

Aviation and Aerospace Industry Compendium

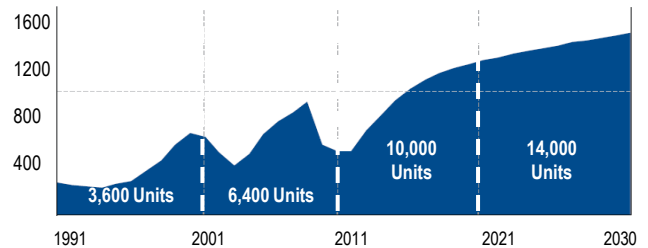
Commercial

Supported by strong sales in emerging markets and a growing need to replace aging and fuel inefficient aircraft, the commercial aviation market is expected to show sizeable growth in 2012. Net profit margins for the industry remain low but positive at 1.2%. Over the past several months both Boeing and Airbus have announced production increases to the 737NG and A320 lines of aircraft, respectively. After three years of delays due to wing stress tests, on-board fires, and supply chain issues, Boeing delivered its first 787 Dreamliner, to All Nippon Airways. Boeing plans to manufacture 120 aircraft per month to work off a backlog of 800 planes as of November 2011. Airbus is responding with the current development of the A350-XWB, a long range mid-sized aircraft, with plans to enter the market by the end of 2013; Airbus currently has 567 orders for the A350. While Boeing and Airbus have traditionally dominated the narrow body segment, the Canadian manufacturer Bombardier, known for its business jets, is entering the market with its C-Series, a family of 100 to 145 seat aircraft that promises higher fuel efficiencies from using lighter materials.

Small Business Jets

Bombardier, in its latest market forecast, expects 2012 to mark a significant uptick in business jet deliveries. At \$260 billion, expected revenue for the 2011-2020 period will be nearly double that of 2001-2010. The 2011 recovery period saw a bifurcated market with much stronger sales of larger, more expensive jets supported by growth in emerging markets. Going forward, we expect a similar trend; however, as the economy continues to improve, the demand for smaller classes should increase as well.

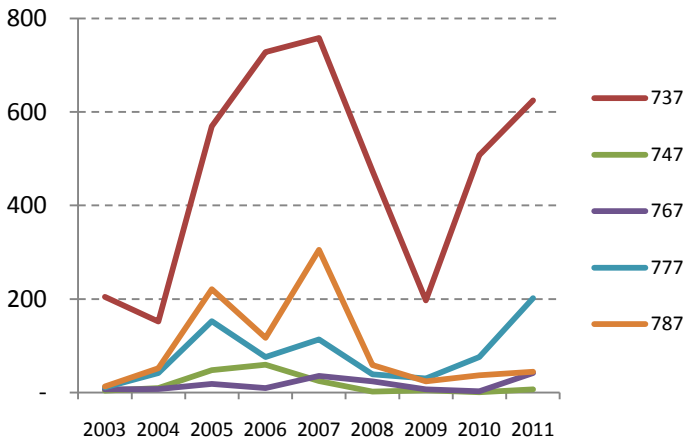
Business Jet 20 year Delivery Forecast



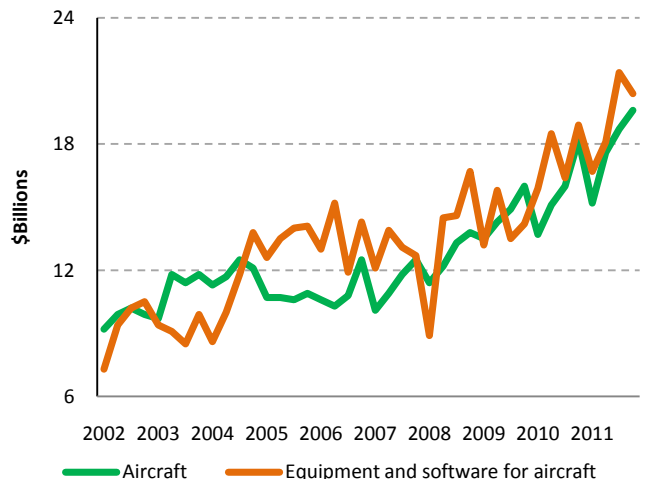
Defense

With the conclusion of Operation Iraqi Freedom and the withdrawal of U.S. troops from Afghanistan, the defense budget is expected to undergo a substantial reduction in the coming decade. Such cuts will have a drastic impact on the aerospace and aviation industry. In August 2011, Congress passed the Budget Control Act (BCA), which will cut \$2.1 trillion from the national debt, including \$500 billion from the Pentagon over the next ten years. Following historical defense budget peaks in 1968 and 1985, S&P predicts the defense budget could fall by as much as 50% over the next 15 to 20 years. According to the Consolidated Appropriations Bill of December 15, 2011, the Department of Defense (DoD) will have a base budget of \$518 billion, up 1% from 2011 (4% lower than requested), compared to average annual growth of 9% for the past ten-year time period. Several members of Congress, including John McCain and U.S. House Armed Services Committee Chairman Buck McKeon, are seeking to roll back the degree and timing of sequestration. Non-priority programs, such as the Surface-Launched Advanced Medium-Range Air-to-Air Missile (SLAMRAAM) program and the Non Line of Sight Launch System (NLOS-LS) program, have already been terminated in light of rapidly rising costs and development delays. In addition, the DoD has restructured the F-35 Joint Strike Fighter (JSF), while at the same time increasing production of the F/A-18 fighter to fill the gap created by delaying F-35 production. The DoD is seeking to negotiate better pricing for additional F-35 units despite a decision to remove 179 jets from the Pentagon's five-year spending plan. Large-scale procurement of the JSF has slipped into the 2020s.

Boeing Annual Jet Orders by Plane



Historical National Defense Expenditures on Aerospace



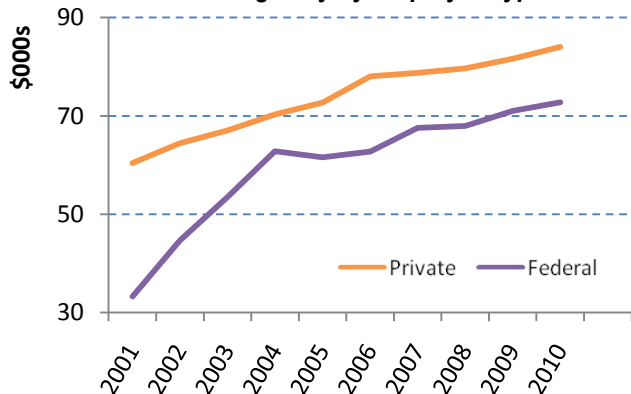
Sources: Market Outlook for Boeing, Airbus, Embraer and Bombardier; S&P Aerospace and Defense Industry Report 2011; Defensenews.com

Highlight on US Aerospace Employment

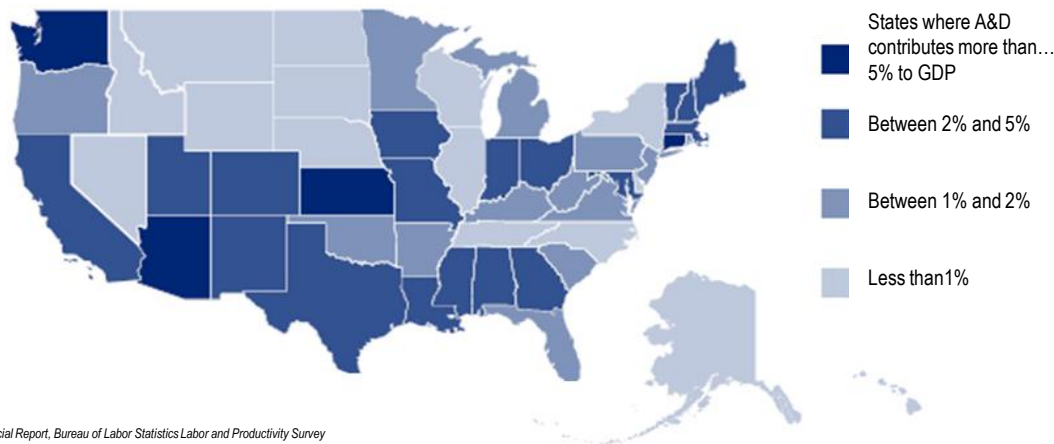
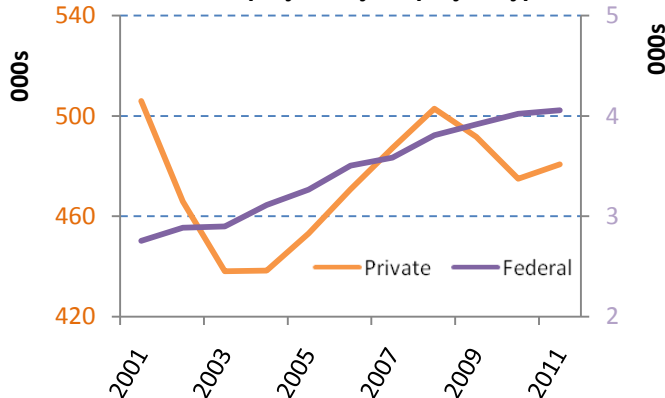
Deloitte recently released a study commissioned by the Aerospace Industries Association (AIA) to study the economic impact of the aerospace and defense industry on a state-by-state basis. The U.S. Census Bureau currently estimates that there are approximately half a million total workers between federal and private aerospace product and parts manufacturing companies. Deloitte estimates an additional half million are involved in directly related aerospace services and defense related sectors. Private industry pays more than the government, and while that gap is lower than at the beginning of the millennium, it has remained relatively constant for the past five years. California, Washington, Texas, Florida, and Arizona have the highest aerospace employment in absolute terms. Aerospace and defense is the largest contributor to state GDP in Kansas, Washington, Arizona, Connecticut, and Alabama. The AIA estimates approximately one million jobs will be lost in 2013 from the direct and indirect impact of the DoD budget cuts. Contractor Lockheed Martin announced 6,500 layoffs in Q2 2011, and Northrop Grumman cut over 1,000 jobs in Maryland alone in 2011. General Dynamics, Boeing, and Rockwell Collins have made similar moves in response to the sequestration.

Aerospace Product and Parts Manufacturing

Average Pay by Employer Type



Total Employees by Employer Type



Sources: US Census Quarterly Financial Report, Bureau of Labor Statistics Labor and Productivity Survey

Transaction Activity Outlook

There were 341 M&A transactions in the aerospace and defense industry in CY 2011, equating to a record annual high of \$44 billion in deal value (surpassing 2007's prior record of \$42 billion). However, total deal value was driven up by the \$16 billion United Technologies announced acquisition of Goodrich Corporation, the largest deal in the sector's history. Large aerospace companies possess significant cash (see next page) and appear well positioned to drive more deals in 2012. The expected increase in the capital gains tax rate from 15% to 20% in 2013 (with an additional 3.8% surtax for households with income greater than \$250k) will serve as further impetus for M&A activity in the next three quarters, as smaller and often closely-held suppliers are sold to provide their owners with lower total cost liquidity.

Sources: Pricewaterhouse Coopers Aerospace and Defense Industry Report, Q4 2011

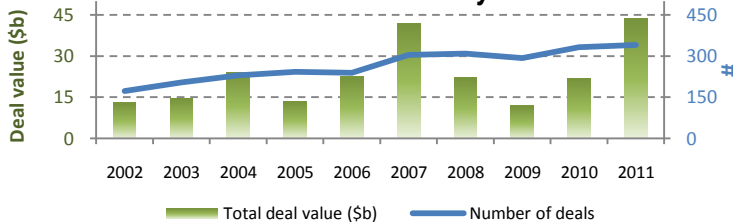


Sept 2011 (Announced)



Enterprise Value: \$17.7 B
EV/Rev: 2.2 x
EV/EBITDA: 10.5 x

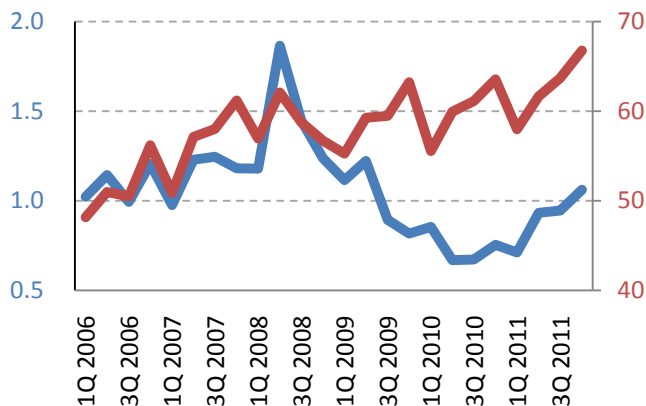
A&D M&A Activity



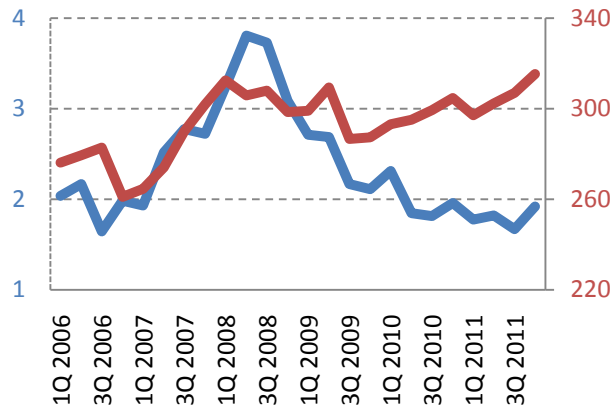
Industry Financial Health

- Net sales for firms with less than \$25 million in assets continue to improve since the low point in Q2 2010. Sales for these small firms are finally approaching the levels of 2006-2007. From the Net Sales chart, it is evident that smaller firms faced a much more difficult time recovering post recession than larger firms. While firms with greater than \$25 million in assets have experienced some wild swings, the overall trend for the past five years has been positive. Q4 2011 proved to be a robust quarter for both smaller and larger companies.
- The change in total assets in the aerospace industry was highly asymmetrical as smaller companies faced significantly larger decreases as a result of the recession. Firms with greater than \$25 million in assets have experienced a slow but steady increase in total assets since Q3 2009 while smaller firms have continued to struggle. Not surprisingly, the trend for total assets resembles that of net sales, with smaller companies experiencing the biggest uptick in net assets in four quarters.
- Both small and large companies have experienced growth in operating income since the end of 2010. During four non-consecutive quarters since Q4 2008, operating income for companies with assets less than \$25 million hovered around \$0, falling as low as negative \$16 million in Q4 2008. Operating income for smaller companies has now returned to pre-recession levels despite the slow growth in net sales as companies increased production efficiencies. Operating income all companies decreased significantly in Q4 2011 despite an uptick in sales, evidence of a cost ramp-up in anticipation of better sales going forward.
- For firms with less than \$25 million in assets, cash on hand declined significantly after the recession, along with net sales and total assets, until experiencing a brief uptick in Q1 2011. The larger industry segment, however, saw an accumulation of cash on hand through 2009. This trend is in line with statements made in the annual reports of the three big jet engine manufacturers. During the post recovery period through 2010, companies with total assets greater than \$25 million appeared to be spending some of their reserves of cash on hand. However, with the growing uncertainty of oil prices, inflation, and overall economic growth, the trend has reversed and the large companies are beginning to hoard cash once again.

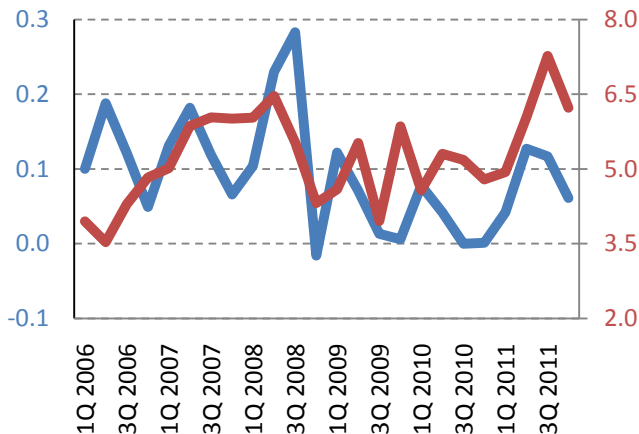
Net Sales



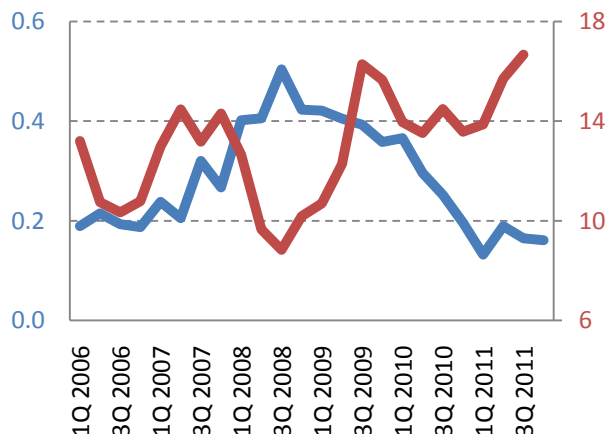
Total Assets



Operating Income



Total Cash on Hand

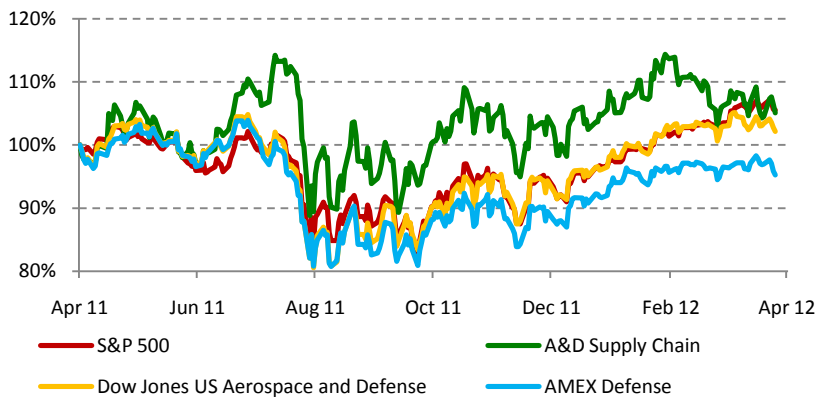


Amounts in billions of U.S. dollars.

Source: US Census Quarterly Financial Reports
Data are tabulated by industry using NAICS code 3364 as of each quarter

— Total Assets < \$25 Million — Total Assets > \$25 Million

Public Market Trading Performance



Source: Capital IQ, as of close on April 9, 2012

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Public Company Valuation and Performance – Select A&D Supply Chain Index

Company Name	Stock Price	% of 52-week		Market Enterprise			EV / Revenue				EV / EBITDA				P/E Ratio		
	4/9/2012	High	Low	Cap	Value	Cash	LTM	LQA	CY2012 E	CY2013 E	LTM	LQA	CY2012 E	CY2013 E	LTM	CY2012 E	CY2013 E
Hexcel Corp.	\$24.03	89.1 %	133.5 %	\$2,475	\$2,677	\$50	1.9 x	1.9 x	1.7 x	1.6 x	11.1 x	10.6 x	9.3 x	8.3 x	17.8 x	17.3 x	15.2 x
Ducommun Inc.	11.50	45.0	106.1	124	475	41	0.8	0.6	0.6	0.6	7.9	6.3	5.3	5.0	NM	6.9	5.4
Magellan Aerospace Corp.	3.28	58.1	129.2	184	392	27	0.6	0.6	0.5	0.5	4.8	5.1	3.9	3.5	4.5	5.2	4.4
Heroux-Devtek Inc.	8.80	94.9	140.5	264	331	50	0.9	0.9	0.8	0.8	5.3	4.9	4.9	4.6	10.8	10.1	8.8
LMI Aerospace Inc.	17.34	69.4	113.1	207	199	8	0.8	0.8	0.7	0.6	6.2	7.9	4.7	4.2	12.4	9.5	7.7
Hampson Industries plc	0.06	12.4	149.1	18	159	17	0.5	0.7	NA	NA	NM	NM	NA	NA	NM	NA	NA
CPI Aerostructures Inc.	15.94	97.1	181.5	114	131	1	1.8	1.4	1.4	1.1	11.4	7.7	7.4	6.2	15.3	10.2	8.5
SIFCO Industries Inc.	18.50	82.0	120.1	99	119	7	1.0	1.0	NA	NA	7.2	8.9	NA	NA	13.3	NA	NA
Edac Technologies Corp.	12.53	89.6	371.8	64	79	2	0.9	0.9	NA	NA	8.5	7.1	NA	NA	18.4	NA	NA
Sypris Solutions Inc.	4.09	80.9	148.7	79	71	18	0.2	0.2	0.2	0.2	4.0	4.5	3.0	2.7	9.5	11.4	8.9
Northstar Aerospace Inc.	0.20	8.2	117.6	6	67	0	0.3	0.4	0.4	0.3	2.6	4.4	3.5	3.0	0.9	1.8	0.9
Mean	66.1 %	155.6 %					0.9 x	0.8 x	0.8 x	0.7 x	6.9 x	6.7 x	5.2 x	4.7 x	11.4 x	9.1 x	7.5 x
Median	80.9	133.5					0.8	0.8	0.6	0.6	6.7	6.7	4.8	4.4	12.4	9.8	8.1

Source: Public company filings and Capital IQ. Amounts in millions of U.S. dollars, except per share data

Selected M&A Activity in the Aerospace and Defense Supply Chain

Date	Target	Acquirer	Enterprise			EV / Revenue	EV / EBITDA	Description
			Value	Revenue	EBITDA			
Apr 12	Deutsch Engineered Connecting Devices	TE Connectivity Ltd.	\$2,066.8	-	-	-	-	Aerospace electronics and circuitry
Mar 12	C-MAC Aerospace Limited	API Technologies (UK) Limited	\$33.2	\$35.7	-	0.9 x	-	Aerospace electronics and circuitry
Mar 12	JSC Ulan-Ude Aviation Plant	Russian Helicopters JSC	\$741.9	-	-	-	-	Military and civilian helicopters
Feb 12	LAI International, Inc.	Monroe Capital LLC; RLJ Equity Partners, LP.	-	-	-	-	-	Precision engineered finished parts
Feb 12	Summit Tool Corp	Summit Aerospace USA Inc.	-	-	-	-	-	Aircraft engine components
Feb 12	Weber Technologies, Inc.	Enginetics Aerospace Corporation	-	-	-	-	-	Aerospace components
Feb 12	Latrobe Specialty Metals, Inc.	Carpenter Technology Corp.	\$584.5	\$379.1	\$63.2	1.5 x	9.2 x	Specialty metals and alloys
Feb 12	AmSafe, Inc.	TransDigm Inc.	\$750.0	\$260.0	\$60.5	2.9 x	12.4 x	Aerospace safety and securement equipment
Jan 12	Valpey Fisher Corp.	CTS Corporation	\$15.9	\$15.0	\$1.3	1.1 x	11.8 x	Aerospace electronics and radar equipment
Dec 11	KOR Electronics, Inc.	Mercury Computer Systems, Inc.	\$70.0	-	-	-	-	Aerospace electronics and radar equipment
Dec 11	China Changfeng Science & Tech Group	Beijing Aerospace Changfeng Co. Ltd.	\$70.2	-	-	-	-	Aerospace components
Dec 11	Harco Laboratories, Inc.	TransDigm Group Incorporated	\$84.0	-	-	-	-	Aerospace air data systems and sensors
Nov 11	Weston EU Limited	Senior plc	\$83.9	\$66.0	-	1.3 x	-	Precision components and sub-assemblies
Oct 11	Trivec-Avant Corporation	Cobham plc	\$144.0	-	\$22.6	-	6.4 x	Antenna systems
Oct 11	GEL Industries, Inc.	SIFCO Industries Inc.	\$20.8	\$16.3	\$3.0	1.3 x	6.9 x	Precision aluminum forging
Oct 11	AeroTurbine, Inc.	International Lease Finance Corp.	\$527.2	-	-	-	-	Airframe and engine components
Sep 11	Satair A/S	Airbus S.A.S.	\$517.9	\$403.0	\$35.1	1.3 x	14.8 x	Aircraft parts for maintenance
Sep 11 A	Goodrich Corp. (1)	United Technologies Corp.	\$17,653.2	\$8,074.9	\$1,674.4	2.2 x	10.5 x	Aerospace components
Sep 11	Kemrock Industries & Exports Ltd.	RPM International Inc.	\$358.2	\$226.3	\$48.5	1.6 x	7.4 x	Fiberglass structural components
Aug 11	Dearborn Precision Tubular Products, Inc.	Hunting plc	\$83.5	\$44.5	\$9.1	1.9 x	9.2 x	Precision metal components
Mean for deals						1.6 x	9.8 x	
Median for deals						1.4 x	9.2 x	

Source: Public company filings and Capital IQ. Amounts in millions of U.S. dollars

(1) Enterprise value calculated on equity value of \$16.0 billion, plus net debt of \$1.4 billion, plus \$200 million in other considerations

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