Problems – Ch. 10

9.{M}A. (i) Debt $662 million
   Equity 337
   Debt-to-equity ratio 1.96

(ii) Debt $ 87 million
   Equity 912
   Debt-to-equity ratio 0.10

B. With the conversion price so far above the current market price of Conners common shares, the bonds are very unlikely to be converted and should be treated as debt.

C. With the market price of Conners common at $24, the 6.50% bonds have a high probability of conversion and should be classified as equity, especially if completion of the merger would increase the price of Conners’ shares further. The 6.75% bonds should still be treated as debt, subject to further changes in the price of Conners (or Seagate shares).

D. Debt $317 million
   Equity 682
   Debt-to-equity ratio 0.46
$268/(1.0725) = $249.9 million.
1992 interest = .0725 x $249.9 = $18.1 million.
1993 interest = 2.5/12 x .0725 x $268 = $4 million.

C. The $4 million interest for 1993 increases the
liability to the redemption amount of $272 million.
Thus, there is no gain or loss at redemption.

D. (i) Zero coupon notes have no effect on cash
from operations (CFO) at any time; interest
expense on conventional bonds affects CFO every
year. When income taxes are considered, the
zero-coupon notes generate an annual tax
benefit despite the absence of any interest
payment. Thus CFO is always higher when zero
coupon notes are issued rather than full coupon
notes. Cash for financing (CFI) in 1992 is zero
for both zero-coupon and conventional notes.

(ii) The 1993 CFO effects are the same as 1992.
CFI equals the redemption amount of $272
million for both zero-coupon and conventional
notes.

(iii) Over the life of the notes, CFO is negative for
the conventional notes but positive (due to tax
benefits) for the zero-coupon notes.

For both conventional notes and zero
coupon notes, cash from financing includes the
proceeds from issuance and the amount paid for
redemption. These amounts are approximately the
same for conventional notes (the difference
being any premium or discount and the cost of
issuance). The net amount over the life of the
issue is approximately zero.

For zero coupon notes, however, the
redemption amount includes all accrued interest
from the time of issuance. As a result the net
effect over the life of the note issue is to
increase the cash outflow from financing
activities.
11. {S}A. (i) \[
\text{Debt} = \frac{4,000,000}{28,000,000} = 0.14
\]

When the preferred shares are nonredeemable, they should be considered stockholders' equity.

(ii) \[
\text{Debt} = \frac{21,500,000}{10,500,000} = 2.05
\]

1 $4,000,000 + $16,000,000 [redemption value of preferred stock] + $1,500,000 [preferred dividends in arrears (2 x 100,000 x $7.50)].

2 $28,000,000 - $16,000,000 [redemption value of preferred stock] - $1,500,000 [dividends in arrears]

When the preferred shares are redeemable at the option of shareholders, they should be treated as debt, and stated at their redemption value. The dividend payments in arrears should also be included as they must be paid before common shareholders can receive any distributions.

B. Book value per common share:

(i) \[
\frac{(28,000,000 - 15,000,000)}{200,000} = 65
\]

(ii) \[
\frac{12,000,000}{200,000} = 60
\]

C. Redeemable preferred shares should be considered as debt in computing solvency ratios since they constitute a fixed preference in liquidation and the dividend payments are fixed and often cumulative. Many redeemable preferred issues have the equivalent of "sinking-fund" provisions that also suggest their treatment as debt. Note that the SEC requires that redeemable preferred shares be reported separately from stockholders' equity.
12. A. 1. To ensure that dividend payments can continue to be made.
   2. To enhance the borrowing capacity of the firm.

   B. Given the constraints discussed on text pages 511-12, the issuance of new equity was certainly a possibility. The only question would have been the market valuation of NorAm’s shares relative to management’s view of their intrinsic value.

   C. The answer depends on the shareholder’s view of the market price of NorAm’s shares. Issuance of new shares to maintain the current dividend makes no sense given finance theory which states that the two are equivalent. In an imperfect world, however, NorAm’s shares may be fully valued but the shareholder does not wish to sell and incur capital gains taxes. If NorAm has attractive investment opportunities not reflected in its stock price, then issuing new shares to increase the firm’s borrowing capacity would be desirable.

13. A. The convertible debt should be treated as debt. As the conversion price of $35.89 is three times the current market price of $12, conversion is very unlikely.

   B. Fair value approximated book value as:
      1. The interest rate on the revolving credit, two-thirds of total debt, is most likely variable.
      2. The nonconvertible debt has short maturities.
      3. While the interest rate on the convertible debt is low, the conversion feature has value despite the fact that it is far above current market.