Team 1 Conrail Case

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Mergers and Acquisitions – 808X

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Overview

CSX, the largest railroad system in the US at the time of the case, tendered a two-stage offer to acquire, and merge, with Consolidated Rail Corporation (Conrail). This merger would create the second largest rail system in the US, the largest in Eastern US, and reinvigorate railway shipping and transportation over long-haul trucking.

The Two-Tier Offer

The two-tier offer tendered by CSX included a two-stage component to the first tier. The strong anti-takeover laws of Pennsylvania warranted the two-tier offer; breaking up the first tier into two stages provided the process and the timing for the deal to be executed in light of these strict laws. Conrail shareholders would have to provide tacit approval of the merger early on in the deal structure by opting out of the anti-takeover laws in the second stage of the first tier of the offer. This deal structure provided for financial protection and promotion of merger approval as the merger process unfolded. While Conrail management had already approved the merger, this deal structure also provided for consideration of the employees and communities that would be impacted by the merger, and ideally winning the approval of the merger by the unionized rail workers.

Defenses in Place

The no-talk clause prohibited Conrail from actively soliciting bids from other suitors, and while there was a strong ownership contingent, approximately 35% of shareholders, who supported the merger, there might be opportunities for the holdouts in the management and board ranks to upset the merger. The no-talk clause mitigated this risk to a degree, promoted continued approval of the deal, and still allowed Conrail to consider unsolicited bids that would benefit shareholders over and above the CSX offer.

The break-up fee, gaining in popularity in the 90's, would serve as a locking gate to the deal flow; while most fees were in the 1-3% range, in the case of the Conrail offer this amount was approximately 9% of the first tier offer tendered by CSX. This heavy penalty for withdraw of the merger approval would serve as an incentive to the shareholders to continue to execute the merger, and act as a detractor to other would-be suitors who might be expected to pay some or all of the fee in the event of a secondary bid.

Conrail's offer to CSX of the lock-up options and suspension of the poison pill clause can be seen as clear indicators that the management was in favor of this merger. These efforts suggest that the bid for Conrail was fair and equitable to both parties, would promote shareholder wealth for shareholders of both companies, and paved the way for an amicable and speedy process integration of the two companies post-merger.

The Valuation of Conrail

We took two different approaches to value Conrail. The first approach we used was to discount Conrail's cash flows over a 10 year period as a standalone company. The second approach used was a synergy model we developed where Conrail and CSX cash flows were valued over a 10 year horizon each as standalone firms along with a model where the cash flow inputs of both firms were combined, then assumptions made of both cost savings and revenue enhancements were made to value synergy. In our synergy model, the value of synergy was calculated by subtracting the cost of the merger from the perceived gain of the deal. Cost is measured as "*Cash Paid by Acquired-PV of target".* Gain is measured as *"PVtarget&acquirer-(PVacquirer+PVtarget).*

The cash flows in both models were estimated using the past five years of history as a guide to establish our forecasted cash flows. Three different scenarios were run through the model for sensitivity sake. The three scenarios are titled Pessimistic, Conservative and Aggressive. The differences in the scenarios are related only to the revenue enhancement assumptions. The cost savings assumptions were static since we believe the risk of this savings being compromised are minimal due to CSX acquiring a firm that operates a business that is the same as their core. The cost saving synergy is based on our assumption the combined firm will take five years to increase their operating margin to 15.5% which is the 5 year average of four peer firms. In year 6 through year 10 we assume the combined firm will increase its operating margin up to 17.1%. Our terminal value was calculated by discounting Year 10's cash flow using the perpetuity assumption. On the side of conservatism, we did not assume the terminal value to be a growing perpetuity.

The final major decision is to determine the discount factor to use in the model. The choices we considered were WACC and CAPM. We decided to use WACC as our discount factor. The main reasons we went in this direction is because the business activities of Conrail are similar to the core business activities of CSX, the fact that the financing mix used to fund the acquisition is similar to the current capital structure of CSX and we do not perceive CSX will change their required rates of return as a result of the acquisition of Conrail.

Synergy Valuations:

Pessimistic: $10.913 billion

Conservative: $18.300 billion

Aggressive: $21.525 billion

Conclusion and Recommendation

Based on the number of factors in place to promote the success of the deal transaction, the amicable nature of those factors (suspension of poison pill clauses as an example), and the value to be created by such a merger, as Conrail shareholders we would tender our shares in favor of a merger.

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Supporting Exhibits

Conrail Valuation Model

Values in millions-US Dollars

Period	1	2	3	4	5	6	7	8	9	10	
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Terminal
Operating Revenues	$ 3,713.1	$ 3,750.3	$ 3,795.3	$ 3,852.2	$ 3,919.6	$ 4,009.8	$ 4,118.0	$ 4,229.2	$ 4,356.1	$ 4,486.8	
Way and Structures	501.3	506.3	512.4	512.3	521.3	529.3	543.6	558.3	566.3	583.3	
Equipment	816.9	817.6	819.8	828.2	842.7	858.1	881.3	900.8	923.5	946.7	
General and Administrative expenses	337.9	337.5	341.6	339.0	344.9	344.8	350.0	355.3	365.9	372.4	
Transportation	1,396.1	1,406.4	1,423.2	1,440.7	1,462.0	1,487.6	1,523.7	1,560.6	1,594.3	1,633.2	
Special Charges (Not Included)	148.5	150.0	151.8	154.1	156.8	160.4	164.7	169.2	174.2	179.5	
Income from operations (5-6-7-8-9-10)	**512.4**	**532.5**	**546.5**	**577.8**	**591.9**	**629.5**	**654.8**	**685.1**	**731.8**	**771.7**	
Other Income	111.4	112.5	113.9	115.6	117.6	120.3	123.5	126.9	130.7	134.6	
Other Expense (loss on sales of subsid)	37.1	37.5	38.0	38.5	39.2	20.0	20.6	21.1	21.8	22.4	
Tax	204.2	206.3	208.7	211.9	215.6	220.5	226.5	232.6	239.6	246.8	
Net Cash Flow (10-11+12+13-14)	**382.5**	**401.3**	**413.7**	**443.0**	**454.7**	**509.2**	**531.2**	**558.3**	**601.1**	**637.1**	
Present Value of Cash Flows	**$ 351.58**	**$ 339.12**	**$ 321.38**	**$ 316.38**	**$ 298.51**	**$ 307.34**	**$ 294.73**	**$ 284.73**	**$ 281.86**	**$ 274.62**	**$ 7,256.39**
Sum of Present Value/Conrail Valuation											**$ 10,326.64**
CSX Weighted Avg Cost of Capital (WACC)	**8.780%**										

Conrail Valuation Model (Synergy) **Values in millions-US Dollars**	**Scenarios**		
	Conservative	Pessimistic	Aggressive
Gain=PV ab - (PV a + PV b)	**$ 18,537.36**	**$11,150.63**	**$ 21,762.65**
Cost = Cash Paid - PV b	**$ 237.27**	**$ 237.27**	**$ 237.27**
NPV= gain-cost	**$ 18,300.09**	**$10,913.36**	**$ 21,525.38**
NPV=Wealth with Merger-wealth without merger=(PV ab - cash) - PV a			
SYNERGY=	**$ 18,300.09**	**$10,913.36**	**$ 21,525.38**

Major Assumptions	**Conservative**	**Pessimistic**	**Aggressive**
Revenue	**Y1 annual revenue growth starts at 2.0%, increases up to 4.0% per year at Y10.**	**Y1 annual revenue growth starts at 0.0%, increases up to 3.0% per year at Y10.**	**Y1 annual revenue growth starts at 2.0%, increases .5% per year to Y10 at 6.5%**
Income from Operations	**Y1 Operating Marginis 14.0%, increased .3 to .5% per year to Y10 at 17.1%. Average peer Op Margin is 15.57%.**	**Y1 Operating Marginis 14.0%, increased .3 to .5% per year to Y10 at 17.1%. Average peer Op Margin is 15.57%.**	**Y1 Operating Marginis 14.0%, increased .3 to .5% per year to Y10 at 17.1%. Average peer Op Margin is 15.57%.**

CSX Valuation Model-Synergy (Pvab)

Values in millions-US Dollars

Period	1	2	3	4	5	6	7	8	9	10	
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Terminal
Total Operating Revenues	$ 14,421.4	$ 14,782.0	$ 15,225.4	$ 15,682.2	$ 16,231.1	$ 16,799.2	$ 17,471.1	$ 18,170.0	$ 18,896.8	$ 19,652.6	
Railway Expenses	6,951.1	7,095.3	7,262.5	7,449.0	7,677.3	7,912.4	8,176.5	8,467.2	8,768.1	9,118.8	
Other Expenses	5,307.1	5,425.0	5,557.3	5,692.6	5,891.9	6,047.7	6,289.6	6,486.7	6,746.1	6,976.7	
Special Operating Charges	144.2	147.8	152.3	156.8	162.3	168.0	174.7	181.7	189.0	196.5	
Income from operations (4-5-6-7)	**$ 2,019.0**	**$ 2,113.8**	**$ 2,253.4**	**$ 2,383.7**	**$ 2,499.6**	**$ 2,671.1**	**$ 2,830.3**	**$ 3,034.4**	**$ 3,193.6**	**$ 3,360.6**	
Other Income	216.3	221.7	228.4	235.2	243.5	252.0	262.1	272.5	283.5	294.8	
Tax	605.7	620.8	639.5	658.7	681.7	705.6	733.8	763.1	793.7	825.4	
Net Cash Flow (8+9-10)	**1,629.6**	**1,714.7**	**1,842.3**	**1,960.3**	**2,061.3**	**2,217.5**	**2,358.6**	**2,543.8**	**2,683.3**	**2,830.0**	
Present Value of Cash Flows	**$ 1,498.09**	**$ 1,449.08**	**$ 1,431.22**	**$ 1,399.97**	**$ 1,353.33**	**$ 1,338.33**	**$ 1,308.60**	**$ 1,297.43**	**$ 1,258.14**	**$ 1,219.79**	**$ 32,231.53**
Sum of Present Value/Conrail Valuation											**$ 45,785.50**
CSX Weighted Avg Cost of Capital (WACC)	**8.780%**										

CSX Valuation Model-Discounted Cash Flow-No Synergy

Values in millions-US Dollars

Period	1	2	3	4	5	6	7	8	9	10	
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Terminal
Total Operating Revenues	$ 14,171.9	$ 14,205.2	$ 14,238.6	$ 14,272.1	$ 14,305.7	$ 14,339.3	$ 14,373.0	$ 14,406.8	$ 14,440.7	$ 14,474.6	
Railway Expenses	6,834.7	6,850.8	6,866.9	6,883.0	6,899.2	6,915.4	6,931.7	6,948.0	6,964.3	6,980.7	
Other Expenses	5,213.6	5,225.8	5,238.1	5,250.4	5,262.8	5,275.1	5,287.5	5,300.0	5,312.4	5,324.9	
Special Operating Charges	180.4	180.8	181.3	181.7	182.1	182.6	183.0	183.4	183.8	184.3	
Income from operations (4-5-6-7)	**1,943.2**	**1,947.8**	**1,952.4**	**1,957.0**	**1,961.6**	**1,966.2**	**1,970.8**	**1,975.4**	**1,980.1**	**1,984.7**	
Other Income	136.3	136.6	137.0	137.3	137.6	137.9	138.3	138.6	138.9	139.2	
Tax	580.0	581.4	582.8	584.1	585.5	586.9	588.3	589.6	591.0	592.4	
Net Cash Flow (8+9-10)	**1,499.5**	**1,503.0**	**1,506.6**	**1,510.1**	**1,513.7**	**1,517.2**	**1,520.8**	**1,524.4**	**1,528.0**	**1,531.5**	
Present Value of Cash Flows	**$ 1,378.48**	**$ 1,270.20**	**$ 1,170.42**	**$ 1,078.48**	**$ 993.76**	**$ 915.70**	**$ 843.77**	**$ 777.49**	**$ 716.41**	**$ 1,407.93**	**$ 17,443.29**
Sum of Present Value/Conrail Valuation											**$ 27,995.94**
CSX Weighted Avg Cost of Capital (WACC)	**8.780%**										

CSX Valuation Model-Stand Alone DCF-CSX Corporation (Pva)

Values in millions-US Dollars

Period	1	2	3	4	5	6	7	8	9	10	
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Terminal
Total Operating Revenues	$ 10,468.6	$ 10,493.2	$ 10,517.8	$ 10,542.6	$ 10,567.4	$ 10,592.2	$ 10,617.1	$ 10,642.1	$ 10,667.1	$ 10,692.2	
Railway Expenses	3,790.2	3,799.1	3,808.1	3,817.0	3,826.0	3,835.0	3,844.0	3,853.0	3,862.1	3,871.2	
Other Expenses	5,213.6	5,225.8	5,238.1	5,250.4	5,262.8	5,275.1	5,287.5	5,300.0	5,312.4	5,324.9	
Special Operating Charges	-	-	-	-	-	-	-	-	-	-	
Income from operations (4-5-6-7)	1,464.8	1,468.2	1,471.7	1,475.1	1,478.6	1,482.1	1,485.6	1,489.0	1,492.5	1,496.1	
Other Income	25.4	25.5	25.5	25.6	25.6	25.7	25.8	25.8	25.9	25.9	
Tax	434.4	435.4	436.4	437.4	438.5	439.5	440.5	441.6	442.6	443.6	
Net Cash Flow (8+9-10)	**1,055.8**	**1,058.3**	**1,060.8**	**1,063.3**	**1,065.8**	**1,068.3**	**1,070.8**	**1,073.3**	**1,075.8**	**1,078.4**	
Present Value of Cash Flows	**$ 970.59**	**$ 894.35**	**$ 824.09**	**$ 759.36**	**$ 699.71**	**$ 644.74**	**$ 594.10**	**$ 547.43**	**$ 504.43**	**$ 464.80**	**$ 12,281.82**
Sum of Present Value/Conrail Valuation											**$ 19,185.41**
CSX Weighted Avg Cost of Capital (WACC)	**8.780%**										

Conrail Valuation Model-DCF-Conrail (PVb)

Values in millions-US Dollars

Period	1	2	3	4	5	6	7	8	9	10	
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Terminal
Operating Revenues	$ 3,703.4	$ 3,712.1	$ 3,720.8	$ 3,729.5	$ 3,738.3	$ 3,747.1	$ 3,755.9	$ 3,764.7	$ 3,773.6	$ 3,782.5	
Way and Structures	486.5	487.6	488.8	489.9	491.1	492.2	493.4	494.5	495.7	496.9	
Equipment	820.6	822.5	824.5	826.4	828.3	830.3	832.2	834.2	836.2	838.1	
General and Administrative expenses	336.8	337.6	338.4	339.2	340.0	340.8	341.6	342.4	343.2	344.0	
Transportation	1,400.6	1,403.9	1,407.2	1,410.5	1,413.8	1,417.2	1,420.5	1,423.8	1,427.2	1,430.5	
Special Charges (Not Included)	180.4	180.8	181.3	181.7	182.1	182.6	183.0	183.4	183.8	184.3	
Income from operations (5-6-7-8-9-10)	**478.5**	**479.6**	**480.7**	**481.8**	**483.0**	**484.1**	**485.2**	**486.4**	**487.5**	**488.7**	
Other Income	110.9	111.2	111.4	111.7	112.0	112.2	112.5	112.8	113.0	113.3	
Other Expense (loss on sales of subsid)	-	-	-	-	-	-	-	-	-	-	
Tax	145.7	146.0	146.4	146.7	147.0	147.4	147.7	148.1	148.4	148.8	
Net Cash Flow (10-11+12+13-14)	**443.7**	**444.8**	**445.8**	**446.8**	**447.9**	**448.9**	**450.0**	**451.1**	**452.1**	**453.2**	
Present Value of Cash Flows	**$ 407.89**	**$ 375.85**	**$ 346.33**	**$ 319.12**	**$ 294.05**	**$ 270.96**	**$ 249.67**	**$ 230.06**	**$ 211.99**	**$ 195.33**	**$ 5,161.47**
Sum of Present Value/Conrail Valuation											**$ 8,062.73**

Capital Asset Pricing Model-Cost of Equity Capital-CSX Corporation			
CSX Cost of Equity Capital			**Source**
Risk Free Rate	6.54%	Rf	10 year T-Note Rate as of October 18, 1996 (Exhibit 8)
Market Risk	13.54%	Rm	10 yr T-Note Rate + Historial Rate Premium of 7%
Equity beta	1.35	b	CSX Value Line Equity Beta as of Oct 18, 1996 (Exhibit 8)
CAPM	**15.99%**	R=Rf+b[Rm-Rf]	

Weighted Average Cost of Capital-CSX Corporation			
CSX Cost of Capital			**Source**
Cost of Equity	15.99%	Re	CAPM Calculation above
Cost of Debt	8.08%	Rd	Yield on Baa Rated Long Term Corporate Bond Oct 18, 1996 (Exhibit 8)
Marg Tax Rate	35.06%		CSX Financial Statement dated Oct 31, 1996 (Exhibit 4)
CSX Equity	$ 4,815	E	CSX Financial Statement dated Oct 31, 1996 (Exhibit 4)
CSX Debt	$ 9,826	D	CSX Financial Statement dated Oct 31, 1996 (Exhibit 4)
CSX Value	$ 14,641		CSX Debt + CSX Equity
WACC	**8.780%**	WACC=Rd(1-Tc)D/V+ReE/V	