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Financial Modeling Fundamentals, Module 10: M&A Deals and Merger Models – Walkthrough of a Full Merger Model

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Key Rule #5: How Does a Full Merger Model Work?

In the previous sections, we covered an example of a **simplified merger model** where we estimated the purchase price and the Cash / Debt / Stock mix and then used the Weighted Cost of Acquisition and the Seller's Yield to predict whether the deal would be accretive or dilutive.

You still use the same process for **real deals**, but there are a few additional steps and complexities. We divide the process for real companies into **7 steps:**

1) **Project the Financial Statements of the Buyer and Seller** – In a real merger model, you go beyond simple Income Statement projections because you must estimate how much Debt the Combined Company can repay each year.

2) **Estimate the Purchase Price and Form of Payment** – You assume a share-price premium for a public Seller and confirm the price with the valuation methodologies; the Cash / Debt / Stock mix is based on the minimum Cash balance and the maximum amount of Debt the Buyer can raise.

3) **Create a Sources & Uses Schedule and Purchase Price Allocation Schedule** – These schedules let you get *more specific* about how much the Buyer and Seller are contributing and the other acquisition effects, such as the Amortization of Other Intangible Assets.

4) **Combine the Balance Sheets of the Buyer and Seller** – You always want to create a *Combined* Balance Sheet because it helps you assess the Combined Company's capital structure and whether or not it has reasonable levels of Debt, Equity, and Cash.

5) **Combine the Income Statements of the Buyer and Seller** – This part is very similar to the simplified model: You add together the Pre-Tax Incomes of the Buyer and Seller and make adjustments for new items, such as synergies and D&A on Asset write-ups.

6) **Calculate Cash Flow, Debt Repayment, and Key Metrics and Ratios** – To make the model more accurate, you project the Combined Company's cash flow and use that to determine how much Debt it can repay each year (or how much Cash it generates). Calculating metrics like Debt / EBITDA and EBITDA / Interest for the Combined Company also helps you assess the viability of the deal.

7) **Calculate EPS Accretion / Dilution and Create Sensitivity Tables** – Once you've linked everything and tracked the changing Debt and Cash balances, you can calculate the

Combined EPS and the accretion / dilution figures. You almost always create sensitivity tables that assess the deal under different assumptions, such as higher and lower purchase prices, as well.

And now, with screenshots and more detail:

1) Project the Financial Statements of the Buyer and Seller

This step varies by industry and company, but at the minimum, **you need the same level of detail as in a DCF analysis**.

You *don't* need full 3-statement projections; you just need estimates for each company's projected cash flow.

That means you need to forecast the following items:

- **Revenue** – Ideally based on units sold and average selling price or market size and share.
- **COGS and Operating Expenses** – Based on percentages of revenue, employee counts, or fixed vs. variable costs.
- **Net Interest Expense** – You must project each company's Interest Income and Interest Expense because they might change in the deal.
- **Taxes and Net Income** – You don't need these for the Seller, but you do need a sense of the Buyer's tax rate since you will apply it to the Combined Company.
- **Major Cash Flow Items** – You must project Depreciation & Amortization, the Change in Working Capital, and other items like recurring Dividends and Deferred Taxes that impact a company's cash flow.

Here are the Income Statement drivers we used for Men's Wearhouse:

Acquirer - Key Drivers:	Units:	Historical FY11	FY12	FY13	Projected FY14	FY15	FY16	FY17	FY18
Income Statement Drivers:									
Retail Stores - Beginning of Period:	*# Stores*	**1,192**	**1,166**	**1,143**	**1,124**	**1,146**	**1,171**	**1,181**	**1,196**
(+) Opened:	*# Stores*	25	37	25	37	40	35	35	35
(-) Closed:	*# Stores*	(51)	(60)	(44)	(15)	(15)	(25)	(20)	(20)
Open at End of Period:	*# Stores*	**1,166**	**1,143**	**1,124**	**1,146**	**1,171**	**1,181**	**1,196**	**1,211**
Sales per Store:	*$ M / Store*	$ 2.02	$ 2.16	$ 2.18	$ 2.25	$ 2.27	$ 2.28	$ 2.28	$ 2.30
COGS % Revenue:	*%*	56.0%	55.5%	56.0%	55.8%	55.8%	55.8%	55.8%	55.8%
Minimum Lease Payments:	*$ M*				177.1	162.4	138.3	107.8	82.1
Operating Lease Expense:	*$ M*	165.1	169.4	175.9	177.1	179.6	188.2	190.2	198.6
Lease Expense per Store:	*$ M / Store*	0.140	0.147	0.155	0.155	0.155	0.160	0.160	0.165
SG&A Expense:	*$ M*	696.4	739.7	771.8	737.8	753.0	764.4	772.5	782.3
SG&A Expense per Store:	*$ M / Store*	0.59	0.64	0.68	0.650	0.650	0.650	0.650	0.650

Men's Wearhouse is a retail company, so we projected revenue based on the # of stores and sales per store; we could have also used the total # of square feet and sales per square foot.

Retailers make money by ordering inventory, marking up the items, and selling them at higher prices, so Cost of Goods Sold (COGS) should be linked to the sales of these individual items.

We made it a simple percentage of revenue, but we could have also used the gross margins on different items.

We projected Selling, General & Administrative (SG&A) expenses and the rental expense separately, but they're both linked to **individual stores**.

The Cash Flow Statement drivers are all standard.

We projected D&A as a percentage of revenue, the Change in Working Capital as a percentage of the change in revenue, and other items either as percentages of revenue or on a per-store basis:

Acquirer - Key Drivers:	Units:	Historical FY11	FY12	FY13	Projected FY14	FY15	FY16	FY17	FY18
Cash Flow Statement Drivers:									
Depreciation & Amortization:	$ M	76.0	85.0	88.7	86.8	89.3	91.1	92.1	94.0
D&A % Revenue:	%	3.2%	3.4%	3.6%	3.4%	3.4%	3.4%	3.4%	3.4%
Tuxedo Rental Amortization:	$ M	28.9	28.3	32.3	31.1	32.0	32.7	33.0	33.7
Tuxedo Rental Amort. % Revenue:	%	1.2%	1.1%	1.3%	1.2%	1.2%	1.2%	1.2%	1.2%
Loss on Disposition of Assets:	$ M	2.8	2.0	0.2	-	-	-	-	-
Goodwill Impairment Charge:	$ M	-	-	9.5	-	-	-	-	-
Asset Impairment Charge:	$ M	2.0	0.5	2.2	-	-	-	-	-
Deferred Taxes & Rent:	$ M	30.5	6.2	5.2	5.1	5.3	5.4	5.4	5.5
Deferred Taxes & Rent % Revenue:	%	1.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Change in Working Capital:	$ M	(109.7)	(41.8)	(48.3)	(32.2)	(30.4)	(20.6)	(11.4)	(23.3)
% Change in Revenue:	%	(39.2%)	(39.6%)	321.1%	(40.0%)	(40.0%)	(40.0%)	(40.0%)	(40.0%)
Capital Expenditures:	$ M	91.8	121.4	108.2	85.1	92.7	100.0	107.0	114.3
CapEx per Store:	$ M / Store	$ 0.08	$ 0.11	$ 0.10	$ 0.08	$ 0.08	$ 0.09	$ 0.09	$ 0.10
Dividends:	$ M	25.1	37.1	35.5	42.7	45.9	46.4	46.9	48.5
Dividends % Net Income:	%	20.8%	28.2%	42.4%	30.5%	30.5%	30.5%	30.5%	30.5%
Debt Principal Repayments:	$ M	-	-	2.5	10.9	16.4	16.4	26.9	26.9

We haven't created Cash Flow Statement projections for the Buyer; we'll simply link to these items on the Combined Cash Flow Statement later on.

Here's the Income Statement for the Buyer, along with a few notes for items such as Interest Income, Interest Expense, and the Share Count:

Acquirer - Income Statement:	Units:	Historical FY11	FY12	FY13	Projected FY14	FY15	FY16	FY17	FY18
Revenue:	$ M	$ 2,382.7	$ 2,488.3	$ 2,473.2	$ 2,553.8	$ 2,629.8	$ 2,681.3	$ 2,709.8	$ 2,768.1
Cost of Goods Sold:	$ M	1,333.8	1,380.1	1,384.2	1,425.1	1,467.5	1,496.2	1,512.2	1,544.7
Gross Profit:	$ M	1,048.9	1,108.1	1,089.0	1,128.7	1,162.3	1,185.0	1,197.6	1,223.4
(+) Selling, General & Administrative:	$ M	696.4	739.7	771.8	737.8	753.0	764.4	772.5	782.3
(+) Rental Expense:	$ M	165.1	169.4	175.9	177.1	179.6	188.2	190.2	198.6
(+) Goodwill Impairment Charge:	$ M	-	-	9.5	-	-	-	-	-
(+) Asset Impairment Charges:	$ M	2.0	0.5	2.2	-	-	-	-	-
Total Operating Expenses:	$ M	863.5	909.6	959.4	914.8	932.6	952.6	962.7	980.9
Operating Income:	$ M	185.4	198.6	129.6	213.8	229.7	232.5	234.9	242.5
(+) Interest Income:	$ M	0.4	0.6	0.4	0.5	0.5	0.5	0.5	0.5
(-) Interest Expense:	$ M	(1.4)	(1.5)	(3.2)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
Net Interest Income / (Expense):	$ M	(1.0)	(0.9)	(2.8)	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)
Pre-Tax Income:	$ M	184.4	197.7	126.8	212.3	228.2	231.0	233.4	241.0
(-) Income Tax Provision:	$ M	(63.9)	(65.6)	(42.6)	(72.2)	(77.6)	(78.5)	(79.4)	(81.9)
Net Income:	$ M	120.5	132.1	84.2	140.1	150.6	152.4	154.1	159.1
Net (Income) / Loss Attrib. to NCI:	$ M	0.1	(0.3)	(0.4)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
Net Income to Common:	$ M	$ 120.6	$ 131.7	$ 83.8	$ 139.9	$ 150.4	$ 152.2	$ 153.9	$ 158.9
Earnings Per Share (EPS):	$ / Share	$ 2.33	$ 2.58	$ 1.70	$ 2.88	$ 3.10	$ 3.14	$ 3.17	$ 3.28
Average Diluted Shares:	M Shares	51.692	51.026	49.162	48.504	48.504	48.504	48.504	48.504

We didn't put much thought into either of these because they're so low; Interest Expense comes from the company's schedule for it, and Interest Income is a simple average.

Taxes are based on the average effective tax rate over the past 3 years; the rate should almost always be between 30% and 40% for U.S. companies.

In merger models, you do **NOT** want a changing share count for the Buyer. Zero out SBC, stock issuances, and stock repurchases!

Just like you **ignore** Stock-Based Compensation, stock issuances, and stock repurchases in a DCF, you should also **ignore** them in a merger model: These items will distort the accretion/dilution calculations, and it's tough to estimate their impact on the share count.

So we recommend setting them to 0 in the projections for the Buyer, Seller and the Combined Company – effectively, you assume that SBC is a normal cash expense, just as in the DCF.

If the Interest Income and Interest Expense were bigger, we might have put more effort into projecting them.

But since they're so small, we used a simple approach and followed the company's estimates for Interest Expense and used a simple historical average for Interest Income.

Once you've made these projections for the Buyer, you do the same thing for the Seller.

The Seller here – JoS. A. Bank – is *almost the same* as the Buyer since they're both retailers, so we're not going to paste in everything all over again.

You go through the same process and use historical data, the market's views of the company, and management's expectations to project the key line items.

2) Estimate the Purchase Price and Form of Payment

This step doesn't differ too much for real companies.

If the Seller is **public**, you'll link the purchase price to an Offer Price per Share, which is higher than the company's current share price.

You base the premium-to-current-share-price on the premiums that similar companies in the market have sold for recently; if the range is 15% – 30%, you might start at 20% or 25%.

You'll then check this Offer Price per Share and make sure it's in-line with the company's Implied Share Price as determined by Public Comps, Precedent Transactions, and the DCF.

For private companies, the purchase price is based on a simple EV / EBITDA, EV / EBIT, or P / E multiple, which you pick based on peer companies and the valuation methodologies.

Transaction Assumptions:

Target - "Undisturbed" Share Price:	$ 41.66
Premium Paid to Target's Share Price:	56.0%
Offer Price per Share:	$ 65.00
Purchase Equity Value:	$ 1,827.3
Purchase Enterprise Value:	1,463.8
LTM Purchase EV / EBITDA Multiple:	11.0 x
LTM Purchase EV / Revenue Multiple:	1.4 x

Offer Price per Share:	$ 65.00
Tax Rate:	38.1%
Basic Shares Outstanding (Millions):	27.998
Diluted Shares Outstanding (Millions):	28.113
Purchase Equity Value:	**$ 1,827.3**
(-) Cash & Cash-Equivalents:	(445.5)
(-) Equity Investments:	-
(-) Other Non-Core Assets, Net:	-
(-) Net Operating Losses:	-
(+) Total Debt:	-
(+) Preferred Stock:	-
(+) Noncontrolling Interests:	-
(+) Unfunded Pension Obligations:	82.0
(+) Capital Leases:	-
(+) Restructuring & Other Liabilities:	-
Purchase Enterprise Value:	**$ 1,463.8**

You'd check everything here against the valuation methodologies to make sure that a $65.00 Offer Price per Share and these LTM multiples are reasonable.

The mix of Cash, Debt, and Stock might be based on what happened in **real life** (if the deal is a real one), or you might assume that the Buyer uses all its available Cash, then raises Debt up to the Debt / EBITDA ratio of peer companies, and issues Stock for anything past that.

Here, we used the **100% Debt** mix that the Buyer used in real life:

Purchase Equity Value:	$ 1,827.3
% Cash:	0.0%
% Debt:	100.0%
% Stock:	0.0%

	Amount:	Pre-Tax Cost:	After-Tax Cost:
Cash Used:	$ -	0.4%	0.2%
Debt Issued:	1,827.3	5.4%	3.6%
New Shares Issued (Millions):	0.000		5.3%
Weighted Average Acquisition Cost:			3.6%
Target's "Yield":			3.5%

These costs are based on Interest Income / Average Cash Balance for the Cash; For the Debt, it's either Interest Expense / Average Debt Balance or the interest rate the company will have to pay on this NEW Debt (for deals in real life).

We calculated the Weighted Average Cost of Acquisition and the Seller's Yield at this point, but we choose **not** to predict whether the deal will be accretive or dilutive.

So many new items go into the accretion/dilution analysis in a real deal that a simple comparison of those percentages no longer works so well.

3) Create a Sources & Uses Schedule and Purchase Price Allocation Schedule

We mentioned earlier how **the real amount** that a Buyer pays is not exactly equal to the Purchase Equity Value *or* the Purchase Enterprise Value of the Seller.

The actual amount paid depends on the treatment of Debt and Cash as well as any fees associated with the deal.

To track this *real amount*, you create a **"Sources & Uses"** schedule.

A **Source of Funds** is anything that the Buyer uses to pay for the company: Cash, Debt, and Stock are the main Sources.

A **Use of Funds** is anything that *increases* the real amount that a Buyer must pay for the Seller.

The biggest Use of Funds is the Purchase Equity Value of the Seller: What it costs to buy all its shares.

Debt repayment and transaction fees are also Uses of Funds because the Buyer must pay for these items as well.

If the Buyer **assumes** the Seller's Debt or "refinances it" by *replacing* it with new Debt, the existing Debt shows up under *both* Sources and Uses.

Merger Model - The Men's Wearhouse, Inc. and JoS. A. Bank Clothiers, Inc.
($ in Millions, Except Per Share Amounts in Dollars as Stated)

Transaction Assumptions:

Target - "Undisturbed" Share Price:	$ 41.66	Advisory Fee %:	1.0%
Premium Paid to Target's Share Price:	56.0%	Debt Issuance Fee %:	3.0%
Offer Price per Share:	$ 65.00	Amortization Period (Years):	5
Price at Which Acquirer Issues Shares:	$ 54.57	Breakup Fee Paid to Previous Target:	$ 48.0
		Legal and Other Fees:	$ 83.7
Purchase Equity Value:	$ 1,827.3		
Purchase Enterprise Value:	1,463.8	Combined Minimum Cash Balance:	$ 100.0
LTM Purchase EV / EBITDA Multiple:	11.0 x	Pre-Deal Combined Cash Balance:	504.8
LTM Purchase EV / Revenue Multiple:	1.4 x		

		Amount:	Pre-Tax Cost:	After-Tax Cost:
% Cash:	0.0%	Cash Used:	$ -	0.4%	0.2%
% Debt:	100.0%	Debt Issued:	1,827.3	5.4%	3.6%
% Stock:	0.0%	New Shares Issued (Millions):	0.000		3.3%
		Weighted Average Acquisition Cost:			3.6%
Revenue Synergies % Combined Revenue:	0.0%	Target's "Yield":			3.5%
Gross Margin on Revenue Synergies:	48.1%				
Sensitivity Toggle for Expense Synergies:	0.0%				

Sources & Uses of Funds:

Sources:		Uses:	
Cash Used:	$ -	Equity Purchase Price of Target:	$ 1,827.3
Debt Issued:	1,827.3	Refinance Acquirer's Debt:	97.5
Stock Issued:	-	Transaction Fees:	150.0
Excess Cash Used:	=MIN(+M34-SUM(G30:G32),+M15-Min_Cash)		54.8
Total Sources:	**$ 2,129.6**	**Total Uses:**	**$ 2,129.6**

Sources & Uses of Funds:

Sources:		Uses:	
Cash Used:	$ -	Equity Purchase Price of Target:	$ 1,827.3
Debt Issued:	1,827.3	Refinance Acquirer's Debt:	97.5
Stock Issued:	-	Transaction Fees:	150.0
Excess Cash Used:	302.3	Financing Fees:	54.8
Total Sources:	**$ 2,129.6**	**Total Uses:**	**$ 2,129.6**

The Excess Cash Used acts as the "plug" here. But since the Buyer has very little Cash ($59 million), it's mostly the Seller's Cash.

We need this extra ~$302 million because of the transaction and financing fees and the refinanced Debt.

It's unusual for the *Buyer* to repay its Debt in a deal, but it happens in this case, likely because interest rates are so low.

The Transaction Fees are typically a small % of the Equity Purchase Price (1% here); legal and other fees also add to them.

So how much does the Buyer "really" pay for the Seller in this deal?

The Buyer had relatively little Cash – only around $59 million – so most of the "Excess Cash Used" came from the Seller, which had ~$445 million in Cash as of the time of this deal.

The Seller also had **no Debt** as of the time of this deal.

So the Buyer paid $1,827.3 million – $302.3 million, or **$1,525.0 million**, for the Seller.

Notice how this figure is *between* the Seller's Purchase Enterprise Value and Purchase Equity Value.

We get that result because the Seller used some, but not all, of its Cash to finance the deal.

So the Buyer doesn't "get" all the Seller's Cash: It just gets *some* of that Cash, which reduces its upfront purchase price.

In more complex transactions, this process gets even more confusing, which is why you need to build a Sources & Uses schedule for any real deal.

The Purchase Price Allocation (PPA) Schedule

Once you've created the Sources & Uses schedule, you move onto the **Purchase Price Allocation (PPA) schedule**.

You need to set up this schedule because in almost all M&A deals, the Buyer pays a *premium* over the Seller's Book Value (i.e., its Common Shareholders' Equity).

For example, the Buyer might pay $1,000 for the Purchase Equity Value, but the Seller's Common Shareholders' Equity is worth only $700.

This premium is NOT the premium to current share price: That one is based on the *market value* of the company's shares, while this one is based on the book value.

You should know from the Accounting guides that this premium will result in **the Balance Sheet not balancing**, which is a big problem.

To fix this problem, you create 2 new Assets:

1) Other Intangible Assets, to represent the value of *identifiable* items that have some value, such as trademarks, patents, and customer relationships; and

2) Goodwill, to represent everything else.

We've covered the rationale for these items in the Accounting lessons, so we're not going to re-hash them here.

But that's not all!

The Buyer must also re-evaluate all the Seller's Assets and Liabilities when the deal closes and write them up or down to their "fair market values."

For example, perhaps the Seller purchased a building for $1,000 five years ago. This building will be listed on the Seller's Balance Sheet at $1,000 minus Accumulated Depreciation.

If the Accumulated Depreciation is $100, the building will be shown at a net value of **$900**.

When the Buyer reviews this building and does some research on the local market, it concludes that the building is worth **$1,100**.

Therefore, the Buyer will record a "write-up" of $200 to reflect the fair market value of the building.

There might also be write-ups for Inventory and other items, but PP&E write-ups are the most common ones because the value of real estate often increases over time.

In addition to these Asset write-ups, you also **write down a Seller's existing Deferred Tax Assets (DTAs) and Deferred Tax Liabilities (DTLs)** in most M&A deals (**Advanced Note:** Basically, any deal structured as a Stock Purchase – see the Advanced section).

These items were created due to *temporary* differences in cash taxes and book taxes that will reverse eventually.

But in an M&A deal, accounting rules state that items set to reverse eventually **must reverse immediately upon acquisition close**.

So all the differences are removed and reconciled, the existing DTAs and DTLs are wiped out, and a new DTL may be created.

A new Deferred Tax Liability gets created if there's a write-up of PP&E or if Other Intangible Assets are created.

Depreciation & Amortization on these items is **not** deductible for cash-tax purposes, but the company still records the D&A on its book financial statements.

So the cash taxes the company pays to the government will be **higher** than the taxes it records on its Income Statement.

A Deferred Tax Liability means that the company expects to pay **higher cash taxes than book taxes in the future**, which corresponds to this scenario.

Over time, the DTL will decrease as the company pays those higher cash taxes, and eventually it will reach $0 once the write-ups have been fully depreciated or amortized.

Here's a diagram to illustrate the concept:

These items almost always get created or written up in M&A deals.

This DTL is based on (Intangible + PP&E Write-Ups) * Tax Rate.

Intangibles Created:	$ 85.0	Amortization Period:	5
PP&E Write-Up:	24.0	Depreciation Period:	8
Tax Rate:	40.0%	Initial Deferred Tax Liability:	44

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Book Operating Income:		$ 100	$ 110	$ 120	$ 130	$ 140	$ 150	$ 160	$ 170	$ 180	$ 190
(-) Amortization of Intangibles:		(17)	(17)	(17)	(17)	(17)	-	-	-	-	-
(-) Depreciation of PP&E Write-Up:		(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	-	-
Book Taxable Income:		**80**	**90**	**100**	**110**	**120**	**147**	**157**	**167**	**180**	**190**
Book Taxes:		32	36	40	44	48	59	63	67	72	76
Tax Operating Income:		100	110	120	130	140	150	160	170	180	190
(-) Amortization of Intangibles:		-	-	-	-	-	-	-	-	-	-
(-) Depreciation of PP&E Write-Up:		-	-	-	-	-	-	-	-	-	-
Cash Taxable Income:		**100**	**110**	**120**	**130**	**140**	**150**	**160**	**170**	**180**	**190**
Cash Taxes:		40	44	48	52	56	60	64	68	72	76
Deferred Tax Liability:	$ 44	$ 36	$ 28	$ 20	$ 12	$ 4	$ 2	$ 1	$ 0	$ 0	$ 0

After an M&A deal takes place, the company's Cash Taxes will be higher than its Book Taxes because D&A from write-ups are not deductible for Cash-Tax purposes. As a result, the DTL will decrease each year until it reaches $0 when the write-ups are fully amortized or depreciated.

Advanced Note: The treatment for these items differs in Asset Purchases and 338(h)(10) deals – please see the section on More Advanced Merger Model Features.

In these other deal structures, you write up Assets for *both* book and tax purposes and deduct D&A for *both* book and cash-tax purposes, so no new DTL is created.

Also, you may not write down the Seller's entire DTA balance, exactly – the exact amount to write down depends on the deal type and how much of the DTA the Buyer might be able to use after the deal closes.

There are many other differences as well, so please see that section/guide for more.

Here's the Purchase Price Allocation schedule for the Men's Wearhouse / Jos. A. Bank deal we're analyzing:

Standard items; you always write off the Seller's Common Shareholders' Equity and create Goodwill and Other Intangible Assets to "plug the gap."

Purchase Price Allocation:

Goodwill Calculation:	
Equity Purchase Price:	$ 1,827.3
(-) Seller Book Value:	(732.1)
(+) Write-Off of Existing Goodwill:	-
Total Allocable Purchase Premium:	**1,095.2**
(-) Write-Up of PP&E:	(14.9)
(-) Write-Up of Intangibles:	(554.8)
(-) Write-Down of Deferred Tax Liabilities:	(13.0)
(-) Write-Down of Deferred Rent:	(41.3)
(+) New Deferred Tax Liability:	193.7
Total Goodwill Created:	**$ 665.0**

Fixed Asset Write-Up:	
PP&E Write-Up %:	10.0%
PP&E Write-Up Amount:	$ 14.9
Depreciation Period (Years):	8
Intangible Asset Write-Up:	
Purchase Price to Allocate:	$ 1,095.2
% Allocated to Indefinite-Lived Intangibles:	45.7%
Indefinite-Lived Intangibles:	500.0
% Allocated to Definite-Lived Intangibles:	5.0%
[illegible]gibles Write-Up Amount:	54.8
Amortization [illegible] (Years):	5
New Deferred Tax Liability:	$ 193.7

You write off existing DTLs or DTAs in "Stock Purchase" deals because temporary tax differences that will reverse *eventually* must be reversed and reconciled **immediately** in an M&A deal.

The write-down of Deferred Rent is not a standard item, but the company did it because it's another "timing difference" item.

The new DTL is based on the **TOTAL** amount of write-ups times the Buyer's Tax Rate. You include even the Indefinite-Lived Intangibles because they will *eventually* be written down, and that write-down won't be deductible for cash-tax purposes.

Asset write-ups **reduce** Goodwill Created because they increase the Assets side of the Balance Sheet; Liability write-downs also **reduce** Goodwill Created because they make the L&E side of the Balance Sheet smaller.

Liability write-ups and new Liabilities, such as the new DTL, **increase** Goodwill Created because they do the opposite. Asset write-downs, similarly, **increase** Goodwill Created.

4) Combine the Balance Sheets of the Buyer and Seller

The Balance Sheet combination is simple *if* you've set up the Sources & Uses and Purchase Price Allocation schedules correctly.

You add together the Balance Sheets of the Buyer and Seller from the deal close date, and you reflect the Cash, Debt, and Stock used in the deal, show the write-ups and new Assets and Liabilities, and write down the Seller's Common Shareholders' Equity.

Here are the adjustments on the Assets side:

Balance Sheet Combination:	Units	Buyer FY13	Seller FY13	Pro-Forma Adjustments: Debit	Credit	FY13
ASSETS:						
Current Assets:						
Cash & Cash Equivalents:	$ M	$ 59.3	$ 445.5	$ -	$ (302.3)	$ 202.4
Accounts Receivable:	$ M	63.2	13.6	-	-	76.7
Inventory:	$ M	599.5	304.3	-	-	903.8
Other Current Assets:	$ M	93.2	23.1	-	-	116.3
Total Current Assets:	$ M	**815.1**	**786.5**			**1,299.3**
Long-Term Assets:						
Plants, Property & Equipment:	$ M	408.2	149.0	14.9	-	572.0
Tuxedo Rental Product, Net:	$ M	142.8	-	-	-	142.8
Goodwill:	$ M	126.0	-	665.0	-	791.0
Other Intangible Assets:	$ M	58.0	-	554.8	-	612.8
Other Assets:	$ M	5.1	0.3	-	-	5.4
Total Long-Term Assets:	$ M	**740.1**	**149.3**			**2,124.0**
TOTAL ASSETS:	$ M	**$ 1,555.2**	**$ 935.7**			**$ 3,423.3**

In Current Assets, you reflect the Cash used in the deal; you might also adjust the value of Inventory and adjust for Inter-Company Receivables.

In Long-Term Assets, you write up PP&E and reflect the new Goodwill and Other Intangible Assets created in the deal. Note that as of 2016, **you no longer capitalize the financing fees**, under both U.S. GAAP and IFRS.

And then on the Liabilities & Equity side:

Balance Sheet Combination:	Units	Buyer FY13	Seller FY13	Pro-Forma Adjustments: Debit	Credit	FY13
LIABILITIES & EQUITY:						
Current Liabilities, Excluding Debt:						
Accounts Payable:	$ M	$ 148.8	$ 32.9	-	-	181.7
Accrued Expenses & Other Liab.:	$ M	175.8	115.0	-	-	290.8
Income Taxes Payable:	$ M	0.7	-	-	-	0.7
Deferred Tax Liability - Current:	$ M	-	1.8	(1.8)	-	-
Total Current Liabilities, Excl. Debt:	$ M	**325.3**	**149.8**			**473.3**
Long-Term Liabilities, Including All Debt:						
Existing Debt:	$ M	97.5	-	(97.5)	-	-
New Transaction Debt:	$ M	-	-	(54.8)	1,827.3	1,772.5
Deferred Tax Liability - Noncurrent:	$ M	109.3	11.2	(11.2)	193.7	303.0
Deferred Rent:	$ M	-	41.3	(41.3)	-	-
Other Noncurrent Liabilities:	$ M	-	1.4	-	-	1.4
Total Liabilities, Including All Debt:	$ M	**206.8**	**53.9**			**2,076.9**
Total Liabilities:	$ M	**$ 532.1**	**$ 203.7**			**$ 2,550.1**
Shareholders' Equity:	$ M	$ 1,009.1	$ 732.1	(882.1)	-	859.1
Noncontrolling Interests:	$ M	14.0	-	-	-	14.0
Total Equity:	$ M	**$ 1,023.1**	**$ 732.1**			**$ 873.1**
TOTAL LIABILITIES & EQUITY:	$ M	**$ 1,555.2**	**$ 935.7**			**$ 3,423.3**
Balance Sheet Check:		*OK!*	*OK!*			*OK!*

There are few adjustments in this section; you might write down DTLs, adjust for Inter-Company Payables, and perhaps reflect new Debt.

You reflect any Debt Repaid, changes in DTLs, and New Debt here. Note that as of 2016, you also **deduct financing fees** from the Debt issued to fund the deal.

You write off the Seller's Common Shareholders' Equity, reflect the value of new Stock issued, and also deduct one-time transaction fees here.

If the post-transaction Balance Sheet does **not** balance, then you've done something wrong and must review your work to find the mistake.

The best way to check your work is to go back to the Sources & Uses and Purchase Price Allocation schedules and make sure **you've reflected all the items in those in your Balance Sheet adjustments**.

If you've missed or double-counted something, the Combined Balance Sheet will be wrong.

5) Combine the Income Statements of the Buyer and Seller

This step is also straightforward **if you've set up everything properly** in the previous steps.

If the Buyer and Seller expect to realize **synergies** – opportunities to boost Combined Revenue or reduce Combined Expenses – then you'll create a schedule for those synergies first.

The CFOs of both companies will discuss synergies and provide their estimates to bankers.

They have to figure out if there are opportunities to consolidate locations or departments, or ways to negotiate better agreements with suppliers.

Even if there are substantial synergies, it will take **time** to realize them.

So you normally assume that it takes at least a few years to realize all the synergies and that there are **integration costs** associated with the deal and these synergies.

In this case, we used management's estimates from the deal announcement:

Management Estimates - Long-Term Synergies:	
(+) Cost of Goods Sold:	$ 30.0
(+) General & Administrative:	46.0
(+) Stores:	14.0
(+) E-Commerce:	8.0
(+) Advertising Media:	6.0
Total Long-Term Synergies:	**$ 104.0**

Implied # of Stores Closed:	
Average SG&A Expense per Store:	0.60
Implied # of Stores Closed:	23.3
% Total Stores as of Deal Close:	1.3%
COGS Synergies % Combined COGS:	1.4%
OpEx Synergies % Combined OpEx:	5.8%

We calculated these percentages to check how reasonable the **synergy estimates** are - much higher percentages would be suspect.

Estimated Annual Synergies:	Units	Projected FY14	FY15	FY16	FY17	FY18
% Synergies Realized:	%	16.0%	50.0%	85.0%	100.0%	100.0%
(+) COGS Synergies:	$ M	$ 4.8	$ 15.0	$ 25.5	$ 30.0	$ 30.0
(+) OpEx Synergies:	$ M	11.8	37.0	62.9	74.0	74.0
Total Annual Synergies:	$ M	**16.6**	**52.0**	**88.4**	**104.0**	**104.0**
Integration Costs:	$ M	33.3	66.7	-	-	-

Even if these synergies are real, it will take **time and money** to realize them - there's no such thing as a free lunch!

The **Integration Costs** may show up on the Income Statement, but they could also be Cash Flow Statement line items depending on what they consist of.

If they're more related to **capital assets**, such as stores, factories, equipment, or physical locations, they'll more than likely be CFS line items.

Once you have these items, you can start combining the Income Statements:

Combined Income Statement:	Units:	Projected FY14	FY15	FY16	FY17	FY18
(+) Acquirer - Revenue:	$ M	$ 2,553.8	$ 2,629.8	$ 2,681.3	$ 2,709.8	$ 2,768.1
(+) Target - Revenue:	$ M	1,061.8	1,110.5	1,166.5	1,200.7	1,252.9
(+) Revenue Synergies:	$ M	-	-	-	-	-
Total Revenue:	$ M	**3,615.5**	**3,740.2**	**3,847.8**	**3,910.5**	**4,021.0**
(+) Acquirer - Cost of Goods Sold:	$ M	1,425.1	1,467.5	1,496.2	1,512.2	1,544.7
(+) Target - Cost of Goods Sold:	$ M	451.3	471.9	501.6	516.3	545.0
(+) COGS on Revenue Synergies:	$ M	-	-	-	-	-
(-) COGS Synergies:	$ M	(4.8)	(15.0)	(25.5)	(30.0)	(30.0)
Total COGS:	$ M	**1,871.5**	**1,924.5**	**1,972.3**	**1,998.5**	**2,059.7**
Gross Profit:	$ M	**1,744.0**	**1,815.8**	**1,875.4**	**1,912.0**	**1,961.3**

If there are no revenue synergies, you literally add the Buyer and Seller's Revenue.

In the next section, you add the Buyer and Seller's COGS and also reflect COGS associated with the revenue synergies and any cost savings associated with COGS.

The next section is also straightforward because you add together the Operating Expenses from the Buyer and Seller and make adjustments for synergies and new D&A created in the deal:

Combined Income Statement:	Units:	Projected FY14	FY15	FY16	FY17	FY18
Gross Profit:	$ M	**1,744.0**	**1,815.8**	**1,875.4**	**1,912.0**	**1,961.3**
(+) Acquirer - SG&A Expense:	$ M	737.8	753.0	764.4	772.5	782.3
(+) Target - SG&A Expense:	$ M	428.2	447.9	469.3	483.1	500.4
(+) Acquirer - Rental Expense:	$ M	177.1	179.6	188.2	190.2	198.6
(+) Target - Rental Expense:	$ M	78.6	82.1	87.3	89.9	92.1
(+) Goodwill Impairment Charge:	$ M	-	-	-	-	-
(+) Asset Impairment Charges:	$ M	-	-	-	-	-
(-) OpEx Synergies:	$ M	(11.8)	(37.0)	(62.9)	(74.0)	(74.0)
(+) Amortization of New Intangibles:	$ M	11.0	11.0	11.0	11.0	11.0
(+) Depreciation of PP&E Write-Up:	$ M	1.9	1.9	1.9	1.9	1.9
Operating Expenses:	$ M	**1,422.6**	**1,438.4**	**1,459.1**	**1,474.5**	**1,512.2**
Operating Income:	$ M	**321.4**	**377.4**	**416.3**	**437.6**	**449.1**

In this next section, you literally add together the Operating Expenses of the Buyer and Seller. Then, you reflect any synergies (negatives here since they reduce expenses) as well as the new D&A from Assets written up in the deal.

If there are substantial synergies, the Combined Operating Income could easily be greater than Buyer Operating Income + Seller Operating Income.

But if there are few-to-no synergies, the Combined Operating Income will almost certainly be less because of the new Depreciation & Amortization.

Next, you calculate the Combined Pre-Tax Income by factoring in the Net Interest Income from the Buyer and Seller, the Foregone Interest on Cash, and the Interest on New Debt:

Combined Income Statement:	Units:	Projected FY14	FY15	FY16	FY17	FY18
Operating Income:	*$ M*	**321.4**	**377.4**	**416.3**	**437.6**	**449.1**
(+) Acquirer - Net Interest Income:	*$ M*	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)
(+) Target - Net Interest Income:	*$ M*	0.5	0.5	0.5	0.5	0.5
(-) Foregone Interest on Cash:	*$ M*	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)
(-) Interest Paid on New Debt Issued:	*$ M*	(95.4)	(91.6)	(88.3)	(80.1)	(70.3)
(+) Interest Saved on Refinanced Debt:	*$ M*	2.0	2.0	2.0	2.0	2.0
Net Interest Income / (Expense):	*$ M*	**(95.5)**	**(91.7)**	**(88.4)**	**(80.2)**	**(70.4)**
Pre-Tax Income:	*$ M*	**225.9**	**285.7**	**328.0**	**357.4**	**378.7**

Cash Used * Foregone Interest Rate on Cash.

This one changes each year as the company repays Debt (see the next step)!

If the Buyer or Seller repaid or changed the terms of existing Debt, we have to factor that in as well.

The "Interest Saved on Refinanced Debt" line is a bit unusual; it's in the model because the *Buyer* repaid its existing Debt in this deal.

Finally, you calculate the Combined Net Income by applying the Buyer's Tax Rate to the Combined Pre-Tax Income.

Then, Combined EPS equals the Combined Net Income divided by the Total Shares Outstanding – the Buyer's existing shares plus the new ones issued in the deal:

Combined Income Statement:	Units:	Projected FY14	FY15	FY16	FY17	FY18
Pre-Tax Income:	*$ M*	**225.9**	**285.7**	**328.0**	**357.4**	**378.7**
(-) Income Tax Provision:	*$ M*	(76.8)	(97.1)	(111.5)	(121.5)	(128.8)
Net Income:	*$ M*	**149.1**	**188.5**	**216.5**	**235.9**	**249.9**
Net (Income) / Loss Attrib. to NCI:	*$ M*	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
Net Income to Common:	*$ M*	**$ 148.9**	**$ 188.3**	**$ 216.2**	**$ 235.7**	**$ 249.7**
(+) Acquirer - Diluted Shares:	*M Shares*	48.504	48.504	48.504	48.504	48.504
(+) Shares Issued in Transaction:	*M Shares*	0.000	0.000	0.000	0.000	0.000
Total Diluted Shares:	*M Shares*	**48.504**	**48.504**	**48.504**	**48.504**	**48.504**
Acquirer - Standalone EPS:	*$ / Share*	$ 2.88	$ 3.10	$ 3.14	$ 3.17	$ 3.28
Earnings Per Share (EPS):	*$ / Share*	**$ 3.07**	**$ 3.88**	**$ 4.46**	**$ 4.86**	**$ 5.15**
Accretion / (Dilution) - $:	*$ / Share*	$ 0.18	$ 0.78	$ 1.32	$ 1.69	$ 1.87
Accretion / (Dilution) - %:	*%*	6.4%	25.2%	42.1%	53.2%	57.2%

Always based on the Buyer's Tax Rate.

Shares Issued is based on the Buyer's assumed share price at the time of the deal, which is one flaw of this analysis.

We're **not** quite done because we still have to forecast how the Combined Company's Cash and Debt balances change over time.

We might be able to ignore those changes for a 100% Cash or 100% Stock deal, but they're quite important for any deal that involves substantial Debt.

And this deal is 100% Debt!

6) Calculate Cash Flow, Debt Repayment, and Key Metrics and Ratios

You do **not** need full Cash Flow Statement projections for both companies, but you do need to project the major, recurring line items on the Cash Flow Statement: D&A, the Change in Working Capital, CapEx, and so on.

Here, we projected the *key drivers* for the Buyer and Seller but built a real Cash Flow Statement only for the Combined Company.

We did this to track how the Combined Company's Cash and Debt balances change.

If the company has enough cash flow to repay Debt, for example, then the Interest Expense on New Debt will be different in future years, which will affect accretion/dilution.

And if the company generates enough cash flow to boost its Cash balance over time, its Net Interest Income will increase.

It's *most* important to create these cash flow projections in deals with a significant amount of Debt where the Combined Company also *repays* substantial Debt each year.

They're less important for 100% Cash and 100% Stock (or *mostly* Cash/Stock) deals because with those, only the Cash balance will change – and interest rates on Cash are very low.

Here's our Combined Cash Flow Statement:

Cash Flow and Debt Repayment:	Units:	FY14	FY15	FY16	FY17	FY18
		Projected				
Net Income:	$ M	$ 149.1	$ 188.5	$ 216.5	$ 235.9	$ 249.9
Combined Company Non-Cash Adjustments:						
(+) Depreciation & Amortization:	$ M	115.9	119.9	123.2	125.1	128.5
(+) Amortization of New Intangibles:	$ M	11.0	11.0	11.0	11.0	11.0
(+) Depreciation of PP&E Write-Up:	$ M	1.9	1.9	1.9	1.9	1.9
(+) Tuxedo Rental Amortization:	$ M	31.1	32.0	32.7	33.0	33.7
(+) Loss on Disposition of Assets:	$ M	-	-	-	-	-
(+) Goodwill Impairment Charge:	$ M	-	-	-	-	-
(+) Asset Impairment Charge:	$ M	-	-	-	-	-
(+) Deferred Taxes & Rent:	$ M	4.8	5.0	5.1	5.1	5.2
Change in Working Capital:	$ M	(44.1)	(49.9)	(43.0)	(25.1)	(44.2)
Cash Flow from Operations:	$ M	**269.7**	**308.3**	**347.2**	**386.8**	**386.0**
(-) Capital Expenditures:	$ M	(123.7)	(133.1)	(148.9)	(157.3)	(173.3)
(-) Dividends:	$ M	(42.7)	(45.9)	(46.4)	(46.9)	(48.5)
(-) Integration Costs:	$ M	(33.3)	(66.7)	-	-	-
(-) Existing Debt Principal Repayments:	$ M	-	-	-	-	-
Cash Flow for Debt Repayment:	$ M	**70.0**	**62.7**	**151.9**	**182.6**	**164.3**
Beginning Transaction Debt Balance:	$ M	1,772.5	1,702.5	1,639.8	1,487.9	1,305.4
Additional Borrowing / (Repayments):	$ M	(70.0)	=-MIN(K132,K134)		(182.6)	(164.3)
Ending Transaction Debt Balance:	$ M	**1,702.5**	**1,639.8**	**1,487.9**	**1,305.4**	**1,141.1**
Beginning Existing Debt Balance:	$ M	-	-	-	-	-
Additional Borrowing / (Repayments):	$ M	-	-	-	-	-
Ending Existing Debt Balance:	$ M	**-**	**-**	**-**	**-**	**-**
Total Debt Balance:	$ M	**1,702.5**	**1,639.8**	**1,487.9**	**1,305.4**	**1,141.1**
Total Cash Balance:	$ M	**202.4**	**202.4**	**202.4**	**202.4**	**202.4**

This whole first part is a very standard Cash Flow from Operations section; the main differences are that we eliminated SBC and included the new D&A from the acquisition effects.

There are no existing Debt principal repayments since the Acquirer repays its existing Debt in the deal.

Integration Costs are new, and we assume that the Acquirer will continue to issue Dividends since shareholders have come to expect them.

We repay the lesser of the Cash Flow Available or the Beginning Debt Balance each year; notice how the starting number reflects the deduction for Financing Fees.

The fact that the Transaction Debt decreases from ~$1.8 billion to ~$1.1 billion is significant because it means that the Interest Expense on this Debt also decreases substantially:

Combined Income Statement:	Units:	FY14	FY15	FY16	FY17	FY18
		Projected				
Operating Income:	$ M	**321.4**	**377.4**	**416.3**	**437.6**	**449.1**
(+) Acquirer - Net Interest Income:	$ M	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)
(+) Target - Net Interest Income:	$ M	0.5	0.5	0.5	0.5	0.5
(-) Foregone Interest on Cash:	$ M	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)
(-) Interest Paid on New Debt Issued:	$ M	(95.4)	(91.6)	(88.3)	(80.1)	(70.3)
(+) Interest Saved on Refinanced Debt:	$ M	2.0	2.0	2.0	2.0	2.0
Net Interest Income / (Expense):	$ M	**(95.5)**	**(91.7)**	**(88.4)**	**(80.2)**	**(70.4)**
Pre-Tax Income:	$ M	**225.9**	**285.7**	**328.0**	**357.4**	**378.7**

If the Acquirer built up a much higher Cash balance, these items would change.

The real significance of the Debt repayment.

Once you've set up this schedule and linked everything properly, you can calculate the **Key Metrics and Ratios** for the deal.

These aren't "required," but they do help you draw conclusions about the deal, such as:

- Does the Combined Company have too much **Debt**? Or could it use *more* Debt to fund the deal?
- Is the Combined Company **growing** more quickly or more slowly than the standalone Buyer and Seller?
- How much of an impact do **synergies** make on the Combined Company's margins?

For retailers, airlines, and other companies that use a mix of operating leases and capital leases, it's helpful to look at EBITDAR and related metrics like (Total Debt + Capitalized Leases) / EBITDAR.

Here are the metrics we analyzed for this deal:

		Projected				
Combined Co. - Key Metrics and Ratios:	*Units:*	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**
Operating Lease Capitalization Multiple:	7.0 x					
Capitalized Operating Leases:	*$ M*	1,789.6	1,831.7	1,928.3	1,960.2	2,034.9
Total Debt + Capitalized Leases:	*$ M*	3,492.1	3,471.5	3,416.2	3,265.6	3,176.0
Revenue Growth:	*%*	*3.1%*	*3.4%*	*2.9%*	*1.6%*	*2.8%*
Gross Margin:	*%*	*48.2%*	*48.5%*	*48.7%*	*48.9%*	*48.8%*
Operating Margin:	*%*	*8.9%*	*10.1%*	*10.8%*	*11.2%*	*11.2%*
EBITDA Margin:	*%*	*13.3%*	*14.5%*	*15.2%*	*15.6%*	*15.5%*
Net Margin:	*%*	*4.1%*	*5.0%*	*5.6%*	*6.0%*	*6.2%*
Effective Tax Rate:	*%*	*34.0%*	*34.0%*	*34.0%*	*34.0%*	*34.0%*
D&A % Revenue:	*%*	*3.2%*	*3.2%*	*3.2%*	*3.2%*	*3.2%*
CapEx % Revenue:	*%*	*3.4%*	*3.6%*	*3.9%*	*4.0%*	*4.3%*
Total Debt / EBITDA:	*x*	*3.5 x*	*3.0 x*	*2.5 x*	*2.1 x*	*1.8 x*
Total Debt + Cap. Leases / EBITDAR:	*x*	*4.7 x*	*4.3 x*	*4.0 x*	*3.7 x*	*3.5 x*
Net Debt / EBITDA:	*x*	*3.1 x*	*2.7 x*	*2.2 x*	*1.8 x*	*1.5 x*
Net Debt + Cap. Leases / EBITDAR:	*x*	*4.5 x*	*4.1 x*	*3.7 x*	*3.4 x*	*3.3 x*
EBITDA / Net Interest Expense:	*x*	*5.0 x*	*5.9 x*	*6.6 x*	*7.6 x*	*8.9 x*
Total Debt / Equity:	*x*	*1.8 x*	*1.5 x*	*1.2 x*	*0.9 x*	*0.7 x*
Total Debt / Capital:	*%*	*63.8%*	*59.7%*	*53.8%*	*47.1%*	*40.6%*
Net Debt / Equity:	*x*	*1.6 x*	*1.3 x*	*1.0 x*	*0.8 x*	*0.6 x*
Net Debt / Net Capital:	*%*	*60.8%*	*56.5%*	*50.1%*	*42.9%*	*36.0%*

Doing this to support EBITDAR-based metrics and for comparisons with peer companies.

Nothing too surprising; growth rates and margins are in between those of the Acquirer and Target, with synergies making a modest impact.

This section implies that the Acquirer might be able to use **more Debt** to fund this deal because the post-deal Debt / EBITDA ratio isn't *that* high (other companies in the sector have higher ratios) and because it de-levers fairly quickly.

So we might conclude that the Acquirer **can afford to pay more** – especially since the deal is EPS-accretive even in Year 1 – and that it can use additional Debt to do so.

7) Calculate Accretion / Dilution and Create Sensitivity Tables

With the entire model in place, you now go back to the EPS accretion/dilution calculations and make sure they reflect the changes in Debt and Cash.

You might also calculate variations of normal EPS, such as "Pro-Forma EPS," that add back non-cash charges like the new D&A created in the deal:

Combined Income Statement:	Units:	FY14	FY15	FY16	FY17	FY18
		Projected				
Net Income:	*$ M*	**149.1**	**188.5**	**216.5**	**235.9**	**249.9**
Net (Income) / Loss Attrib. to NCI:	*$ M*	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
Net Income to Common:	*$ M*	**$ 148.9**	**$ 188.3**	**$ 216.2**	**$ 235.7**	**$ 249.7**
(+) Acquirer - Diluted Shares:	*M Shares*	48.504	48.504	48.504	48.504	48.504
(+) Shares Issued in Transaction:	*M Shares*	0.000	0.000	0.000	0.000	0.000
Total Diluted Shares:	*M Shares*	**48.504**	**48.504**	**48.504**	**48.504**	**48.504**
Acquirer - Standalone EPS:	*$ / Share*	$ 2.88	$ 3.10	$ 3.14	$ 3.17	$ 3.28
Earnings Per Share (EPS):	*$ / Share*	**$ 3.07**	**$ 3.88**	**$ 4.46**	**$ 4.86**	**$ 5.15**
Accretion / (Dilution) - $:	*$ / Share*	$ 0.18	$ 0.78	$ 1.32	$ 1.69	$ 1.87
Accretion / (Dilution) - %:	*%*	6.4%	25.2%	42.1%	53.2%	57.2%
Pro-Forma Earnings Per Share (EPS):	*$ / Share*	=((+J90+J78+J77)*(1-Buyer_Tax_Rate)+J95)/J100				**$ 5.32**
Pro-Forma Accretion / (Dilution) - $:	*$ / Share*	$ 0.36	$ 0.96	$ 1.49	$ 1.86	$ 2.05
Pro-Forma Accretion / (Dilution) - %:	*%*	12.4%	30.9%	47.6%	58.7%	62.5%

The Pro-Forma EPS figure adds back the new D&A created by the Asset write-ups in this deal.

We are not huge fans of these metrics, but many companies use them.

We don't like these "Pro-Forma" metrics because they **understate the true cost of an acquisition**.

If a Buyer has paid a huge premium for a Seller, you'd never know it from the Pro-Forma figures because they exclude items like the Amortization of Intangibles.

Another problem is that no one agrees on the exact definition of "Pro-Forma EPS": Some people add back all non-cash acquisition effects, others also add back Stock-Based Compensation, and others add back *all* non-cash expenses.

Still, many companies use these figures and report them in press releases, so you should be familiar with them.

You can also analyze the deal under different purchase prices, different mixes of Cash, Debt, and Stock, different interest rates, and different synergy levels using **sensitivity tables**.

Here are a few examples for this deal:

Sensitivity - Year 1 Pro-Forma EPS Accretion / (Dilution) - Purchase Price per Share vs. % Debt Used (Remainder Funded with Stock):

			% Debt Used:								
			60.0%	65.0%	70.0%	75.0%	80.0%	85.0%	90.0%	95.0%	100.0%
	$ 56.24	35.0%	$ 0.24	$ 0.27	$ 0.30	$ 0.33	$ 0.37	$ 0.41	$ 0.45	$ 0.49	$ 0.53
	58.32	40.0%	0.20	0.23	0.26	0.29	0.33	0.37	0.41	0.45	0.49
Premium	60.41	45.0%	0.15	0.18	0.22	0.25	0.29	0.32	0.36	0.41	0.45
Paid and Per	62.49	50.0%	0.11	0.14	0.17	0.21	0.24	0.28	0.32	0.36	0.41
Share	65.00	56.0%	0.06	0.09	0.13	0.16	0.19	0.23	0.27	0.31	0.36
Purchase	66.66	60.0%	0.03	0.06	0.09	0.13	0.16	0.20	0.24	0.28	0.33
Price:	68.74	65.0%	(0.01)	0.02	0.05	0.09	0.12	0.16	0.20	0.24	0.28
	70.82	70.0%	(0.05)	(0.02)	0.01	0.05	0.08	0.12	0.15	0.20	0.24
	72.91	75.0%	(0.08)	(0.06)	(0.03)	0.01	0.04	0.08	0.11	0.16	0.20

With 100% Debt, the deal is still accretive in Year 1 even at much higher purchase prices. More of an issue at lower Debt levels.

Sensitivity - Year 1 Pro-Forma EPS Accretion / (Dilution) - Purchase Price per Share vs. Revenue Synergies:

			Revenue Synergies as a % of Combined Company Year 1 Revenue:								
	Year 1 Rev. Synergies:		$ -	$ 7.2	$ 14.5	$ 21.7	$ 28.9	$ 36.2	$ 43.4	$ 50.6	$ 57.8
			-	0.2%	0.4%	0.6%	0.8%	1.0%	1.2%	1.4%	1.6%
	$ 56.24	35.0%	$ 0.53	$ 0.58	$ 0.63	$ 0.68	$ 0.72	$ 0.77	$ 0.82	$ 0.87	$ 0.91
	58.32	40.0%	0.49	0.54	0.59	0.63	0.68	0.73	0.78	0.82	0.87
Premium	60.41	45.0%	0.45	0.50	0.55	0.59	0.64	0.69	0.73	0.78	0.83
Paid and Per	62.49	50.0%	0.41	0.46	0.50	0.55	0.60	0.65	0.69	0.74	0.79
Share	65.00	56.0%	0.36	0.41	0.45	0.50	0.55	0.60	0.64	0.69	0.74
Purchase	66.66	60.0%	0.33	0.37	0.42	0.47	0.51	0.56	0.61	0.66	0.70
Price:	68.74	65.0%	0.28	0.33	0.38	0.43	0.47	0.52	0.57	0.61	0.66
	70.82	70.0%	0.24	0.29	0.34	0.38	0.43	0.48	0.53	0.57	0.62
	72.91	75.0%	0.20	0.25	0.29	0.34	0.39	0.44	0.48	0.53	0.58

With a modest amount of revenue synergies, the deal is still accretive even at much higher purchase prices.

Sensitivity - Year 1 Pro-Forma EPS Accretion / (Dilution) - Purchase Price per Share vs. Interest Rate on Debt (100% Debt Deal):

			Weighted Average Debt Interest Rate:								
			3.0%	3.5%	4.0%	4.5%	5.0%	5.4%	6.0%	6.5%	7.0%
	$ 56.24	35.0%	$ 1.03	$ 0.93	$ 0.82	$ 0.72	$ 0.61	$ 0.53	$ 0.40	$ 0.30	$ 0.20
	58.32	40.0%	1.01	0.90	0.79	0.68	0.57	0.49	0.36	0.25	0.14
Premium	60.41	45.0%	0.98	0.87	0.76	0.65	0.54	0.45	0.31	0.20	0.09
Paid and Per	62.49	50.0%	0.96	0.85	0.73	0.61	0.50	0.41	0.27	0.15	0.03
Share	65.00	56.0%	0.93	0.81	0.69	0.57	0.45	0.36	0.21	0.09	(0.03)
Purchase	66.66	60.0%	0.91	0.79	0.67	0.54	0.42	0.33	0.17	0.05	(0.07)
Price:	68.74	65.0%	0.89	0.76	0.64	0.51	0.38	0.28	0.13	(0.00)	(0.13)
	70.82	70.0%	0.87	0.74	0.61	0.47	0.34	0.24	0.08	(0.05)	(0.18)
	72.91	75.0%	0.84	0.71	0.57	0.44	0.30	0.20	0.03	(0.10)	(0.24)

The interest rates would have to increase significantly for the deal to turn dilutive, even at higher purchase prices.

These tables reinforce the conclusions we already drew: It seems like the Acquirer could pay a higher price, use Debt to fund that higher price, and still end up with an accretive deal.

In real life, you might use this analysis to **screen** for potential Sellers or as part of the negotiation process in the deal.

Just because an M&A deal is accretive doesn't mean it's a good idea.

Accretion/dilution analysis, like valuation and DCF modeling, is a way to screen for companies and check whether or not a deal makes some financial sense.

But no one in the history of human civilization has ever said, "Aha! This deal is accretive. Therefore, let's stop everything and acquire this company right away!"

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