA Overall Diversification Score.

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b) An omission, understatement or overstatement is material if it changes the user's reasonable expectations or the user's decision.

c) = (Reported Reserve – 0.95*min(Reported reserve, APV Claims liability)) * Tax Rate * (1 – PV Factor)

APV Claims liability = Discounted estimate + Pfads = 103,345 + 500 + 7,300 + 4,000 = 115,145

PV Factor = (Discounted estimate + Pfad Discount rate) / Undiscouted estimate = (103,345 + 500)/111,453 = 0.932

Deferred tax asset = (120,000 – 0.95*115,145)*0.35*(1 – 0.932) = 253

Examiner's report:
Candidates performed well on this question and a large proportion of them received full credit. A common mistake was forgetting to include the PfAD for Investment Return Rate in the calculation of the PV factor.

Question 23

Answer key:

a. list of elements:

- subjective analysis of the company's market position
- prospects
- parental support
- sources of capital
- quality and sustainability of reinsurance support
- management quality
- sustainability of earnings

b. Adjusted Investment Yield = 2* (Net Investment Income + OCI)/(Beginning of Year Assets + End of Year Invested Assets – Net Investment Income - OCI)
= 2 * (20,000 + 0)/(182,000+198,000-20,000-0)=11.11%

c.

- Line of Business
- Geographic

Actual candidate answer for full marks:

a)

Parental support
Subjective analysis of the competitive position
Access to reasonable capital

b) Y = (Net II + OCI) * 2 /(Inv Ass + Inv Ass – (Net II + OCI)) = 11.11%

c)

Line of business diversification
Geographic diversification

Examiner's report:
For part a), candidates struggled to get full credit on this question. Many candidates tried to guess the answer or answered by listing some of the MSA ratios.

For part b), the majority of the candidates managed to get full credit. Many candidates failed to include the Other Comprehensive Income in the formula, which resulted in a small point deduction.

For part c), candidates performed generally well on this question.

Question 24

Answer key:

a. Two of the following:

1) Unrated insurers: in other industries, most firms with no debt have no rating. But almost all insurers are rated, except for new firms. It is less expensive to pay for a rating than to demonstrate financial strength individually to others.

2) Reliance by consumers and third parties: Independent agents use ratings to select insurers, and insurers use ratings to select reinsurers. Agents might be sued for providing insurance from a financially weak insurer. Reinsurance officers at primary insurers must evaluate the ability of reinsurers to pay obligations years in the future. They rely on commercial ratings, and an unrated reinsurer might not even be considered.

3) Efficiency: Evaluating financial solidity requires expertise and extensive data. Most agents, underwriters, and even some regulators do not have the time, experience, or resources of the rating agencies to thoroughly research the financial condition of all insurers.

b.

A. M. Best uses the expected policyholder deficit method/ EPD method. Risk-based was given full mark for this question.
Moody's and Fitch use stochastic cash flows to model economic capital.
S&P focuses on principles-based models/internal capital models and ERM practices.

c.

Expected policyholder deficit method:
A.M. Best retains the RBC structure of independent risk categories with a covariance adjustment. Best uses a 1% EPD ratio for all sources of risk. In financial terms, the charge for each risk is the amount of capital such that the cost of a put option offsetting the risk is 1% of policyholder reserves. In conventional insurance terms, the EPD is the pure premium for unlimited aggregate excess-of-loss reinsurance. The EPD ratio is the EPD divided by the market value of held reserves.