.1.

The CFO is correct. The company should undertake the project since it has a positive NPV. The 100 million investment has already been accounted for in the sum up to the project's NPV. If NPV is positive, then the value of revenue (cash inflow) exceeds the costs (cash outflows). The investor makes a profit when revenues are higher than costs. NPV is equal to the actual value of the cash flows less the original costs of the project.

2.

I agree with CEO. It is true that to account for additional risk, the discount rate should be adjusted to reflect risk and this would increase it. The rate will increase if the rate of discount is adjusted to reflect risk. The higher discount rate will result in lower present value. The larger discount rate shows that over time, money is growing faster because of the higher rate of income. The more risky project has a greater rate of discount, raise the present value denominator, which will result in lower present value computation since a bigger profitability margin is expected for the more risky project. The lower current value of the more risky project means fewer resources are needed in advance to match the lower risk effort.

3.

I do not agree with the CFO. She says that the risk of beig sued is idiosyncratic. This is an inherent risk specific to specific stocks. Additionally, the company will incur bankruptcy costs if it defaults on its debt. Although the company is a publicly traded company, the shareholders are not immune to the idiosyncratic risk. Insuring against idiosyncratic risk is therefore not redundant.

4.

The CFO is right. Bonds that would have to be bought back at the rate that it was initially issued for would not have a significant mpact as the interest rates have lowered. However, calling back the fixed rate bod would mean the company pays lower rates and thus the financial impact should be investigated to assess whether the benefits surpass the costs.

5.

The CEO states that since the company is generating more cash than it is investing, the company may need to free some cash and therefore should invest in something even if the return will be lower than the cost of capital. In this aspect, the CEO sis wrong. Investment decisions of a corporation for new projects should always provide a return which surpasses the capital costs incurred by the company for the project funding. Otherwise, a return for investors will not be generated. This will affect the confidence investors have on the company.

The CEO further suggests that the company would be diversifying its portfolio and it would make investors happy. This is true as diversification helps an investor manage risk and reduce the volatility of an asset's price movements.

6.

CFO argues that to maximize shareholder’s value, the company should pass up projects with negative NPV. Negative NPV signifies that future cash flow's present value is below the current outlay. This means the project is not lucrative and should be denied. A negative NPV would reduce the value of the company and lower the stockholder wealth. The CFO is Correct.

B.

Question 1

	S & P	Apple
Expected Return	12%	16%
Std Deviation	25%	40%

Rf = 4%

1a.

Standard deviation is a measure of the risk of a return from an investment. The smaller the standard deviation of an investment, the less volatile. The greater the standard deviation, the more these profits are distributed and the more risky the investment. Apple has a higher standard deviation and a higher return and under CAPM this is not possible.

1b.

ER= Rf + B(E(Rm)-Rf)

Covariance= 0.1

B=Cov/Return of benchmark

=0.1/.12 = 0.83

Rm= .12/0.1= 1.2

= 0.04+ 0.83(1.2-.04)=10%

1c.

Apple Er=16%

Intel ER= 8%

.16=.08x

Beta X= 2

1d.

Er= 16%

Question 2

2a.

A

Senior bonds= 200*165=33000

Junior= 200*135=27000

Common shares=1000*60= 60000

Total= 120

B

Preferred Shares=500*20= 10000

Bonds outstanding=30000

Common share= 2000P

Total= 40000+2000P

2000P=80000

P=40

1000 shares= $60 per share

2000 shares = x

(2000 * 60)/1000

2c.

B

Common share= 2000*45=90000

Bonds outstanding= 400*150=60000

=150000

I own

Shares= 200*45=9000

Bond=40*150=6000

New Bonds= 120*150=18000+90000=108000

New shares= 400*45=18000+60000=78000

I should buy new shares 1800 worth of shares (40 shares) so that my total ownership is 240 shares with 10800. (108000/.1)

I should also acquire 12 new bonds so that my total bonds owned are 52 worth 7800.

Before restructuring, my total owned securities were 0.1 of total company's securities. (0.1*150000) same as after restructuring (0.1 *186000).

2b.

A

Senior bonds= 200*165=33000

Junior= 200*135=27000

Common shares=1000*60= 60000

Total= 120

B

Preferred Shares=500*20= 10000

Bonds outstanding=30000

Common share= 2000P

Total= 40000+2000P

2000P=80000

P=40

Through short-selling, the company will borrow stock worth $33000 and resell it to retain the cash proceeds. The short-seller hopes that the price will fall over time, providing an opportunity to buy back the stock at a lower price than the original sale price. Any money left over after buying back the stock is profit to the short-seller.

Question 3.

Company A

Boom 100M

Recession 40M

Expected Cashflows = 140*.5=70M

Debt 50M

Equity Value= 70-50 M= 20M

Company B

Boom 20M

Recession 110M

Expected CF= 130*.5= 65M

Equity Value= 65-50= 15M

Debt 50M

3b.

Equity= 20M +15M= 35M

Stock prices of potential target companies tend to rise well before a merger or acquisition has officially been announced Company B's Equity value will be <15M. Company A's Equity before the transactions will remain at 25M. There will no change in the Debt value for the two companies.

Question 4

Initial Cost 100000

Year 1 (60000)

Year 2 Expected CF (360000+ 120000) *.5= 240000

Total CF= 80000

Super company will be able to issue senior debt to finance the initial cost of the new product as the expected total cash-flow is positive.

100000/80000= 1.25

Debt will be equal to $ 100000

Equity will be $25000

As the cashflow has increased in year two, Equity will be higher. Issuing common stock often increases cash flows

4b.

Low demand increases the risk that the company may be unable to repay creditors and on this aspect, the creditors will be willing to renegotiate their debt. Getting lenders to agree to reduce the interest rates on loans, extend the dates when the company's liabilities are due to be paid, or both. These steps improve the company's chances of paying back its obligations and staying in

business. The debt will be reduced to an amount agreeable to the creditors to reflect the changes in demand.

4c.

Initial Cost 100000

Year 1 (60000)

Year 2 Expected CF (360000+ 120000) *.5= 240000

Total CF= 80000

100000/80000=1.25

At year 0, the equity is (125000-100000)= $25000

After renegotiation in case of low demand, the debt issued will be lower than $25000 but the equity should be constant. Low demand and renegotiated debt are the key reasons for the lower Debt component.

4d.

Safe Marketing

0	(100000)
1	(60000)
2	360000
CF	260000

Risky Marketing

0	(100000)
1	(60000)
2	(1.2 M*.2) + (.8*0)=240000

The company will prefer safety marketing since it yields a higher cashflow.

Maximum Senior debt = 100000/260000 * 1000000= 38,615.54