Assignment

FIN 535: Mergers and Acquisitions

Peking University HSBC Business School

Due on: May 29th

1. The NFF Corporation has announced plans to acquire LE Corporation. NFF is trading for $35 per share and LE is trading for $25 per share, implying a premerger value of LE of approximately $4 billion. If the projected synergies are $1 billion, what is the maximum exchange ratio NFF could offer in a stock swap and still generate a positive NPV?

Pt/Pa * (1+S/T) = 25/35 * (1+1/4), First, calculate the number of shares of LE: Number of shares $4,000,000,000 /25 = 1,600,000,000. Including synergies, LE will be worth $4 billion + $1 billion = $5 billion, or $31.25 per share (= $5 billion / 1.6 billion). Hence the maximum exchange ratio that NFF can offer is: Exchange ratio $31.25/$35 = 0.893. Thus, NFF can offer a maximum exchange ratio of 0.893 of its share in exchange of each share of LE.

2. Rearden Metal has earnings per share of $2. It has 10 million shares outstanding and is trading at $20 per share. Rearden Metal is thinking of buying Associated Steel, which has earnings per share of $1.25, 4 million shares outstanding, and a price per share of $15. Rearden Metal will pay for Associated Steel by issuing new shares. There are no expected synergies from the transaction. If Rearden offers an exchange ratio such that, at current pre-announcement share prices for both firms, the offer represents a 20% premium to buy Associated Steel, then what will be the price per share of the Associated Steel immediately after the announcement? What will be the actual premium Rearden will pay?

Solution: Value of Associated Steel = $15 x 1.2 per share x 4 million shares = $72 million. Therefore Rearden will have to issue $72 million/ $20 per share = 3.6 million new shares to fund the deal. This will give Rearden 10 + 3.6 = 13.6 million shares post merger. The total value of Rearden pre-merger is $20 per share x 10 million shares = $200 million and the value of Associated pre-merger is $15 per share x 4 million shares = $60 million, for a combined value of $260 million. The Associated shareholders will own 3.6/13.6 percent of the company or $260 million x = $68.82 million in value. The per share price can be calculated by dividing the $68.82 million in value by 4 million shares of Associated = $17.21 per share. The premium is 14.7%.

3. You work for a levered buyout firm and are evaluating a potential buyout of Boogle Inc. Boogle's stock price is $18, and it has 3 million shares outstanding. You believe that if you buy the company and replace its dismal management team, its value will increase by 50%. You are planning on doing a levered buyout of Boogle and will offer $25 per share for control of the company.

a) Assuming you get 50% control, what will happen to the price of non-tendered shares?

b) Assuming you get 100% control, what will your gain from the transaction be?

Answer:

a) The initial value of Boogle is $18 × 3 million shares = $54 million.

Once you take control, the value after dismissal of management team should be 54 million* (1+50%) = 81 million

You will need to purchase 1.5 million shares to get 50% shares and at a share price of $25.

You will need to borrow = $25 x 1.5 million shares = $37.5 million dollars to acquire 50% of the outstanding shares at a share price of $25.

So, the equity value of the firm after offer = $81 million - $37.5 million in debt = $43.5 million.

Share price after the offer will be = 43.5 million/ 3 million = $14.5.

Of this $43.5 million, $37.5 belongs to the other 50% of shareholders who did not tender their shares, so your net gain from the transaction is $43.5 - $37.5 = $6.0 million

b) The value after take over will be $81 million. If 100% shareholders tender their shares, your net gain from the transaction is $81 million - $75 million = $6.0 million

4. You are trying to estimate the free cash flow to the firm for Wadhwa Inc. and are looking at its most recent financial filings: the annual report for the last fiscal year and its most recent quarterly report for the first three quarters of the current year.

	Last fiscal Year (2013)	3rd Qtr, 2014	3rd Qtr, 2013	First 3 Qtrs, 2014	First 3 Qtrs, 2013
Revenues	$1,200	$400	$325	$1,100	$850
EBITDA	$400	$120	$95	$350	$300
Depr & Amort	$100	$30	$25	$90	$75
EBIT	$300	$90	$70	$260	$225
Interest expenses	$75	$25	$15	$70	$55
Taxable Income	$225	$65	$55	$190	$170
Taxes	$68	$26	$22	$57	$51
Net Income	$158	$39	$33	$133	$119
Cap Ex	$150	$45	$35	$130	$110
Non-cash WC (End of period)	$70	$80	$100	$80	$100

Estimate the free cash flow to the firm over the most recent twelve months.

Trailing 12 month EBIT =	**$335**	**= 300 +260-225**
Tax rate =	**30%**	**= (68+57-51)/(225+190-170)**
EBIT (1-t)	**$234.50**	**= 335 (1-.3)**
+ Trailing 12 month DA	**$115**	**= 100+90-75**
- Trailing 12 month Cap Ex	**$170**	**= 150+130-110**
- Change in non-cash WC	**-$20**	**= End of qtr 3, 2014 - End of qtr 3, 2013**
FCFF	**$199.50**	