

Case Study 7
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"We, the listed group members, certify that we have complied with the University of Rochester's Academic Honesty Policy in completing this assignment. We understand that any failure to comply with the Academic Honesty Policy will result in severe penalties, such as an automatic failing grade for the course and a report to the university administration."

## **Executive Summary:**

CSX has made a two-tiered offer to acquire Conrail. Under the agreement, CSX would purchase 90.5 million Conrail shares ("acquisition shares") to complete the acquisition. Paying 40% cash and 60% with stock, CSX is initially offering a blended value of \$89.07 per share (\$8.3b total). Following the announcement of the merger, competitor Norfolk Southern came in with a hostile takeover bid of \$9.1b to acquire Conrail. Both companies are eager to acquire Conrail to bolster their own business and challenge their competition.

Conrail is very attractive for acquisition since they control a huge portion of rail routes in the northeast region of america. However, this offer was met with certain hurdles, which involved a hostile bid, and also the Pennsylvania Business Anti-Takeover Law.

Our valuation calculated that Norfolk Southern will have a higher pre-merger combined equity value (\$27.8b) compared to CSX (\$27.3b). The merger would generate more synergies for Norfolk Southern (\$10.6b) than for CSX (\$8.4b). Ultimately, it is more important for Norfolk Southern to acquire Conrail due to their lack of diversification, but the acquisition would be tremendously beneficial for either company.

Although CSX offered a lower price per share than Norfolk Southern did, the inevitable delays from the NS-merger would make their offering significantly less valuable, so Conrail shareholders should vote to opt-out and merge with CSX.

We also complete sensitivity analysis for our findings.

# **Case Analysis:**

The following analysis is our deliverable to the general shareholders and the board of directors of Consolidated Rail Corporation (Conrail) regarding CSX's merger offer. As a diversified transportation company with a railroad subsidiary controlling almost 31% of the eastern Class 1 railroad routes (A, 3), CSX has great interest in bolstering its railroad operations. Merging with Conrail would provide CSX with routes complementary to their own and hold almost 70% of the Eastern rail freight market (A, 3). CSX would also be able to improve operations into the South and Midwest. In addition, CSX's merger would provide a great advantage over their primary competitor, Norfolk Southern. Overall, a CSX-Conrail merger would improve revenues while reducing costs, open up new opportunities for expansion, and dominate Norfolk Southern.

## **CSX's Merger Offer:**

To evaluate CSX's offer, we compare the Standalone Equity Values of CSX and Conrail before the merger announcement to the Combined Equity Value of the company before the transaction takes place. This analysis allows us to measure the value of each company as well as the value of the synergies created by the merger and ultimately evaluate the fairness of CSX's offer.

Calculating the standalone equity values of CSX and Conrail was as simple as multiplying the number of outstanding shares by the share price the day before the announcement (Fig 1). We also totalled the debt value and summed it with the equity to calculate the firms' Total Value (Fig 1).

Next, we sought to find the present value of the synergies created as a result of the CSX-Conrail merger. To do this, we used the following equation:

PV(Synergies) = PV(Synergies affecting Vu) + PV(Synergies affecting FSE)To calculate the PV(Synergies Affecting  $V_U$ ), we used the APV method to account for the non-constant and constant growth periods for the projected gains in operating income. For the non-constant growth period, we needed to discount projected gains using  $r_a$ . Using CAPM, we know that  $r_A = r_f + \beta_A * MRP$ . We used the return on a 5-year government bond as our risk-free rate (6.28%, Exh 8), since the non-constant growth period lasts roughly five years. As an estimate for the 1996 market risk premium, we found MRP = 3.15% (Professor Aswath Damodaran). To calculate  $\beta_A$ , we used the unlevering formula:  $\beta_A = (\frac{D}{V})\beta_D + (\frac{E}{V})\beta_E$ . To estimate  $\beta_D$ , we used the CSX 1996's Moody's credit rating (which was an A) and used Exhibit 8 to convert this rating into a debt yield ( $r_d = 7.71$ ). Then, we used the CAPM to calculate  $\beta_D = \frac{r_D - r_f}{MRP}$  (Figure 3).  $\beta_E$  was provided in Exhibit 8, and D/V and E/V ratios were calculated with data from Figure 1 (Figure 3). Finally, we discounted our synergy cash flows using  $r_a$  for the non-constant growth period (Figure 4). It is worth noting that we elected to use CSX's  $r_a$  since we assumed that the riskiness of these synergy-cash-flows would be roughly equal to CSX's pre-existing operations.

To calculate the PV of the constant growth period, we calculated a terminal value at 3% growth rate (Exhibit 7). We also assumed that CSX would rebalance the D/V after each period, so we calculate  $WACC_{ME}$  for our terminal value:  $TV = \frac{CF[t+1]}{WACC_{ME} - g}$  (Figure 5, 6). We then discounted the terminal value by four years using  $r_f$  (Figure 6). With the present value of the non-constant and constant growth periods, we calculated the  $PV(Synergies affecting V_{IJ})$  (Figure 6).

To value the  $PV(Synergies\ affecting\ FSE)$ , we focused on the interest tax shields. We calculated and discounted the value of the interest tax shields for the non-constant growth period (Figure 7), and then calculated the terminal value of the tax shields: TV(TS) = TV(L) - TV(U). We discounted TV(U) using  $r_A$  and TV(L) using  $WACC_{ME}$  (Figure 8). Finally, we discounted the terminal value using  $r_A$  because debt and interest inherit the value of the firm's assets, so  $r_{TS} = r_A$  (Figure 8). We then summed the non-constant and constant values to calculate  $PV(Synergies\ affecting\ FSE)$  (Figure 9). Note that the only financial side effect we accounted for was the interest tax shields; reduced distress costs also exist, but we assumed they were negligible in this case.

After all this analysis, we were able to calculate Pre-Merger Combined Equity Value:  $PV_{AB} = PV_A + PV_B + PV(Synergies) = \$26,895$  (Figure 10). This meant that Conrail's Equity Value would increase by \$11.8b, prior to the merger transaction (Figure 10). In principle, this means that CSX should be willing to pay up to \$11.8b to acquire Conrail; therefore, CSX's initial \$8.3b offer would be a strong deal for CSX. It should be noted that CSX could be willing to pay even more than \$11.8b, since a failure to merge could result in a Norfolk-Southern-Conrail deal that would directly harm CSX's business.

With CSX's offer assessed, its payment structure must be analyzed. CSX offered to purchase 90.5m acquisition shares (A, 4), paying 40% with cash and 60% with a stock swap. CSX's inclusion of stock as part of the acquisition allowed them to avoid paying too much cash. It must be noted that CSX's cash payment was split into two steps because of Pennsylvania's "fair value" statute. This statute required the two-step payment and impeded CSX's acquisition deal since target shareholders had to vote to nullify the provision (A, 4), which in turn gave Norfolk Southern an opportunity to start a bidding war.

Assuming CSX's offer goes through, we calculate the post-merger equity value by subtracting the value of the payment from the pre-merger equity value (Figure 12, 14). We also analyze the stock-swap portion of the payment to find the implicit value of the stock swap and verify accuracy using the "blended value" estimate (Figure 13, 15).

As part of the offer, CSX implemented several conditions. The "break-up" provision would give CSX \$300m if the deal fell through, effectively acting as an insurance policy. This provision is especially important since CSX management could insure against the readily anticipated competing Norfolk-Southern-Conrail merger offer. The "lock-up" provision permitted CSX to buy a portion of Conrail's shares, allowing them to acquire some ownership of the target firm and make it less attractive for a hostile takeover by taking stock out of play. The "no-talk" clause forbade Conrail

from actively soliciting offers from other firms, improving CSX's chances of a takeover. Note that this clause does not forbid Conrail from considering unsolicited offers from other firms.

#### Norfolk Southern's Hostile Bid

In response to CSX's merger offer, competitor Norfolk Southern quickly commenced a bidding war to acquire Conrail. In the words of Norfolk Southern's CEO, "A CSX-Conrail combination posed a serious threat to Norfolk Southern" citings concerns "about being excluded from important markets in the Northeast" (B, 1). This quote epitomizes the origins of Norfolk Southern's offer: Norfolk Southern were scared of losing out and suffering losses from a CSX-Conrail merger. In essence, CSX would become too powerful of a competitor, and Norfolk Southern wanted to avoid this as much as possible - even resorting to lawsuits (B, 3) and propaganda (Exhibit 9a) to stop CSX's acquisition. As in the case of CSX, Norfolk Southern would also benefit from synergies gained from acquiring Conrail for reasons previously stated.

To assess Norfolk Southern's bid, we followed the same approach as we did with CSX. Note that we used the values from Case B. We computed the standalone equity values for Norfolk Southern and Conrail prior to the merger announcement (Figure 16). Then, we used the APV formula to value the PV(Synergies) as previously described (Figures 17-24). It should be noted that we again used the 5 year bond to estimate the risk free rate ( $r_f = 6.33\%$ ), and that we used Moody's 'AA' rating for Norfolk Southern's corporate bonds to find the cost of debt as part of our calculations for  $\beta_A$  and  $r_a$  for discounting (Figure 18). Once again, for our PV(Synergies affecting FSEs), we only accounted for interest tax shields and assumed reduced distress costs were negligible. After computing PV(Synergies), we found that the Norfolk-Southern-Conrail Pre-Merger Equity Value was \$27.2b, generating gains of \$15.6b for Norfolk Southern equity holders (Figure 25). Once more, this analysis suggests that Norfolk Southern should be willing to pay up to \$15.6b to make the acquisition happen. Again, Norfolk Southern could be willing to pay even more than this to prevent future losses incurred by a CSX-Conrail merger.

Norfolk Southern's \$15.6b willingness-to-pay is higher than CSX's \$11.8b, so they should bid higher in a bidder war (provided they can afford to). In addition, Norfolk Southern probably has a higher stake in this deal since they operate primarily in the railroading business. Insurmountable competition in the railroading business would be catastrophic for Norfolk Southern. On the other hand, CSX is a more diversified transportation company, so while railroading losses would harm the firm, it would be less likely to totally destroy it. Overall, our analysis shows that Norfolk Southern should be willing to pay significantly more than CSX is in a bidding war.

#### **Shareholder Decision**

On January 17, 1997, Conrail shareholders will vote on opting-out of Pennsylvania's "fair value" statute. A vote to opt-out would result in a CSX-Conrail merger, and a vote against could lead to a Norfolk-Southern-Conrail merger in the future. However, CSX's offer provisions would create significant delays for Norfolk Southern's deal, potentially delaying a deal by "as long as two years" (B, 4). According to CSX's analysis, a "customary discount rate of 2% per month", the present value of Norfolk Southern's \$115 offer is "less than \$90 per Conrail share", which is less than the \$110 per share offered by CSX. Similarly, investing the \$110 received from CSX's offer at the risk-free rate (6.28%) for two years would give you \$117.48 in year one, \$124.85 in year two which is a lot more than \$115 in two years as offered by Norfolk Southern (considering longest possible delay). In either case, CSX's bid definitely gives more value to Conrail's shareholders than the Norfolk Southern bid, so shareholders should opt-out in the vote.

### **Sensitivity Analysis**

For our sensitivity analysis, we adjusted several variables. Results can be observed in Figures 26 and 27. We demoted the credit rating of each company by one step and found almost negligible differences. We tried using a D/V ratio closer to the target firm's D/V ratio and saw that the value of interest tax shields increased, generating an additional \$1.4b in gains for CSX and

\$0.4b for Norfolk Southern. We also increased inflation which bolstered the TV of ITS, generating \$0.4b for CSX and \$0.6b for Norfolk Southern.

#### Appendix:

The Acquisition of Consolidated Rail Corporation (A). (2005). Benjamin Esty. https://hbsp.harvard.edu

EQUITY RISK PREMIUMS: LOOKING BACKWARDS AND FORWARDS. (2014). Aswath Damodaran. http://people.stern.nvu.edu/adamodar/pdfiles/country/ERP2014.pdf

MOODY'S LONG-TERM DEBT RATINGS OF CSX (SENIOR at A3) AND ITS SUBSIDIARIES ON WATCH FOR POSSIBLE DOWNGRADE, MONITORS CONRAIL RATINGS FOLLOWING PROPOSED MERGER ANNOUNCEMENT. (1996, October 15). Moodys.com. <a href="https://www.moodys.com/research/MOODYS-PLACES-LONG-TERM-DEBT-RATINGS-OF-CSX-SENIOR-at--PR">https://www.moodys.com/research/MOODYS-PLACES-LONG-TERM-DEBT-RATINGS-OF-CSX-SENIOR-at--PR">1691</a>

Consolidated Rail 1996-A ETCs Rated 'AA' by S&P. (1996, June 27). Https://www.Spglobal.Com/Ratings.

http://www.alacrastore.com/s-and-p-credit-research/Consolidated-Rail-1996-A-ETCs-Rated-AA-by-S-P-77649

MOODY'S REVIEWS DEBT RATINGS OF NORFOLK SOUTHERN CORPORATION (SENIOR AT Aa3) AND ITS SUBSIDIARIES FOR POSSIBLE DOWNGRADE; CONTINUES TO MONITOR CONRAIL'S RATINGS. (1996, October 23). Moodys.com. https://www.moodys.com/research/MOODYS-REVIEWS-DEBT-RATINGS-OF-NORFOLK-SOUTHERN-CORPORATION-SENIOR-AT--PR 7811

Triami Media. (2010). Inflation United States 2000 – CPI inflation United States 2000. https://www.inflation.eu/en/inflation-rates/united-states/historic-inflation/cpi-inflation-united-states-2000.aspx

#### PART A - Data for CSX

Figure 1: Standalone values

Standalone Firm Values				
BS 3Q 1996	Acquirer	Target	Competitor	
Dollars in Millions	CSX	Conrail	Northern Southfo	olk
Market Share Price	\$71.00	\$49.50	\$92.00	<< A page 4 & B Exh 8
# Shares Outstanding (thousands)	212,567	77,443	126,912	
Total Equity	\$15,092	\$3,833	\$11,676	
Current Portion of LTD	\$201	\$79	\$56	
ST Debt	\$276	\$45	\$44	
LT Debt	\$2,288	\$1,811	\$1,800	
Total Debt Value	\$2,765	\$1,935	\$1,900	
Firm Value (V{L})	\$17,857	\$5,768	\$13,576	
Standalone Value	\$15,092	\$3,833	\$11,676	

Figure 2: CSX Synergies

Finding PV Synergies (APV method)					
	1997	1998	1999	2000	2001
Cost Reduction Gain	0	\$111	\$259	\$370	\$381
Gain from Norfolk	0	\$50	\$89	\$117	\$121
Gain from Others	0	\$27	\$48	\$63	\$65
Revenue Increase Gain	0	\$77	\$137	\$180	\$185
Total Gains (Synergies)	0	\$188	\$396	\$550	\$566

Figure 3: CAPM to determine return on asset

Calculating r(f) and MRP					
CSX Credit rating (A3 in Moody's)	A	- since A- was not	given on the ex	hibit we assume to use A	rating
5 year bond (rf)	6.28%				
Market Risk Premium	3.15%	http://people.stern	.nyu.edu/adamo	odar/pdfiles/country/ERP2	2014.pdf
Yield on CSX Bond (r(D))	7.71%				
Debt Beta	0.454	r(d) = r(f) + (MRP)	) * Beta	Beta = (rd - rf) / MRP	Using CAPM
D/V	15.48%				
E/V	84.52%				
Equity Beta	1.35	<< given from exh	8		
Asset Beta	1.21	<< bA = (D/V)*bD	+ (E/V)*bE		
return on asset	10.10%	CAPM			

Figure 4: Discount Synergies of NCG period by r(a)

Т	1	2	3	4	
Non Constant Growth Period	1997	1998	1999	2000	
Cost Reduction Gain	0	\$92	\$194	\$252	\$538
Revenue Increase Gain	0	\$64	\$103	\$123	\$289
Discounted Total Gains	0	\$155	\$297	\$374	\$826.21

Figure 5: WACCme for finding terminal value

r(A)	10.10%	
D/V	15.48%	
r(D)	7.71%	
Corporate Tax Rate	35%	<< Exhibit 8
WACC(me)	9.67%	

Figure 6: Terminal Value Synergies, with combined total synergies

t	growth rate	CF[t+1]	WACCme	Terminal Value
2001 (t+1)	3%	\$567	9.67%	8,502.81
	^ exh 7	Disco	unt at rf for 4 years	6664.33
PV(total synergies affecting Vu)	Non-constant growth	Constant growth	PV(Synergies)	
	\$826.21	6664.33	\$7,490.54	

Figure 7: Non-Constant Growth ITS from Gains

Non-constant growth ITS					
Year (1996 for t=0)	1	2	3	4	Total
Nominal Total Gains (Synergies)	0	\$188	\$396	\$550	
PV(Interest Tax Shields)	\$0.00	\$56.72	\$110.92	\$143.02	\$310.66

Figure 8: Terminal Value of ITS

TV(TS) = TV(L) - TV(U)			
Terminal value ITS	D/V	CF(t+1)	TV
TV(U) - use r(a)	0	\$566	\$5,606
TV(L) - use WACCme	15.48%	\$566	\$5,854
TV(Tax Shields)	\$247.66		
PV(TV(Tax Shields))	\$168.57	<< discount for 4 years at rA	

Figure 9: Total PV of ITS

TOTAL PV(ITS)		
Non-Constant Growth Period (ITS)	Constant Growth Period (ITS)	PV(ITS)
\$310.66	\$168.57	\$479.22

Figure 10: PV(AB) with gains to CSX Shareholders

Calculating PV(AB)					
Standalone CSX Equity Value	Standalone Conrail Equity Value	PV(Synergies affecting Vu)	PV(Synergies affecting FSE)	Combined Equity Value Pre-Merger	Total Gains for CSX Equity Holders
\$15,092	\$3,833	\$7,490.54	\$479.22	\$26,895	\$11,803

Figure 11: CSX Payment Information

First 40%	\$92.50	CASH per share
		Activities a course to be produced and activities
Last 60%	stock	
Blended value	\$89.07	
SWAP RA	ATIO	
CSX	Conrail	
1.85619	1	
90.5	M's of shares	
36.2	M's of shares	
54.3	M's of shares	
	SWAP R/ CSX 1.85619 90.5 36.2	SWAP RATIO           CSX         Conrail           1.85619         1           90.5         M's of shares           36.2         M's of shares

12:

Part

Payment Analysis

Figure Cash

All in millions of dollars			
CASH PART	Price Per Share	# Shares (m)	Amount Paid (\$m)
i) First stage	\$92.50	17.86	\$1,652.05
		^given A pg4	
Assuming the PA law goes thru			
	Price Per Share	# Shares (m)	Amount Paid (\$m)
ii) Second stage (if approval passes)	\$92.50	18.34	\$1,696.45
		NOTE: negligible	discounting on ^^

Figure 13: Stock Swap Part Analysis

STOCK SWAP PART	Conrail	New Issued CSX shares (exchange ratio)
Back-end offer # Shares	54.3	3 100.8
		^ in M's this gets added to post merger # shrs when calculating the new equity value

Figure 14: Post Merger Valuation

Combined Equity Value Pre-Merger	First Stage Cash Paid	Second Stage Cash Paid	Post-merger Equity value	
\$26,895	\$1,652.05	\$1,696.45	\$23,547	
			^excluding swap, which would b	e used later on for finding price per share

Figure 15: Post Merger Equity Value, Double Checking with Blended Value

Existing CSX Shares (m)	212.57	
Newly issued CSX Shares (m)	100.79	
Post Merger Equity value (\$m)	\$23,547	
Post Merger Price per share	\$75.14	

# **PART B - Data for Norfolk Southern**

Figure 16: Standalone Values

Stand Alone Valuations		
	Acquirer	Target
	Norfolk Southern	Conrail
# Shares Outstanding (m)	126.437	77.628
Price per share (\$)	\$92	\$71
Total Equity (\$m)	\$11,632	\$5,512
Current Portion of LTD (\$m)	\$56	\$207
ST Debt (\$m)	\$44	\$127
LT Debt (\$m)	\$1,800	\$1,577
Total Debt Value (\$m)	\$1,900	\$1,911
Total Firm Value (\$m)	\$13,532	\$7,423
Standalone Value (\$m)	\$11,632	\$5,512

Figure 17: Synergies for Norfolk Southern

PV(Synergies Affecting Vu)	Given Year 0 = 1996		All in Exhibit 6b	
Non-Constant Growth Period - R	Real Values			
Yea	r <b>1</b>	2	3	4
Gains from Cost Reduction	0	180	335	515
Gains from CSX	0	33	61	94
Gains from Other Sources	0	18	33	51
Gains from Revenue Increase	0	51	94	145
Total Gain in Operating Income	0	231	429	660

Figure 18: Finding R(a) of Norfolk Southern using CAPM

Calculating rf and MRP				
5-year bond yield (rf)	6.33%	<< exh 10		
Market Risk Premium (1996)	3.15%	6 << Extracted from Prof Damodaran's Data		
Calculating rA for discounting				
Norfolk Southern Credit Rating	AA	<< according to	Moody's report	
Yield on NS Corp. Bond (rD)	7.62%	<< exh 10		
Debt Beta	0.41	rd = rf + beta(d)	* MRP	beta(d) = (rd-rf)/MRP
D/V	0.1404			
Equity Beta	1.15	< exh 10		
E/V	0.8596			
Asset Beta	1.0460	<< bA = (D/V)*b	D + (E/V)*bE	
гА	9.63%			

Figure 19: Discounted NCG Periods of Synergies

Non-Constant Growth Period - Discount	ed Values				
rA	9.63%				
Year	1	2	3	4	Total
Gains from Cost Reduction	0	149.78	254.28	356.59	760.65
Gains from CSX	0	27.46	46.30	65.09	138.85
Gains from Other Sources	0	14.98	25.05	35.31	75.34
Gains from Revenue Increase	0	42.44	71.35	100.40	214.19
Total Gain in Operating Income	0	192.22	325.63	456.99	974.84

Figure 20: WACCme to find the TV

Constant Growth Period - 2001 a	and onward		all from Exhibit 6	Sb			
We will assume that company doe	s continuous rebalancin	ig after each perio	od.				
Therefore, we can use WACCme							
NOTE: we assume that risk of sy	nergy CFs is roughly	equal to risk of	pre-existing acq	uirer's operations			
	why? b/c it makes our	life easier lol. Bu	ıt explain it as "bu	siness expansion in s	ame line of busin	ess, lack of data	, simplicity, etc"
Therefore, we use rA = [acquirer	's ra] for discounting						
гА	9.63%						
Corporate Tax Rate	35%	< exh 6b					
rD	7.62%						
D/V	0.1404						
WACCme	9.24%						
Year	growth rate	CF[t+1]	WACCme	Terminal Value			
2001 (t + 1)	3%	\$680	9.24%	10,891.21			
		Discount	at rf for 4 years	8520.26			

Figure 21: PV(Synergies)

PV(Synergies affecting Vu)			
Non-Constant Growth Period	Constant Growth Period	PV(Synergies affecting Vu)	
\$974.84	\$8,520.26	\$9,495.10	

Figure 22: NCG Period of ITS

Non-constant growth ITS					
Year (1996 for t=0)	1	2	3	4	Total
Nominal Total Gains (Synergies)	0	231	429	660	
PV(Interest Tax Shields)	\$0.00	\$69.81	\$120.46	\$172.20	\$362.47

Figure 23: TV of ITS

TV(TS) = TV(L) - TV(U)			
Terminal value ITS	D/V	CF(t+1)	TV
TV(U) - use r(a)	0	\$680	\$7,065
TV(L) - use WACCme	0.1404	\$680	\$7,356
TV(Tax Shields)	\$291.54		
PV(TV(Tax Shields))	\$201.86	<< discount for 4 years at rA	

Figure 24: Total PV of ITS

TOTAL PV(ITS)		
Non-Constant Growth Period (ITS)	Constant Growth Period (ITS)	PV(ITS)
\$362.47	\$201.86	\$564.33

Figure 25: PV(AB) of Norfolk Southern

Calculating PV(AB)					
Standalone Norfolk Southern Equity Value	Standalone Conrail Equity Value			Combined Equity Value Pre-Merger	Total Gains for Southern Norfolk Equity Holders
\$11,632	\$5,512	\$9,495.10	\$564.33	\$27,203	\$15,571

Figure 26: CSX Sensitivities

CSX Sensitivity Analysis	Base Case	Baa Credit Rating	33% D/V (Conrail)	Real Inflation (3.38%)
Return on Asset	10.10%	10.15%	9.59%	10.10%
NCG Total Gains	\$826.21	\$824.80	\$838.83	\$826.21
WACCme	9.67%	9.71%	8.66%	9.71%
Terminal Value	\$6,664.33	\$6,626.48	\$7,845.08	\$7,024.49
PV(Synergies)	\$7,490.54	\$7,451.28	\$8,683.90	\$7,849.30
NCG ITS	\$310.66	\$307.19	\$310.66	\$307.19
TV ITS	\$168.57	\$174.10	\$435.18	\$168.57
PV(ITS)	\$479.22	\$481.29	\$745.83	\$479.22
Pre Merger Equity Value	\$26,895.45	\$26,858.25	\$28,355.42	\$27,298.16
Total Gains for CSX Equity Holders	\$11,803.19	\$11,765.99	\$13,263.17	\$12,205.91
Post Merger Equity Value	\$23,546.95	\$23,509.75	\$25,006.92	\$23,949.66
Post Merger Price per Share	\$75.14	\$75.03	\$79.80	\$82.86

Figure 27: Norfolk Southern Sensitivities

Norfolk Southern Sensitivity Analysis	Base Case	A Credit Rating	Conrail D/V (25.7%)	Real Inflation (3.38%)
Return on Asset	9.63%	9.64%	9.78%	9.63%
NCG Total Gains	\$974.84	\$974.47	\$970.46	\$974.84
WACCme	9.24%	9.25%	9.08%	9.24%
Terminal Value	\$8,520.26	\$8,508.80	\$8,755.81	\$9,072.44
PV(Synergies)	\$9,495.10	\$9,483.27	\$9,726.26	\$10,047.28
NCG ITS	\$362.47	\$361.48	\$362.47	\$362.47
TVITS	\$201.86	\$203.55	\$369.65	\$201.86
PV(ITS)	\$564.33	\$565.03	\$732.12	\$564.33
Pre-Merger Equity Value	\$27,203.23	\$27,192.10	\$27,602.17	\$27,755.40
Total Gains for NS Equity Holders	\$15,571.02	\$15,559.89	\$15,969.97	\$16,123.20