1. Acquirer’s P/E is 10x, target’s P/E is 5x, after-tax cost of debt is 8%. Is it dilutive or accretive?

🡪 It’s accretive if all stock: 10% earnings yield acquiring 20% earnings yield

* 1. If 50% stock, 50% debt, still accretive: 50% \* 10% + 50% \* 8% = 9% < 20%
	2. Could take on after-tax cost of debt of 30% and still be accretive
		1. 50% \* 10% + 50% \* 30% = 20% = target’s earnings yield
1. Company A is acquiring Company B. A has P/E = 20x, B has P/E = 15x. A’s share price is $20, B’s share price is $30. A’s shares outstanding is 1000, B’s shares outstanding is 300. What is the combined EPS if all stock deal?
	1. A’s EPS is 20/20 = $1, B’s EPS is 30/15 = $2. A’s net income = $1 \* 1000 = $1000, B’s net income = $2 \* 300 = $600. Combined net income is $1600.

Since all stock deal, the exchange ratio is $30/$20 = 1.5, so for 300 B’s shares, A has to issue 450 A’s shares. Total shares outstanding is now 1450.

The new diluted EPS of the combined firm is $1600 / 1450 = approx. $1.10/share

* 1. What is the P/E ratio of the combined firm?

The combined market cap of the firm is $20 \* 1000 + $30 \* 300 = $29,000. The combined net income is $1,600. Thus the P/E = 29000/1600 = 18.125x

1. Company B has P/E of 20x and Company A’s cost of debt is 5%. Company A is acquiring company B with all debt-financed cash. Is it accretive or dilutive?
	1. Since P/E is 20x, then earnings yield is 5%. The after-tax cost of debt is 4% assuming tax rate of 20%. Since earnings yield of 5% is higher than 4x, it is accretive
2. Company A is worth 100 million, Company B is worth 100 million. Company A has 1 million shares outstanding. A is trading at P/E of 10x, B is trading at P/E of 5x. How accretive is this acquisition?
	1. A market cap = 100 million, net income must = 100million/10x = 10 million. B market cap = 100 million, net income must = 100million/5x = 20 million. Combined net income = 30 million

A’s share price is $100/share (=100 market cap/1 million shares O/S), and thus must issue 1 million shares to acquire B. Total shares outstanding is now 2 million

The combined EPS = 30m / 2m = $15/share, which is equal to 50% accretion to A’s original EPS of $10/share (=10 million net income/1 million shares O/S)

1. Company A has 300 Assets, 200 Liabilities and 100 Equity, is acquiring company B that has 200 Assets, 100 Liabilities and 100 Equity. It is paying 200 all cash. What does the combined B/S look like?
	1. Since it is paying 200 cash for 100 worth of equity, it is generating 100 Goodwill, so the combined Assets are 300 – 200 + 200 + 100 = 400, Liabilities are 200 + 100 = 300, and Equity is still 100

The same company is now paying 200 cash for only 80% of company B’s equity, what is the B/S effect?

* 1. Since it is paying 200 for only 80%, the target is valued at 250. There is 150 worth of Goodwill (=250-100) and 50 worth of minority interest. The combined Assets are 300 – 200 + 200 + 150 = 450, Liabilities are 200 + 100 = 300, and Equity is 100 + 50 = 150