

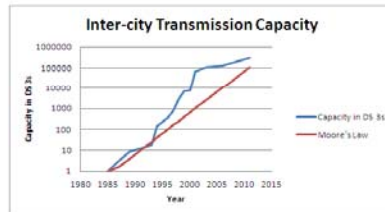
TFI Valuation Conference
January 24, 2013

Implications on Valuation (of Technological Change)

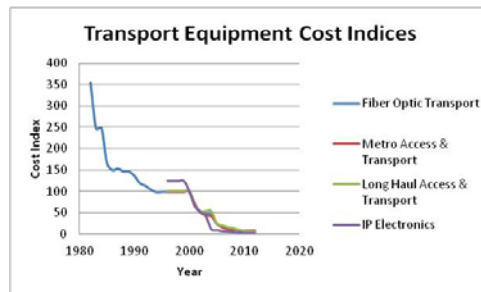
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Transport Technology

Period	Designation	Technology	Transmission Rate (Mbps)	Capacity		WDM Channels	Capacity Electronics plus WDM (DS 3s)	Growth	
				DS 3 (voice channels)	WDM				
1985 to 1986	DS-3	Electrical	51.84	1	672	1	1		
1986 to 1988	3 DS-3	Electrical	155.52	3	2,016	1	3	200%	
1988 to 1990	9 DS-3	Electrical	466.56	9	6,048	1	9	200%	
1990 to 1992	12 DS-3	Electrical	622.08	12	8,064	1	12	33%	
1992 to 1994	18 DS-3	Electrical	933.12	18	12,096	WDM	18	50%	
1994 to 1995	OC-24	SONET	1,244.16	24	16,128	WDM 2 to 4	72	300%	
1995 to 1996	OC-36	SONET	1,866.24	36	24,192	WDM 8 to 12	360	400%	
1996 to 1997	OC-48	SONET	2,488.32	48	32,256	WDM	768	112%	
1997 to 1998	OC-96	SONET	4,976.64	96	64,512	oWDM	3,072	300%	
1998 to 1999	OC-192	SONET	9,953.28	192	129,024	oWDM 32 to 40	6,912	125%	
1999 to 2000	OC-192	SONET	9,953.28	192	129,024	oWDM	40	7,680	11%
2000 to 2002	OC-768	SONET	40,000.00	768	516,096	uWDM 80 to 120	76,800	900%	
2002 to 2004	OC-768	SONET	40,000.00	768	516,096	uWDM 120 to 160	107,520	40%	
2004 to 2008	OC-768	SONET	40,000.00	768	516,096	uWDM	120,880	14%	
2009 to 2012	OC-1920	Optical/Ethernet	100,000.00	1920	1,290,240	uWDM	307,200	150%	



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Impacts on Value of Transmission Technology

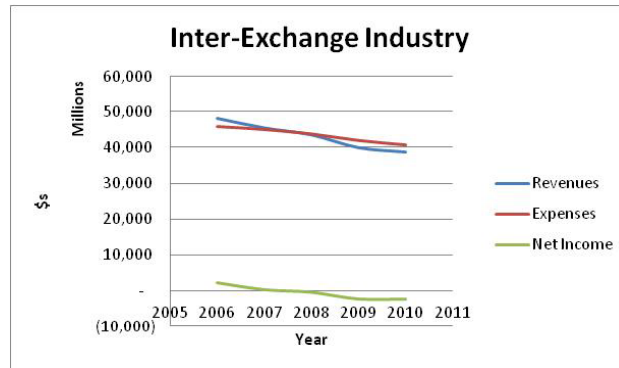
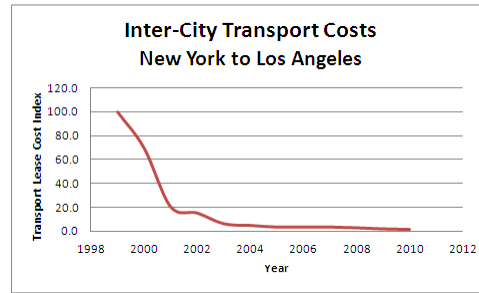
- Cost of Replacement (COR)
 - Increases in Opto-Electronics Capacity reduces the need for fiber infrastructure.
 - Reduces the Replacement Cost of Equipment when compared to Historical Equipment Cost.
- COR less Depreciation
 - Rapidly changing opto-electronics systems and their capacity reduce the life of current and historical systems.
- Economic Obsolescence
 - Requires less individual opto-electronic systems which reduces operating cost.

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Inter-city Transport Lease

Facilities: 155 Mbps STM1-OC3
New York to Los Angeles

Year	Monthly Lease	Cost Index
1999	189,444	100.0
2000	131,999	69.7
2001	38,883	20.5
2002	29,046	15.3
2003	12,000	6.3
2004	9,200	4.9
2005	6,600	3.5
2006	6,600	3.5
2007	6,600	3.5
2008	5,500	2.9
2009	3,817	2.0
2010	2,800	1.5



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Economic Obsolescence

- Declining Revenues
 - Increases in Opto-Electronics Capacity produced vast capacity which reduced the prices carriers charged customer resulting in declining revenues.
- Operating Cost remain firm
 - Inter-city networks being vast are cost intensive and those cost are relatively fixed
- Declining Income
 - As a result net incomes are declining and many are in fact negative