Aerospace and Defense

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Aerospace/Defense

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This report contains our industry delivery projections plus data on market share and the used market. The industry is an important driver for many companies we cover, including Bombardier, Embraer, General Dynamics, Honeywell, Rockwell Collins, Spirit AeroSystems, and Textron.

- **2011 holds promise as a turnaround year.** We sense the market is looking for a turnaround in bizjet OE demand this year, and we see a reasonable chance for this to occur, with a pickup in demand underpinning our forecast for an 18% increase in deliveries in 2012. A recovery is not a foregone conclusion, however, and a stubbornly high number of used business jets available at attractive prices remains a key obstacle. There was little progress in whittling down that number last month, with the proportion of the fleet of in-production aircraft available for sale remaining flat at 11.3%. This represents a 300 bps decline since the July 2009 peak, but it is still consistent with the last cyclical peak in 2001.
- **Q4 data points mixed but slant slightly positive.** While Gulfstream's estimated net book-to-bill improved to 1.3x, Q4 is seasonally strong, making it too early for a definitive judgment on demand. Cessna deliveries came in strong, most excess inventory appears to be gone, and the tone was incrementally positive, but backlog still declined nearly $500 mln q/q. COL mentioned talks with OEMs about rate increases, a point the market received warmly. We believe management was referring to Bombardier at a minimum, which has already disclosed plans to increase Global Series line rates, though the language implied there are others as well.
- **Used inventory unchanged.** Inventories for sale as a % of the active fleet for in production models remained flat at 11.3% in Jan. All three categories. Heavy, Medium, and Light, were more or less flat. 13 of 24 tracked models saw decreases in inventories, and 10 saw increases, while inventories were flat for 2. By OEM, inventory declines for Embraer (-70 bps), Bombardier. (-40 bps), Gulfstream (-10 bps) and Cessna (-10 bps) were offset by gains for Dassault (+90 bps) and Hawker Beechcraft (+20 bps).
- **Divergent movement in avg asking prices.** Prices increased 2.1% to $11.0 mln in Jan after touching the lowest level since Aug-97 in December, Heavy jets drove the increase, with Light and Medium still showing declines. Prices were up 4.3% for Heavy jets, while Medium and Light jets each saw declines nearly 2%. 10 of 24 tracked models saw increases in prices, 11 saw decreases, and 3 had flat prices. A bottoming of used prices will be a key sign of a turn, so this bears watching perhaps even more than inventories at this point.
- **Bizjet flight ops continue growing.** Flight ops registered an increase of 9% for the second straight month in Dec. On a seasonally adjusted basis, flight ops increased 4% sequentially, consistent with Nov growth. Flight ops increased 13% in 2010 from the depressed levels of 2009, but are still 17% below the peak levels of 2007, showing room for further expansion.

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Business Jet Delivery Forecast

Table 1: Aircraft Deliveries, 1995-2012E

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010E	2011E	2012E
Bombardier																		
Challenger 601-3R,604	24	32	34	36	42	38	41	31	24	29	36	29	35	44	36	34	31	34
Challenger 300	–	–	–	–	–	–	–	–	1	28	51	55	51	60	33	28	30	34
Challenger 800	–	–	–	–	–	–	–	–	–	–	4	18	12	17	7	10	6	8
Global Express	–	–	–	3	32	35	30	17	14	20	14	22	25	27	25	24	25	28
Global 5000	–	–	–	–	–	–	–	–	–	4	17	18	23	25	26	23	25	28
Learjet 40	–	–	–	–	–	–	–	–	–	17	21	26	23	21	14	8	5	8
Learjet 45 / 45X	–	–	–	7	43	71	63	27	17	22	30	30	34	27	19	13	7	9
Learjet 60	23	24	32	32	35	29	17	12	9	18	15	23	23	26	13	12	7	9
Learjet 85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Discontinued Models	19	13	21	22	24	28	17	9	2	–	–	–	–	–	–	–	–	–
Total	67	68	79	100	173	207	180	101	70	129	188	213	226	247	173	152	136	158
Cessna (Textron)																		
Citation Mustang	–	–	–	–	–	–	–	–	–	–	–	1	45	101	125	73	45	75
Citation Jet/CJ1	42	44	63	64	59	56	61	30	22	20	18	25	34	20	14	3	6	11
Citation Jet/CJ2	–	–	–	–	–	8	41	86	56	27	23	37	44	56	21	17	28	37
Citation Jet/CJ3	–	–	–	–	–	–	–	–	–	6	48	72	78	88	40	20	22	28
Citation Jet/CJ4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	19	25	31
Citation Encore	–	–	–	–	–	6	37	36	21	24	17	14	23	28	5	5	12	16
Citation Excel	–	–	–	15	39	79	85	81	48	55	62	73	82	80	44	22	20	25
Citation Sovereign	–	–	–	–	–	–	–	–	–	9	46	57	65	77	33	16	20	25
Citation X	–	7	28	30	36	37	34	31	18	15	14	12	17	16	7	3	7	7
Discontinued Models	73	78	90	91	82	66	48	41	31	25	21	18	–	–	–	–	–	–
Total	115	127	181	200	216	252	306	305	196	181	249	309	388	466	289	178	185	255
Dassault																		
Falcon 50/EX	8	1	10	13	11	18	13	10	8	5	5	5	2	1	–	–	–	–
Falcon 900/B/C	10	8	7	5	8	6	6	4	3	3	1	–	–	–	–	–	–	–
Falcon 900DX	–	–	–	–	–	–	–	–	–	–	2	4	10	4	1	1	–	–
Falcon 900EX	–	3	16	15	16	23	21	17	10	15	16	16	18	19	17	21	18	20
Falcon 2000	10	21	18	14	34	26	35	35	12	11	6	6	1	3	1	–	–	–
Falcon 2000EX	–	–	–	–	–	–	–	–	16	29	21	30	33	18	3	–	–	–
Falcon 2000LX	–	–	–	–	–	–	–	–	–	–	–	–	–	6	23	28	20	23
Falcon 7X	–	–	–	–	–	–	–	–	–	–	–	–	6	21	32	40	32	32
Total	28	33	51	47	69	73	75	66	49	63	51	61	70	72	77	90	70	75
Embraer																		
Phenom 100	–	–	–	–	–	–	–	–	–	–	–	–	–	2	93	101	125	155
Phenom 300	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	19	35	40
Legacy 500	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
Legacy 600	–	–	–	–	–	–	–	8	13	13	14	27	35	33	18	12	12	20
Lineage 1000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	4	4	4
Discontinued Models	–	–	–	–	–	2	5	–	–	–	–	–	–	–	–	–	–	–
Total	–	–	–	–	–	2	5	8	13	13	14	27	35	35	115	136	176	222
Gulfstream																		
G100 / G150	6	11	6	14	9	11	5	9	5	9	12	20	32	39	11	13	12	20
G200 / 250	–	–	–	–	1	6	25	15	19	13	14	22	27	30	8	9	9	15
G300 / 350	–	–	–	–	–	–	–	–	8	5	12	12	13	12	–	–	–	–
G400 / 450 / G IV / IVSP	26	24	22	32	39	37	36	29	13	19	14	16	20	20	30	33	32	20
G500	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
G550 / G V / VSP	–	3	29	29	31	34	35	32	28	32	37	43	46	55	45	44	44	44
G650	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	12	22
Total	32	38	57	75	80	88	101	85	74	78	89	113	138	156	94	99	109	121
Hawker Beechcraft																		
Premier I	–	–	–	–	–	–	18	29	29	37	30	23	54	31	16	9	8	6
Hawker 400XP	30	29	43	43	45	51	25	19	24	28	53	53	41	35	11	6	–	–
Hawker 800/XP	26	26	33	48	55	67	55	46	47	50	58	64	67	88	51	31	31	34
Hawker 4000	–	–	–	–	–	–	–	–	–	–	–	–	–	6	20	14	16	20
Discontinued Models	8	3	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	64	58	78	91	100	118	98	94	100	115	141	140	162	160	98	60	55	60
Other Very Light Jets																		
Diamond D-Jet	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	10
HondaJet	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	8

JPM Delivery Forecast, 2012E-2014E

	12E	13E	14E
Total	661	769	872
w/ VLJs	909	1,074	1,202

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Total	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	18
Grand Total w/o VLJs	306	324	446	513	638	740	765	659	502	579	732	862	974	1,033	628	541	561	661
% change	*14%*	*6%*	*37%*	*15%*	*24%*	*16%*	*3%*	*-14%*	*-24%*	*15%*	*26%*	18%	13%	6%	-39%	-14%	4%	18%
Grand Total w/ VLJs	306	324	446	513	638	740	765	659	502	579	732	863	1,019	1,136	846	715	731	909
% change	*14%*	*6%*	*37%*	*15%*	*24%*	*16%*	*3%*	*-14%*	*-24%*	*15%*	*26%*	18%	18%	11%	-26%	-15%	2%	24%

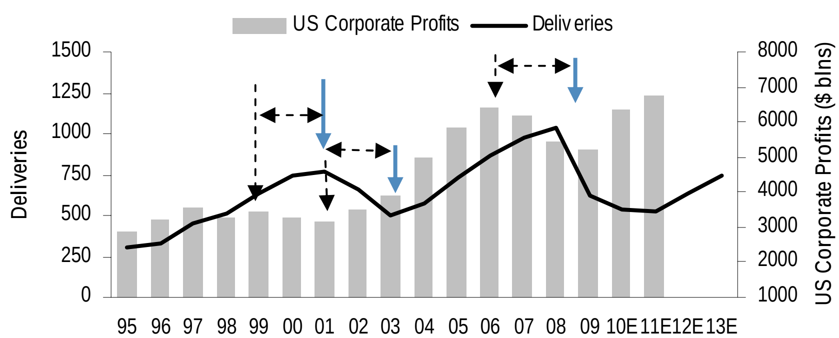
VLJs include: Cessna Mustang, Diamond D-Jet, Embraer Phenom 100, and HondaJet.
Source: GAMA, Company reports and J.P. Morgan estimates.

Macro Drivers & Market Cycle

Demand for business jets is largely a function of corporate profits. During the last cycle, deliveries peaked in 2001 after US corporate profits reached a high in 1999, while deliveries bottomed out in 2003 after profits fell to cyclical lows in 2001. The downturn itself lasted for 2 years before positive growth returned in 2004 (see Figure 1). At the same time, global profits peaked in 2000 as the downturn in US profits did not fully affect global profits for a year. Global profits resumed minimal growth again in 2002, with more substantial growth following in 2003 as deliveries hit their low point (Figure 2).

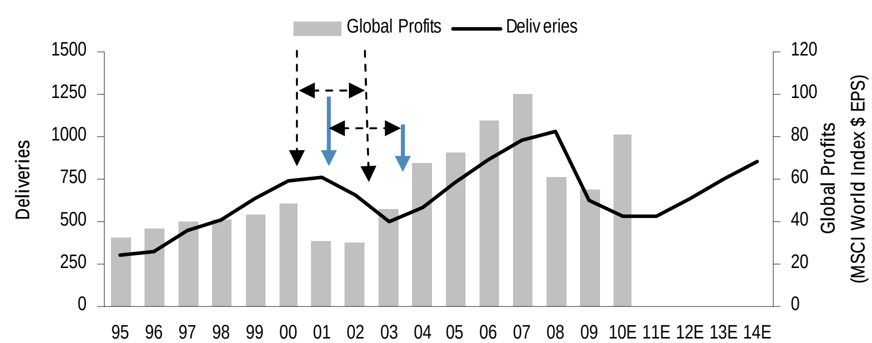
Business jet deliveries lag US corporate profits by 2 years on peak-and-trough basis.

Figure 1: US Corporate Profits vs. Business Jet Deliveries (# of aircraft), 1995-2013E



Source: GAMA, BEA, J.P. Morgan estimates. Excludes Very Light Jets as delineated in Table 1.

Figure 2: Global Corporate Profits vs. Business Jet Deliveries (# of aircraft), 1995-2014E



Source: GAMA, BEA, MSCI, J.P. Morgan estimates. Excludes Very Light Jets as delineated in Table 1.

US corporate profits peaked in 2006 and business jet deliveries (excluding VLJs) peaked two years later once again, in 2008. Business jet deliveries declined 39% in 2009, steeper than last cycle's 14% initial drop-off, with OEMs cutting production rates across all categories of jets. We believe 2010 was down another 14%, and we are forecasting modest increase in deliveries this year, followed by a pickup in 2012, though visibility is limited.

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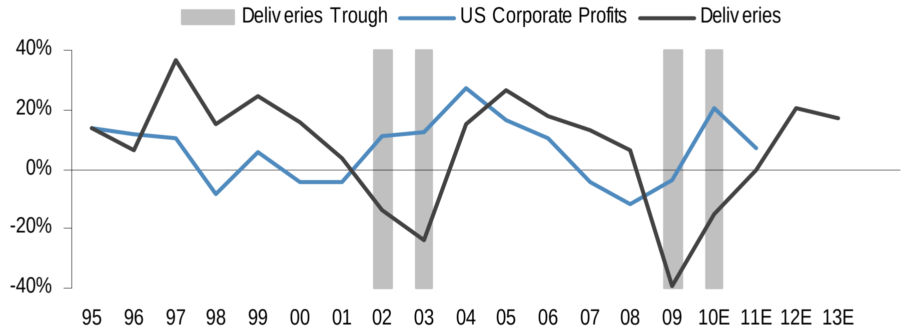
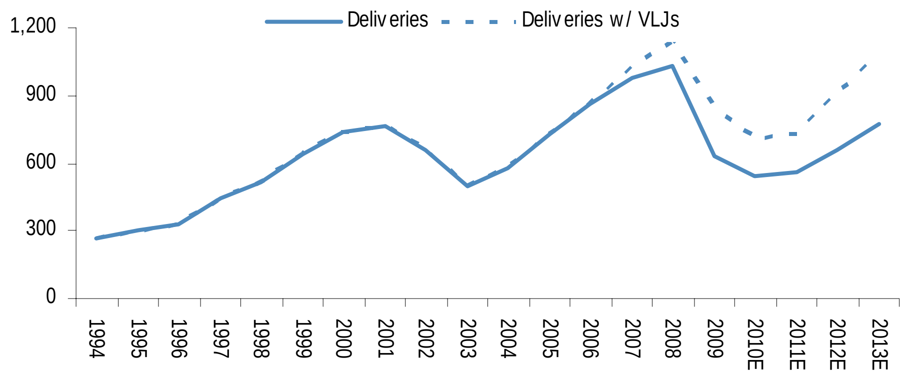
Figure 3: US Corporate Profits vs. Business Jet Deliveries (% chg. y/y), 1995-2013E



Source: GAMA, BEA, J.P. Morgan estimates.

Figure 4: Impact of VLJs on Total Deliveries



Source: GAMA, Company reports and J.P. Morgan estimates. Very Light Jets, as delineated in Table 1, include Cessna Mustang, Diamond D-Jet, Embraer Phenom 100, and HondaJet.

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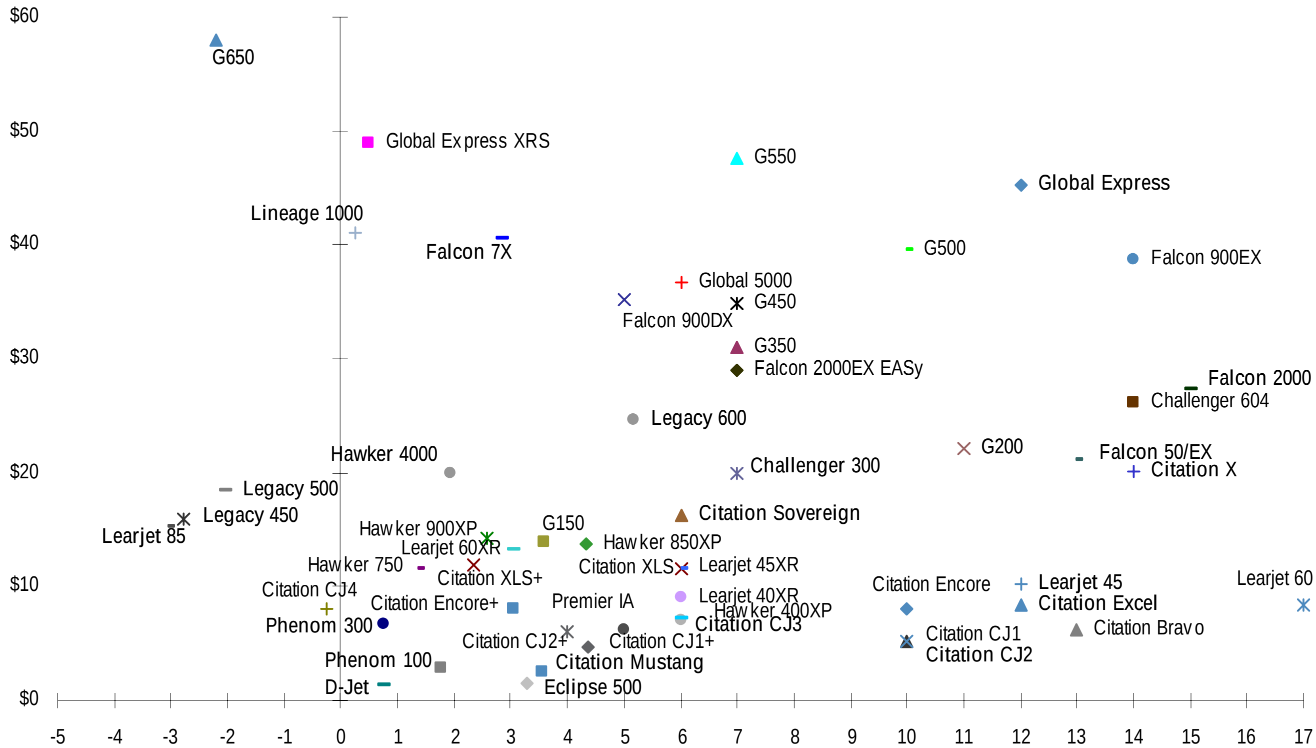
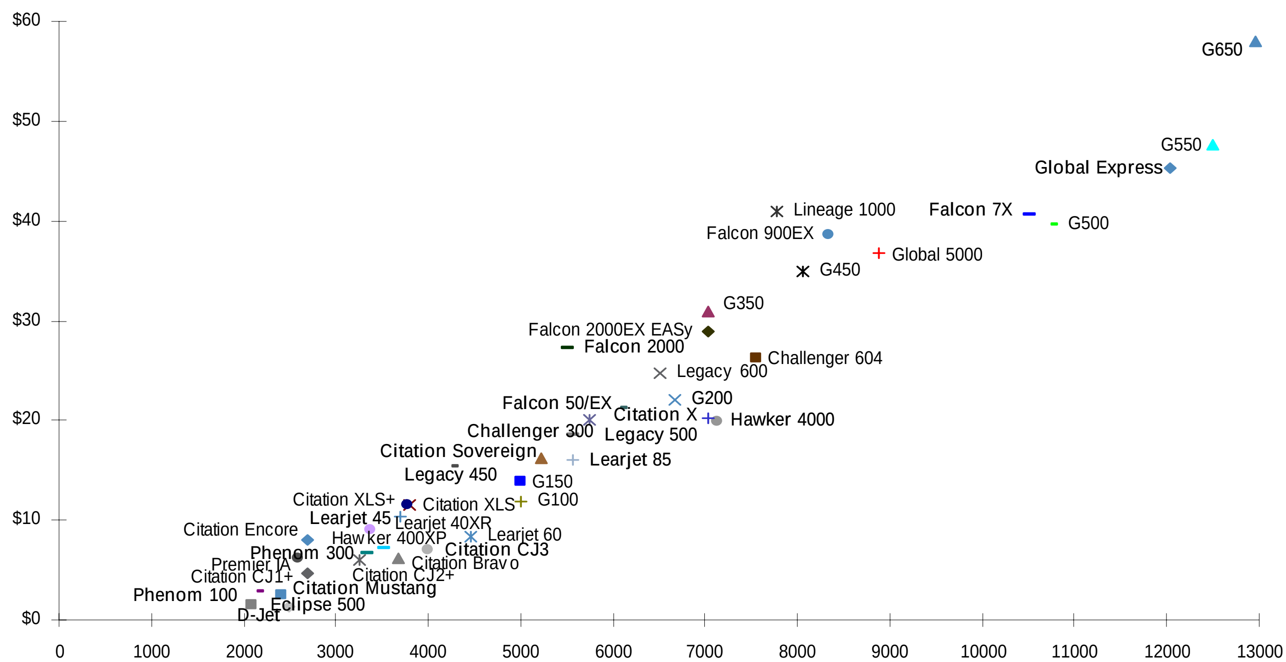
Figure 5: Price ($MM) vs Age (years)



Source: JetNet, J.P. Morgan estimates. Note: **Bold** indicates clean sheet design, non-bold indicates derivative models.

Figure 6: Price ($MM) vs Range (km)



Source: JetNet, J.P. Morgan estimates. Note: **Bold** indicates clean sheet design, non-bold indicates derivative models.

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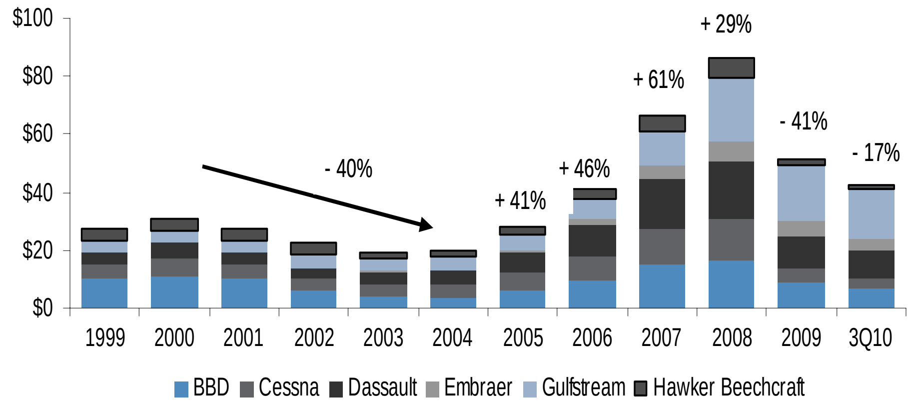
Industry Financial Data

In this section we provide comparative industry data for backlog deliveries, estimated book-to-bill, and profitability.

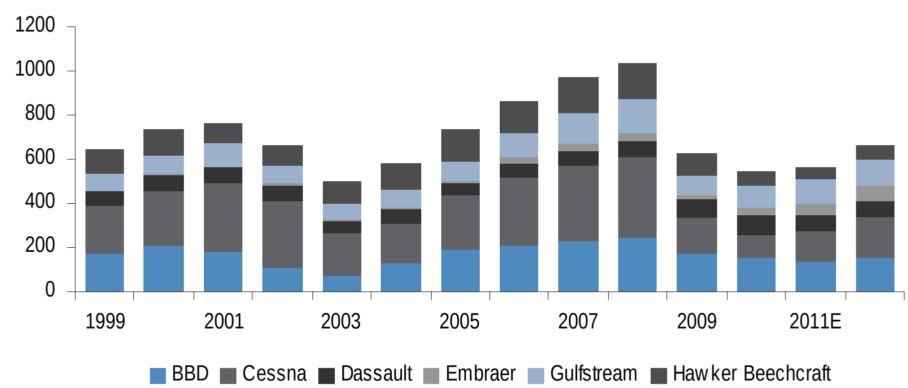
Figure 7: Industry Backlog by Company, 1999-3Q10

$ in billions



Source: Company data, J.P. Morgan estimates.

Figure 8: Industry Deliveries by Company, 1999-2012E



Source: Company data, GAMA. Note: Excludes VLJs.

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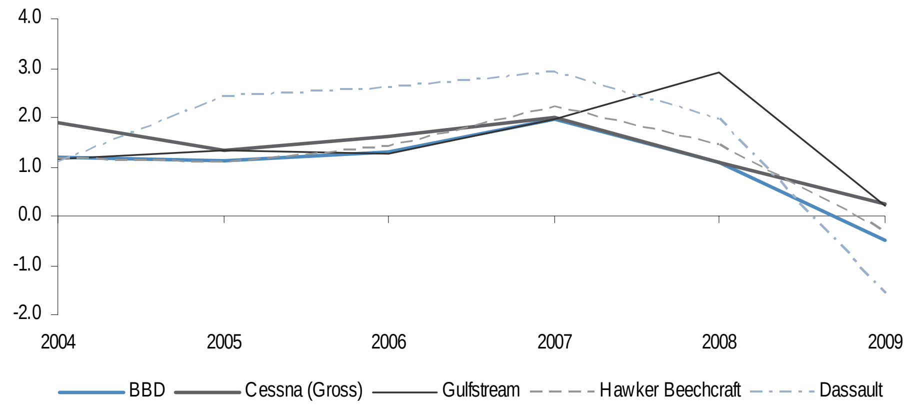
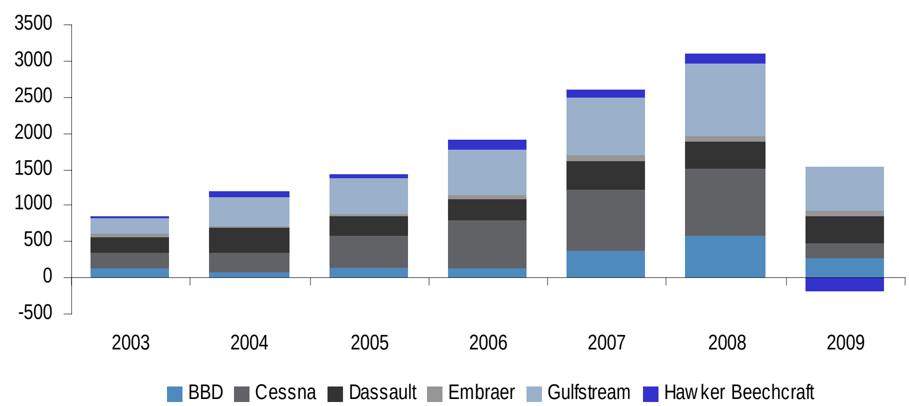
Figure 9: Book to Bill Ratio by Company, 2004 – 2009



Source: Company data, J.P. Morgan estimates. Data as available.

Figure 10: Industry EBIT by Company, 2003-2009

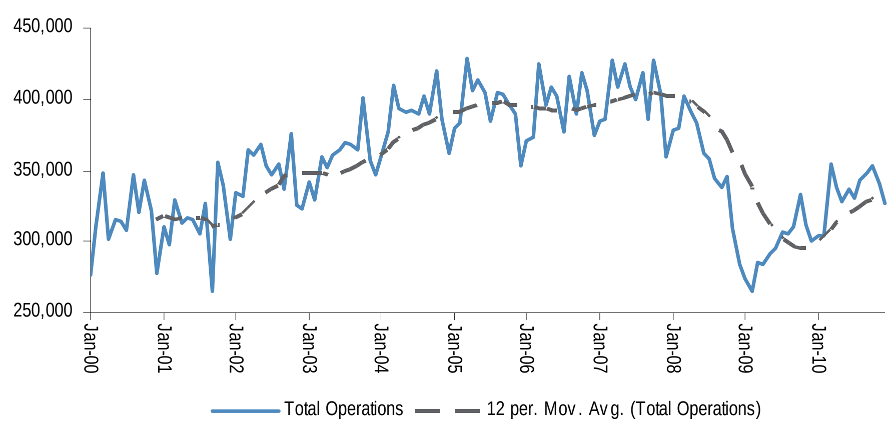
$ in millions



Source: Company data, J.P. Morgan estimates.

Figure 11: Monthly Flight Operations – Business Jets

Takeoffs and landings



Source: FAA, J.P. Morgan estimates.

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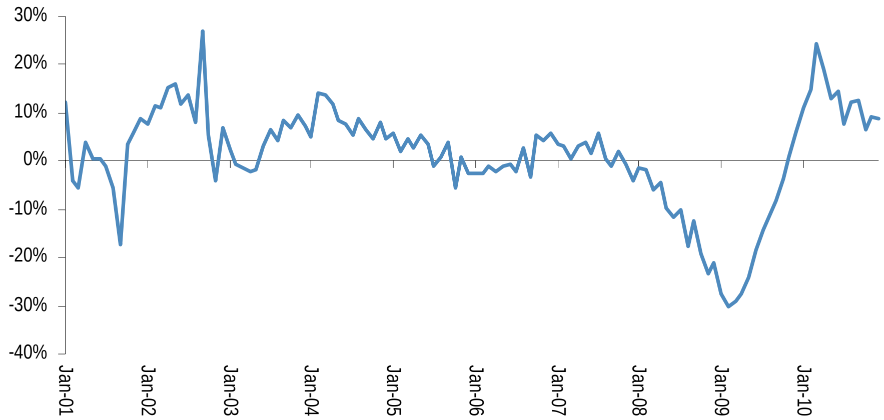
Figure 12: Change in Monthly Flight Operations – Business Jets

% change, y/y



Source: FAA, J.P. Morgan estimates.

Table 2: Historical Fleet Size

	Total	Heavy Jets	Medium Jets	Light Jets
1988	5,331	497	1,414	3,420
1989	5,591	588	1,480	3,523
1990	5,851	649	1,550	3,652
1991	6,095	706	1,599	3,790
1992	6,347	761	1,666	3,920
1993	6,606	815	1,738	4,053
1994	6,856	868	1,809	4,179
1995	7,176	960	1,887	4,329
1996	7,475	1,043	1,962	4,470
1997	7,901	1,151	2,074	4,676
1998	8,397	1,284	2,190	4,923
1999	9,029	1,482	2,335	5,212
2000	9,780	1,722	2,496	5,562
2001	10,572	1,956	2,663	5,953
2002	11,289	2,154	2,799	6,336
2003	11,840	2,337	2,913	6,590
2004	12,440	2,511	3,055	6,874
2005	13,143	2,714	3,259	7,170
2006	13,997	2,957	3,488	7,552
2007	15,072	3,212	3,803	8,057
2008	16,342	3,476	4,260	8,606
2009	17,199	3,773	4,426	9,000

Source: JetNet.

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Quick Reference Specification Table

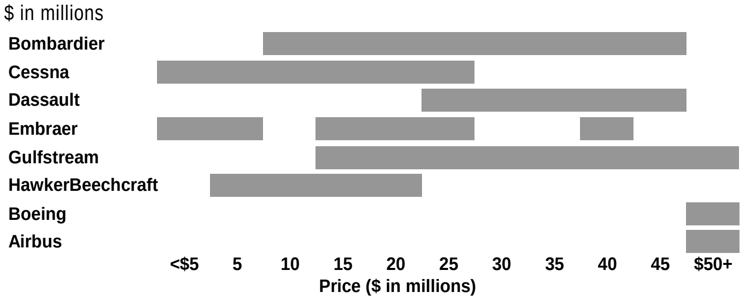
Table 3: Business Jets Quick Reference Guide

Model	Make	Engine	Avionics	Range (km)	Seating	Price ($M)
SF50*	Cirrus Design	Williams	Garmin	1,900	5-7	1.72
D-Jet*	Diamond	Williams	Garmin	2,500	2-5	1.9
Eclipse 500*	Eclipse	P&W Canada	Garmin/Honeywell/IS&S	2,084	2-4	2.15
PiperJet*	Piper Aircraft	Williams	Garmin	2,400	6	2.2
Mustang	Cessna (Textron)	P&W Canada	Garmin	2,130	4	2.5
Phenom 100	Embraer	P&W Canada	Garmin	2,148	4-6	2.9
HondaJet*	Honda	GE-Honda	Garmin	2,185	6-7	3.9
Citation CJ1+	Cessna (Textron)	Williams / Rolls-Royce	Rockwell Collins	2,696	6	4.6
Citation CJ2+	Cessna (Textron)	Williams / Rolls-Royce	Rockwell Collins	2,989	6	5.2
Citation Bravo	Cessna (Textron)	P&W Canada	Honeywell	3,685	7	6.1
Premier I	Hawker Beechcraft	Williams	Rockwell Collins	2,590	6-7	6.2
Phenom 300	Embraer	P&W Canada	Garmin	3,333	6-7	6.7
Citation CJ3	Cessna (Textron)	Williams / Rolls-Royce	Rockwell Collins	4,001	6	7.1
Beechjet 400XP	Hawker Beechcraft	P&W Canada	Rockwell Collins	3,519	7-9	7.2
Citation Encore+	Cessna (Textron)	P&W Canada	Rockwell Collins	2,696	4-6	8.1
Learjet 40	Bombardier	Honeywell	Honeywell	3,378	6-7	9.0
Learjet 45	Bombardier	Honeywell (Garrett)	Honeywell	3,704	8	10.3
Citation XLS+	Cessna (Textron)	P&W Canada	Rockwell Collins	3,805	8	11.6
Learjet 60	Bombardier	P&W Canada	Rockwell Collins	4,461	6-10	8.3
Hawker 800	Hawker Beechcraft	Honeywell	Rockwell Collins	5,560	6-14	13.8
G150	Gulfstream (GD)	Honeywell	Rockwell Collins	5,000	6-8	14.0
Legacy 450*	Embraer	Honeywell	Rockwell Collins	4260	2-8	15.3
Citation Sovereign	Cessna (Textron)	P&W Canada	Honeywell	5,222	8-12	16.2
Learjet 85*	Bombardier	TBD	TBD	5556	8	~16.0
Legacy 500*	Embraer	Honeywell	Rockwell Collins	5560	2-10	18.5
Challenger 300	Bombardier	Honeywell	Rockwell Collins	5,741	8-9	20.0
Hawker 4000	Hawker Beechcraft	Pratt & Whitney	Honeywell	5,753	8-14	20.0
Citation X	Cessna (Textron)	Rolls-Royce (Allison)	Honeywell	7,040	10	20.1
Falcon 50/EX	Dassault	Honeywell	Rockwell Collins	6,083	9-12	21.2
G200	Gulfstream (GD)	P&W Canada	Rockwell Collins	6,667	8-10	22.1
G250*	Gulfstream (GD)	Honeywell	Rockwell Collins	6,300	8-10	24.0
Legacy 600	Embraer	Rolls-Royce	Honeywell	6,504	13	24.7
Challenger 605	Bombardier	GE	Rockwell Collins	7,491	12	26.2
Challenger 800 Series	Bombardier	GE	Rockwell Collins	4,683-6,546	15-90	28.0
Falcon 2000DX/EX	Dassault	P&W Canada	Honeywell	6,019-7,037	8-12	29.0
G350	Gulfstream (GD)	Rolls-Royce	Honeywell	7,038	11-14	31.0
G450	Gulfstream (GD)	Rolls-Royce	Honeywell	8,055	11-14	34.9
Global 5000	Bombardier	Rolls-Royce	Honeywell/Rockwell Collins	8,889	8-16	36.8
Falcon 900DX/EX	Dassault	Honeywell	Honeywell	7,593-8,333	8-19	37.0
G500	Gulfstream (GD)	Rolls-Royce	Honeywell	10,740	14-19	39.6
Falcon 7X	Dassault	P&W Canada	Honeywell	10,500	8-19	40.6
Lineage 1000	Embraer	GE	Honeywell	7,778	19	41.0
Global Express	Bombardier	Rolls-Royce	Honeywell/Rockwell Collins	12,038	10-24	45.3
G550	Gulfstream (GD)	Rolls-Royce	Honeywell	12,500	14-19	47.6
G650*	Gulfstream (GD)	Rolls Royce	Honeywell	12,964	11-18	58.0
BBJ1	Boeing	CFM	Rockwell Collins/Honeywell	11,293	19-149	58.0
A318 Elite	Airbus	CFM / IAE	BFE	7,900	14-18	48.0
BBJ2	Boeing	CFM	Rockwell Collins/Honeywell	10,334	19-189	69.5
ACJ	Airbus	CFM / IAE	BFE	11,100	19-50	80.0

Source: Company reports, Teal Group, Business & Commercial Aviation. Note: * represents in development aircraft.

Figure 13: Product Pricing Span by Company

$ in millions



Source: Company data, Business & Commercial Aviation, J.P. Morgan estimates.

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Overall Market Trends

Market Share

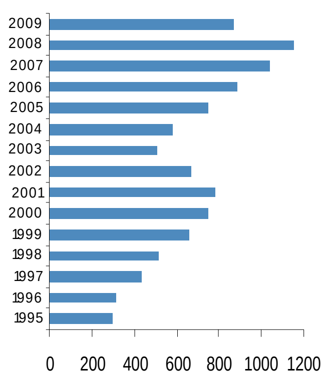
Deliveries decreased 32% in Q3

The six major business jet OEMs plus Boeing and Airbus delivered 136 business jets in 3Q10, down 32% from 201 deliveries in 3Q09, and 29% fewer than the previous quarter. Cessna lost significant market share (340 bps) as it witnessed decreased deliveries across all models except CJ4, which is new, and Citation X. Fewer Mustang deliveries (-20) were the primary culprit. Hawker Beechcraft lost 110 bps of market share as all its models saw decreased deliveries. Gulfstream gained 180 bps as all its model witnessed increased deliveries. Embraer gained 110 bps driven by Phenoms. Dassault, Airbus, Boeing and Bombardier increased their market share by 60 bps, 40 bps, 30 bps and 20 bps, respectively.

Market size by value decreased 11% y/y

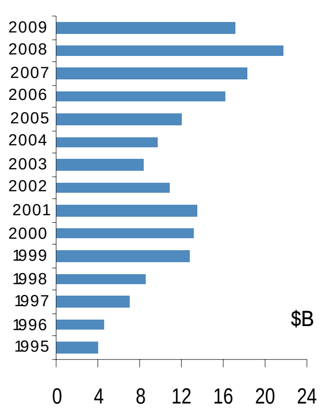
Revenues from shipments decreased 10.8% in 3Q10 compared to a year ago, significantly below the 32% decrease in volumes. The reason for the smaller decline by value was a significant mix shift toward Heavy jets, as Light and Medium jets drove the decline in volumes, while higher value Heavy jet volumes witnessed a relatively smaller decline. On a TTM basis, Gulfstream, Airbus and Boeing gained 160 bps, 100 bps and 90 bps of market share, respectively, while Cessna, Hawker Beechcraft and Bombardier lost 170 bps, 100 bps and 80 bps, respectively. Dassault and Embraer were essentially flat.

Market Size - by Volume



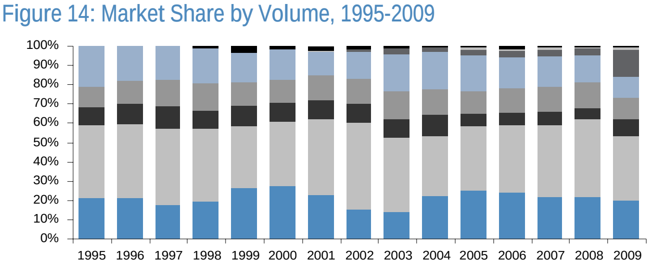
Source: Teal Group, J.P. Morgan estimates.

Market Size - by Value



Source: Teal Group, J.P. Morgan estimates.

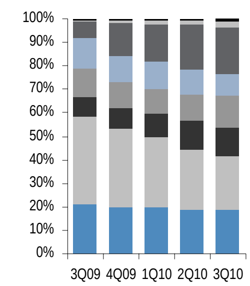
Figure 14: Market Share by Volume, 1995-2009



Bottom to Top : Bombardier, Cessna, Dassault, Gulfstream, Hawker Beechcraft, Embraer, Airbus, Boeing

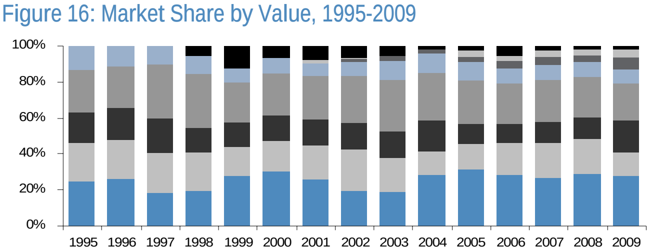
Source: Teal Group, J.P. Morgan estimates.

Figure 15: LTM



Source: Teal Group, J.P. Morgan est.

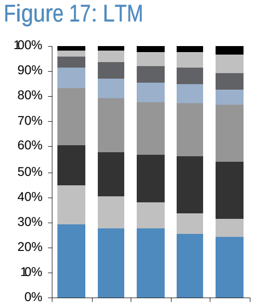
Figure 16: Market Share by Value, 1995-2009



Bottom to Top : Bombardier, Cessna, Dassault, Gulfstream, Hawker Beechcraft, Embraer, Airbus, Boeing

Source: Teal Group, J.P. Morgan estimates.

Figure 17: LTM



Source: Teal Group, J.P. Morgan est.

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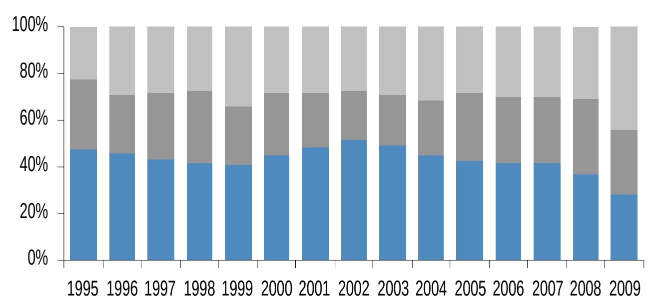
The 3Q10 delivery mix continued to shift towards larger jets, while the Medium and Light jet markets struggled. Five of the six major OEMs reported decreases in deliveries in 3Q10, while Gulfstream was the only OEM delivering more jets across all models. Cessna continued to struggle, as deliveries declined by 42 jets compared to 3Q09 to just 26 aircraft, and decreased 40% from 43 deliveries in the previous quarter. The decline in Cessna was driven by fewer deliveries of all models except Citation X and CJ4, and the latter is a new aircraft. Embraer delivered 24 aircraft, down from 28 in 3Q09, including 22 Phenoms (flat) and 2 Lineage (+1), while the company did not deliver any Legacy 600s (-5). Bombardier deliveries decreased by 11 units to 25 aircraft, due to decreases across all models except Challenger 600. Gulfstream deliveries increased by 6 units to 23, as the company delivered 3 more mid-size and 3 more Heavy jets. Hawker delivered 10 aircraft (-15), as all its models witnessed significant decreases in deliveries. Dassault delivered 3 fewer jets, primarily due to 2000EX/LX (-5). Airbus (+2) and Boeing (+2) delivered 3 jets each.

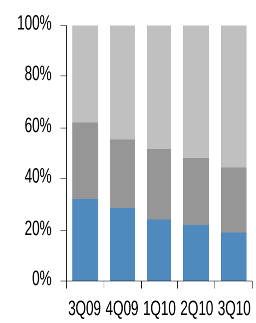
By Category, for 3Q10, Heavy jets gained a substantial 380 bps of market share by volume, resulting in a 2,360 bp gain over the last six quarters. Light jets lost 280 bps of market share in 3Q10 and 1,640 bps in the last six quarters. Medium jets also lost 100 bps of share by volume, with a 730 bp loss in the last six quarters. Similarly, by value, Heavy jets gained 260 bps at the expense of Medium (-140 bps) and Light (-130 bps). Heavy jets now have 79% market share by value and 56% by volume.

Figure 18: Category by Volume, 1995-2009



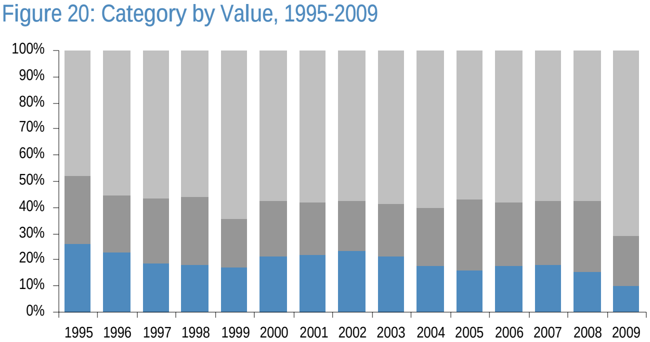
Bottom to Top : Light, Medium, Heavy
Source: Teal Group, J.P. Morgan estimates.

Figure 19: LTM



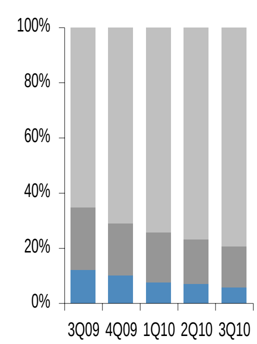
Source: Teal Group., J.P. Morgan est.

Figure 20: Category by Value, 1995-2009



Bottom to Top : Light, Medium, Heavy
Source: Teal Group, J.P. Morgan estimates.

Figure 21: LTM



Source: Teal Group, J.P. Morgan est.

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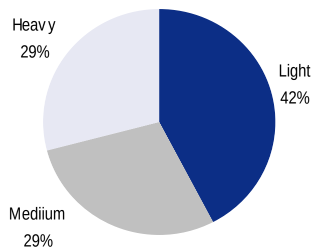
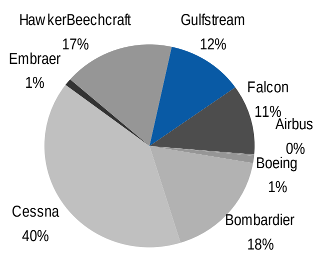
Active Fleet in Operation - Breakdown by Class



Source: JetNet.

Active Fleet in Operation - Breakdown by Manufacturer



Source: JetNet.

Note: We only consider active platforms in this section (major OEMs) – either clean sheet designs or platforms currently out of production but that have in-production derivatives.

Used Market

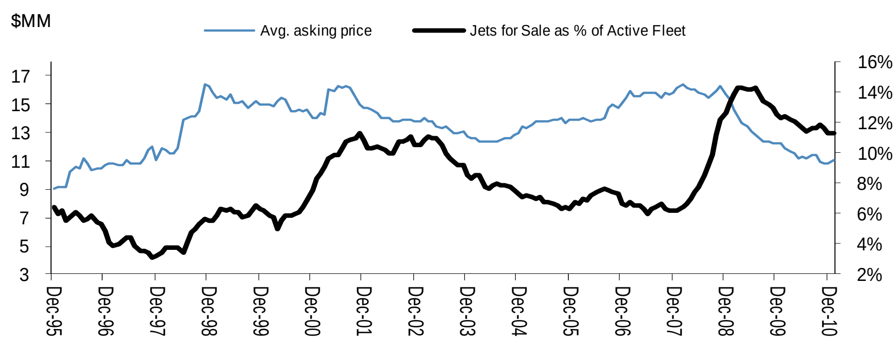
Used jet inventories remained flat, asking prices increased 2.1%

- Used jet inventory, measured by "aircraft for sale as % of active fleet," remained flat at 11.3% in January, staying within the range of 11.3%-11.9% for the ninth straight month. Inventories are 300 bps off the peak of 14.3%, 120 bps of which occurred last year. Heavy and Light jet inventories were flat for the month, while Medium jets (-10 bps) also had nominal movement. 13 of 24 tracked models witnessed decreases in inventories, 9 saw increases, while Citation X and Hawker 400/Beechcraft 400 inventories remained flat.

- Average asking price increased 2.1% to ~$11.0 mln in January, after touching the lowest level since Aug-97 in December. The price increase was driven by Heavy jets, which saw a jump of 4.3%, offsetting declines in Medium (-1.9%) and Light jet (-1.8%) prices. Average asking prices witnessed a another decline of 11% in 2010, and prices remain 32% off the Feb-08 peak of $16.3 mln. 10 of 24 tracked models saw prices rise, 11 saw decreases, and 3 had flat prices.

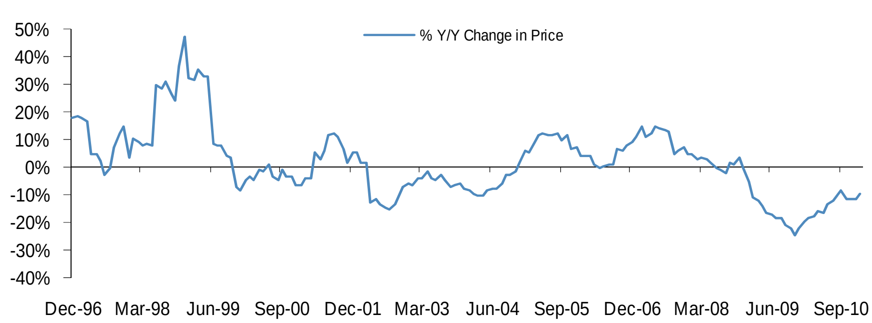
- Inventories have hovered between 11.3%-11.9% for the last nine months, and within categories, Light and Medium jets have been moving within a range as well. Inventories remain elevated in historical terms and we believe further declines are necessary to create the conditions for new jet demand to set out upon a sustainable upward path.

Figure 22: Average Asking Price and % of Active Fleet for Sale



Source: JetNet, J.P. Morgan estimates.

Figure 23: % Change in Average Asking Price



Source: JetNet, J.P. Morgan estimates.

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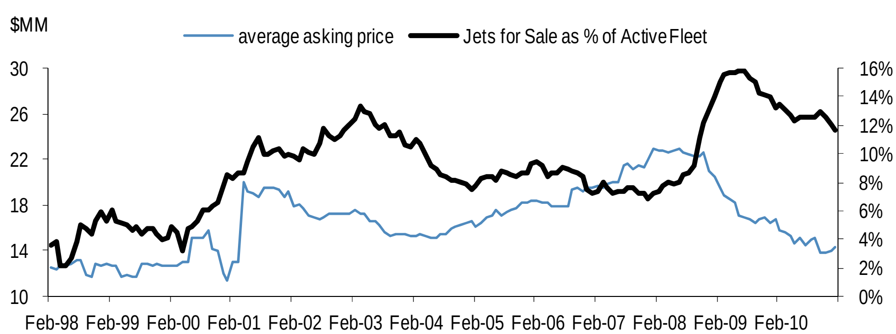
Used Market by Company

Mixed movement in Inventories, prices strong for all but Cessna and Hawker

- Inventories remained flat in January, as declines at Embraer, Bombardier, Gulfstream and Cessna were offset by inventory increases at Dassault and Hawker Beechcraft. Embraer Legacy 600 inventories decreased 70 bps, after increasing 40 bps last month. Bombardier inventories decreased 40 bps as all its models except Challenger 300 saw decreases in inventories. Gulfstream and Cessna witnessed modest declines of 10 bps each. Dassault inventories increased 90 bps driven by a 180 bp increase in Falcon 900 inventories, while Hawker Beechcraft saw an increase of 20 bps. Gulfstream continues to have the lowest inventory at 7.2% of the active fleet, followed by Dassault (10.1%). Hawker (14.2%) held its position as the OEM with the highest inventory, while Legacy 600 and Bombardier inventories were at 12.0% and 11.7%, respectively. Cessna was at 11.6%, just 10 bps below Bombardier.

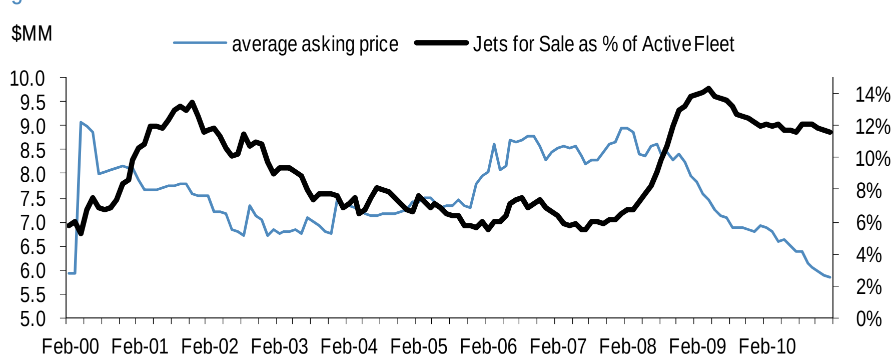
- Average asking prices increased 2.1% in December, driven by Heavy jets. OEMs with Heavy jet exposure witnessed strong pricing in January. Gulfstream had an increase of 6.0% driven by meaningful price expansion for Heavy jet models, while G100/150 and G200 saw modest declines. Dassault also saw a price increase of 3.3% as both Falcon 900 and 2000 saw price increases. Bombardier had an increase of 1.7%, while Hawker Beechcraft witnessed price contraction of 1.7%. Cessna prices were also weak, declining 0.9%, while Legacy 600 was flat.

Figure 24: Bombardier



Source: Jetnet and J.P. Morgan estimates.

Figure 25: Cessna



Source: Jetnet and J.P. Morgan estimates.

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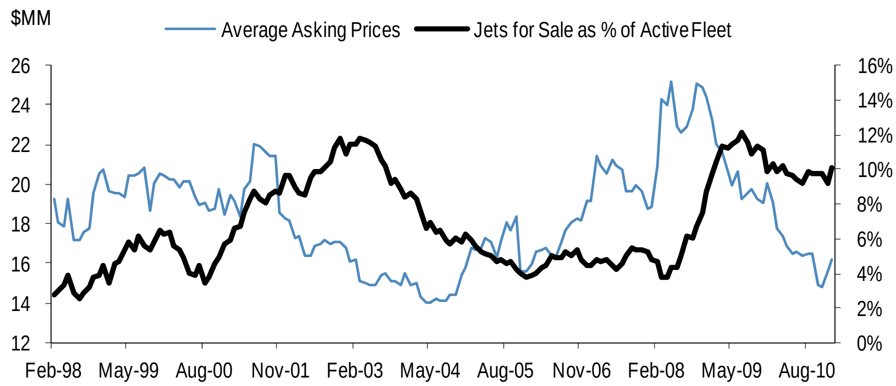
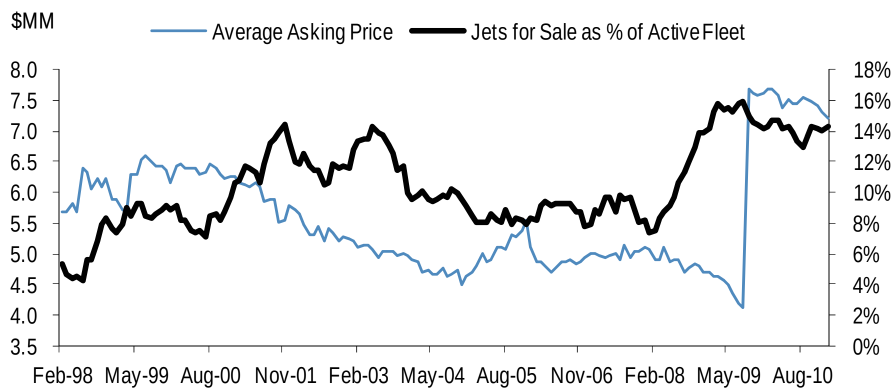
Figure 26: Dassault



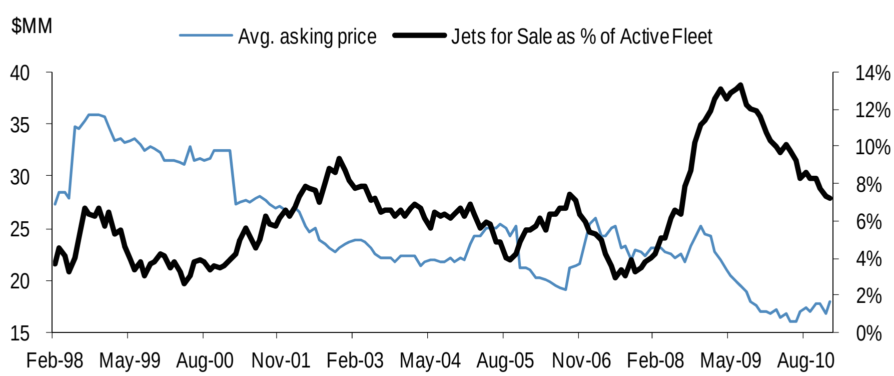
Source: Jetnet and J.P. Morgan estimates.

Figure 27: Hawker Beechcraft



Source: Jetnet and J.P. Morgan estimates. Note: The sudden increase in prices from Sep-09 is due to inclusion of Hawker 4000.

Figure 28: Gulfstream



Source: Jetnet and J.P. Morgan estimates.

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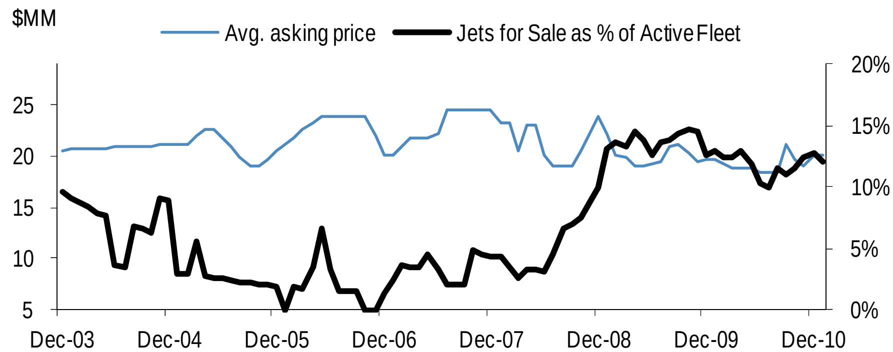
Figure 29: Embraer



Source: Jetnet and J.P. Morgan estimates.

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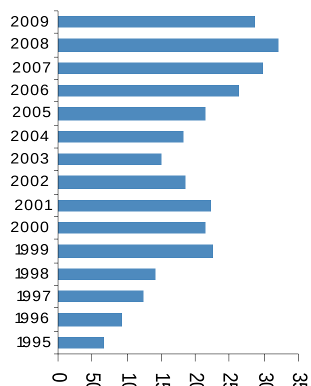
Heavy Jets

Market Share Trends

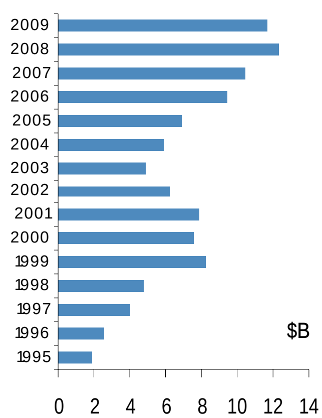
- 3Q10 Heavy jet deliveries decreased 5% to 62 aircraft, compared to 65 in 3Q09 and were down 17% compared to last quarter. Gulfstream, Airbus and Boeing saw increase in deliveries, offset by fewer deliveries by Bombardier, Dasaault and Embraer. Gulfstream delivered 3 more Heavy jets, while Airbus and Boeing bizjet deliveries increased by 2 aircraft each. Embraer delivered 5 fewer. Embraer delivered just 2 Lineage 1000s, compared to 5 Legacies and 1 Lineage in 3Q09. Bombardier delivered 3 fewer jets, including 2 Challengers and one Global Series. Dassault deliveries decreased to 22 from 25 in 3Q09 as the company delivered fewer 2000s (-5) and 7X (-1), partially offset by 900s (+3).
  - By volume, on a trailing twelve months basis, Gulfstream (+130 bps), Airbus (+70 bps) and Boeing (+70 bps) gained market share at the expense of Embraer (-130 bps), Dassault (-70 bps) and Bombardier (-70 bps). Bombardier has lost 370 bps in the last two quarters, and Dassault has gained 370 bps.
  - Similarly, by value, Airbus (+110 bps), Boeing (+110 bps) and Gulfstream (+70 bps) gained at the expense of Bombardier (-130 bps), Dassault (-90 bps) and Embraer (-80 bps).

Market Size – by Volume



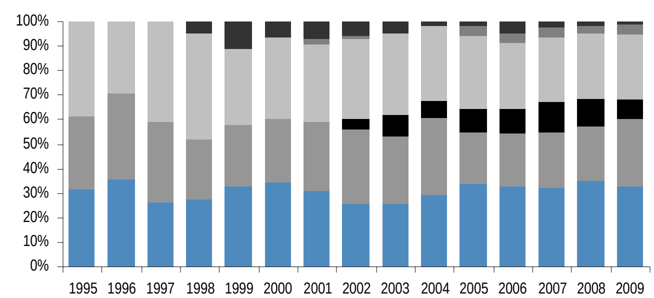
Source: Teal Group, J.P. Morgan estimates.

Market Size - by Value



Source: Teal Group, J.P. Morgan estimates.

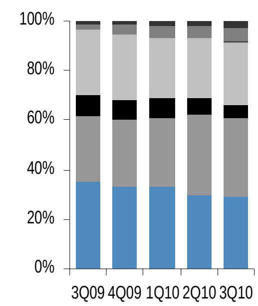
Figure 30: Market Share by Volume, 1995-2009



Bottom to Top : Bombardier, Dassault, Embraer, Gulfstream, Airbus, Boeing

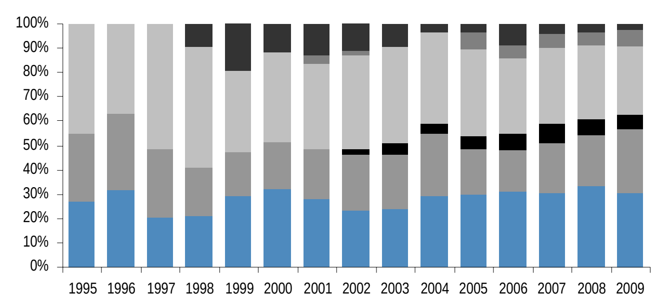
Source: Teal Group, J.P. Morgan estimates.

Figure 31: LTM



Source: Teal grp., J.P. Morgan est.

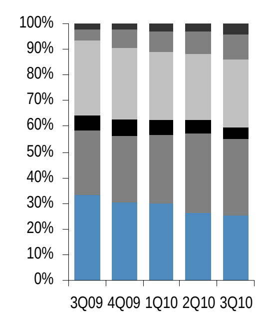
Figure 32: Market Share by Value, 1995-2008



Bottom to Top : Bombardier, Dassault, Embraer, Gulfstream, Airbus, Boeing

Source: Teal Group, J.P. Morgan estimates.

Figure 33: LTM



Source: Teal grp., J.P. Morgan est.

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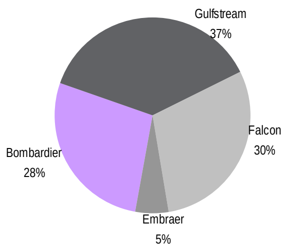
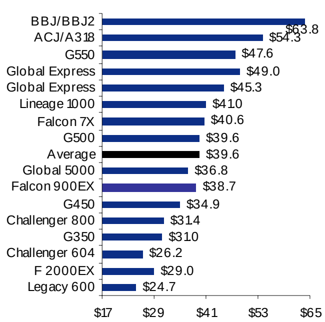
Active Fleet in Operation - Breakdown by Manufacturer



Source: JetNet

Product Price Points



Source: Company reports, Teal Group, Textron Fact book, Business & Commercial Aviation

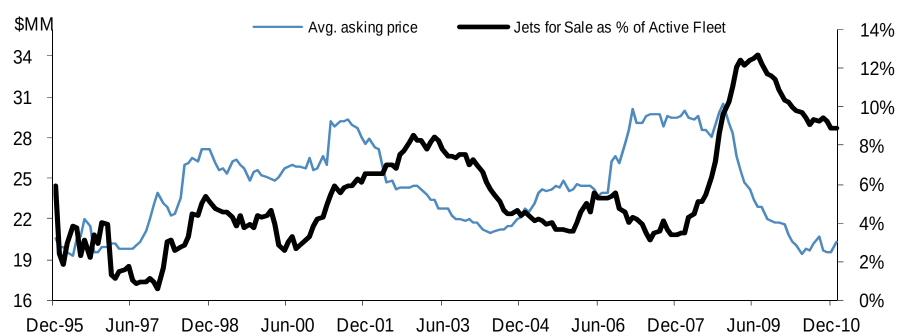
Note: We only consider active platforms in this section (major OEMs) – either clean sheet designs, or platforms currently out of production but that have in-production derivatives.

Used Market Trends

Used jet inventories remained flat; asking prices increased meaningfully

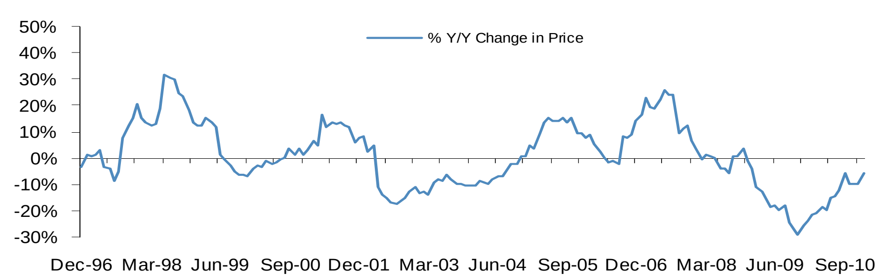
- Used jet inventory, measured by "aircraft for sale as % of active fleet," remained flat at 8.9% in January, remaining below 9.0% for the second straight month after moving between 9.0% and 9.4% for six straight months. Heavy jet inventories have decreased 380 bps from 12.7% at the Jul-09 peak, 200 bps of which occurred in 2010. Inventory declines for Global Series (-130 bps), Legacy 600 (-70 bps), Challenger 600 (-60 bps), Hawker 400 (-30 bps) and Falcon 2000 (-10 bps), were completely offset by Falcon 900 (+180 bps), Falcon 7X (+100 bps), G500/550/V (+10 bps) and G300/350/400 (+10 bps).
- Average asking prices were strong for Heavy jets, increasing 4.3% to $20.1 mln in January, after touching the lowest level since Dec-96 last month. Heavy jet prices remained below $20 mln level for 6 of the last 8 months. No Heavy jet model witnessed a price decline in January, while G300/350/400 (+16.5%) and Challenger 600 (+16.2%) saw substantial increases in price, though availability of prices for a few additional aircraft might have contributed to the increase. Global Series (+6.9%), G500/550/V (+6.9%), Falcon 900 (+3.8%) and Falcon 2000 (+2.9%) also saw increases in price. Legacy 600 and Hawker 4000 prices remained flat.
- Favorable: Falcon 2000, Challenger 600 and Global Series.
- Mixed: G500/550/V, Falcon 900 and G300/350/400 had increased prices and higher inventories, while Legacy 600 and Hawker 4000 had decreased inventories and flat prices. One Falcon 7X came to the used market for sale.

Figure 34: Average Asking Price and % of Active Fleet for Sale



Source: JetNet, J.P. Morgan estimates.

Figure 35: % Change in Average Asking Price



Source: JetNet, J.P. Morgan estimates.

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G500/G550/V

Model Specs & Product History

Model	G500/ G550
Manufacturer	Gulfstream (GD)
Engine	Rolls-Royce
Avionics	Honeywell
Range	10740/ 12500 km
Passengers	14-19
List price	$38 M/ $47.8 M

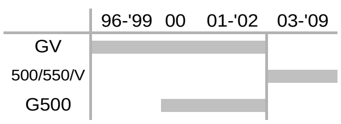
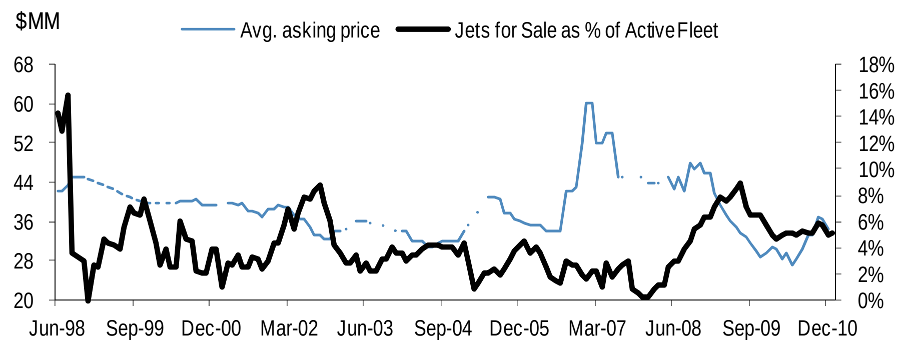


Figure 36



Source: JetNet, J.P. Morgan estimates.

Global 5000/Express/Express XRS

Model	Global 5000/ Express
Manufacturer	Bombardier
Engine	Rolls-Royce
Avionics	Honeywell
Range	8889/ 12038 km
Passengers	8-16/ 10-24
List price	$35 M/ $45.3 M

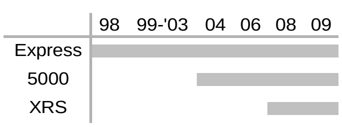
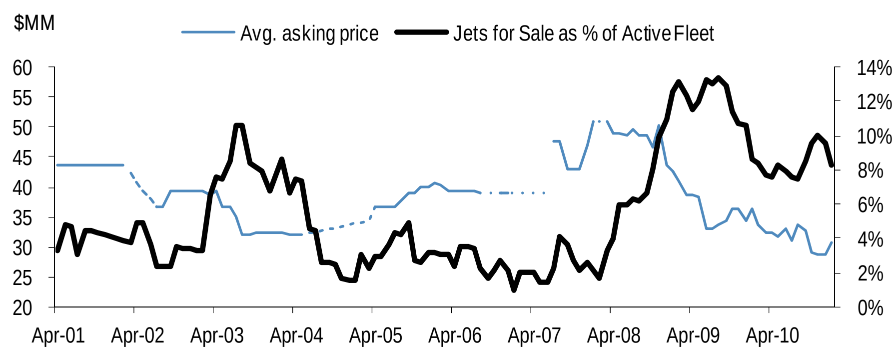


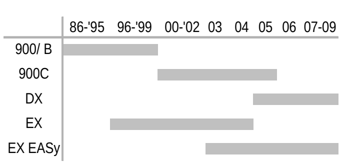
Figure 37



Source: JetNet, J.P. Morgan estimates.

Falcon 900/900B/900C/900DX/900EX

Model	Falcon 900EX
Manufacturer	Dassault
Engine	Honeywell
Avionics	Honeywell
Range	8333 km
Passengers	8-19
List price	$35 M



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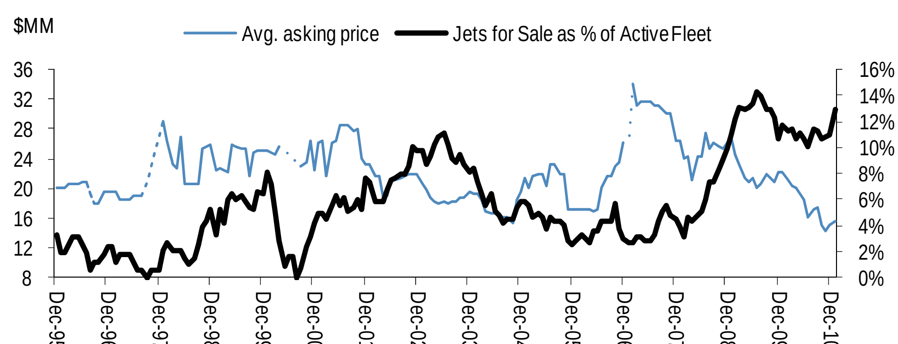

Source: JetNet, J.P. Morgan estimates.

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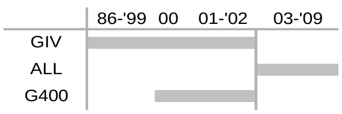
G300/G350/G400/G450/IV/IVSP

Model Specs & Product History

Model	G350/ G450
Manufacturer	Gulfstream (GD)
Engine	Rolls-Royce
Avionics	Honeywell
Range	7038/ 8055 km
Passengers	11-14
List price	$27.5 M/ $33.5 M



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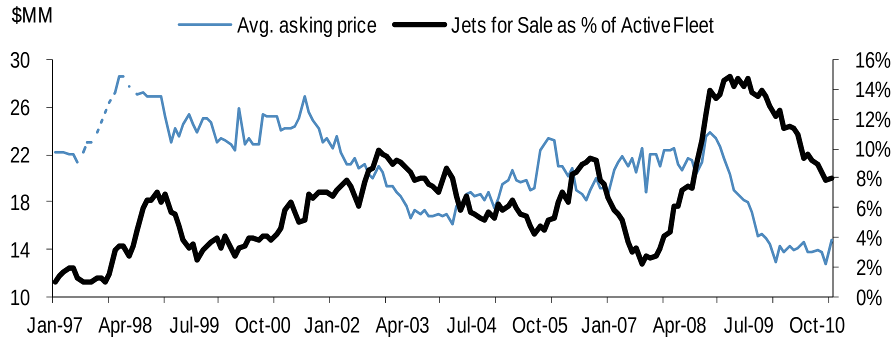
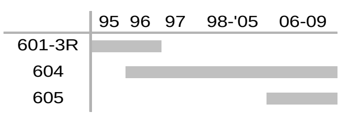


Source: JetNet, J.P. Morgan estimates.

Challenger 601-3R/604/605

Model	Challenger 604
Manufacturer	Bombardier
Engine	GE
Avionics	Rockwell Collins
Range	7551 km
Passengers	9-18
List price	$26.2 M



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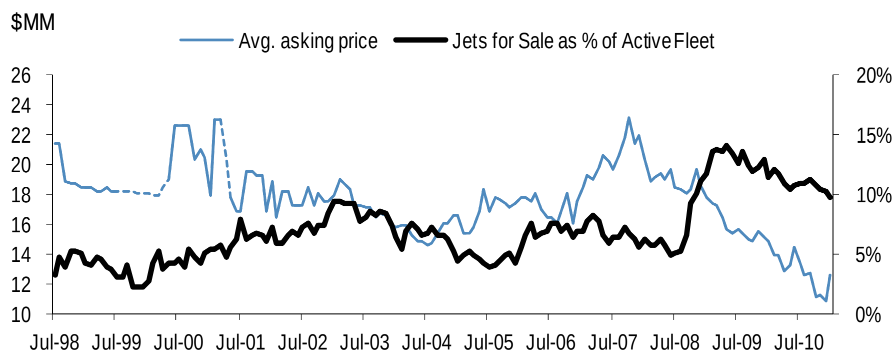


Source: JetNet, J.P. Morgan estimates.

Falcon 2000/2000EX

Model	Falcon 2000EX
Manufacturer	Dassault
Engine	P&W Canada
Avionics	Honeywell
Range	7037 km
Passengers	8-12
List price	$26.2 M

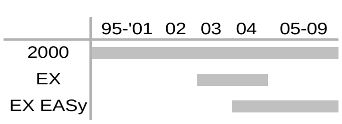
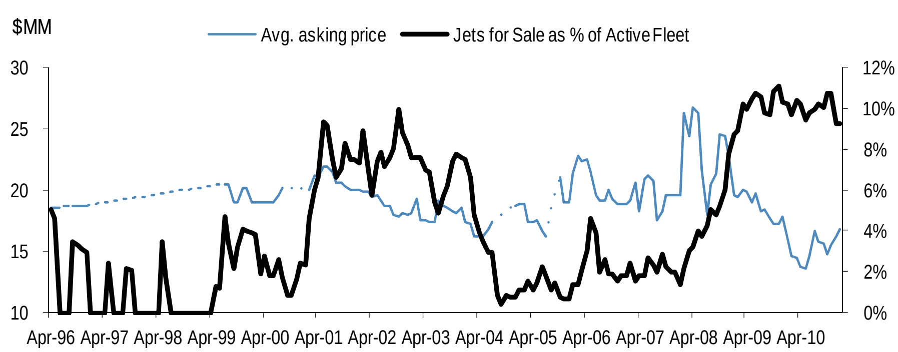


Figure 41



Source: JetNet, J.P. Morgan estimates.

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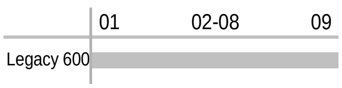
Legacy 600

Model	Legacy 600
Manufacturer	Embraer
Engine	Rolls-Royce
Avionics	Honeywell
Range	6504 km
Passengers	13
List price	$23.6 M



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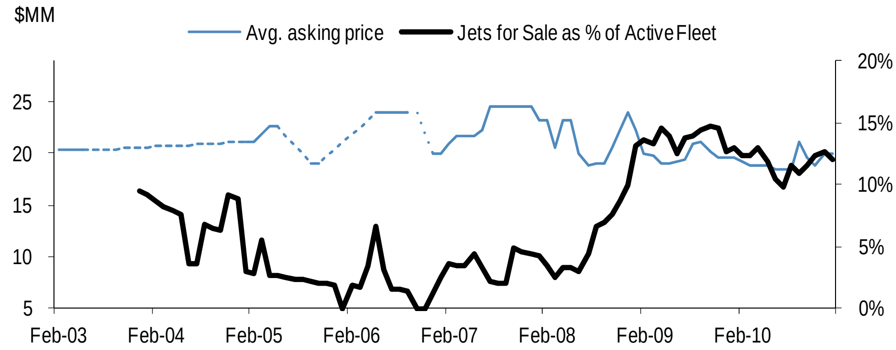
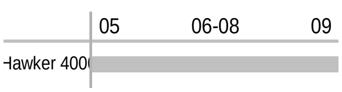


Source: JetNet, J.P. Morgan estimates.

Hawker 4000

Model	Hawker 4000
Manufacturer	HawkerBeechcr
Engine	Pratt & Whitney
Avionics	Honeywell
Range	6075 Km
Passengers	8-12
List Price	$21 mln



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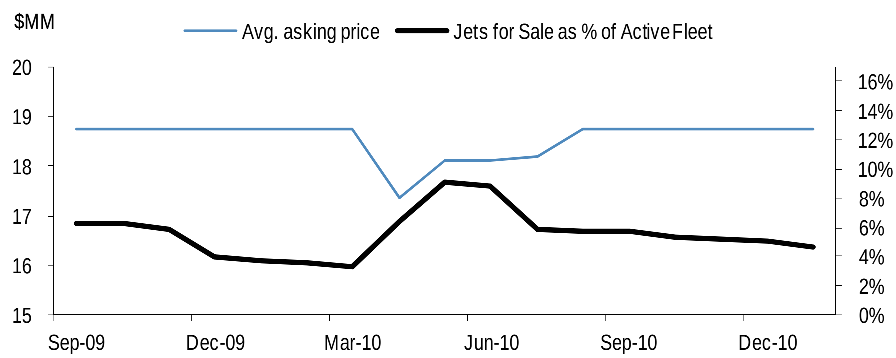
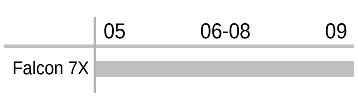


Source: Jetnet, J.P.Morgan estimates

Falcon 7X

Model	Falcon 7X
Manufacturer	Dassault
Engine	Pratt & Whitney
Avionics	Honeywell
Range	11,019 Km
Passengers	12-14
List Price	$50 mln



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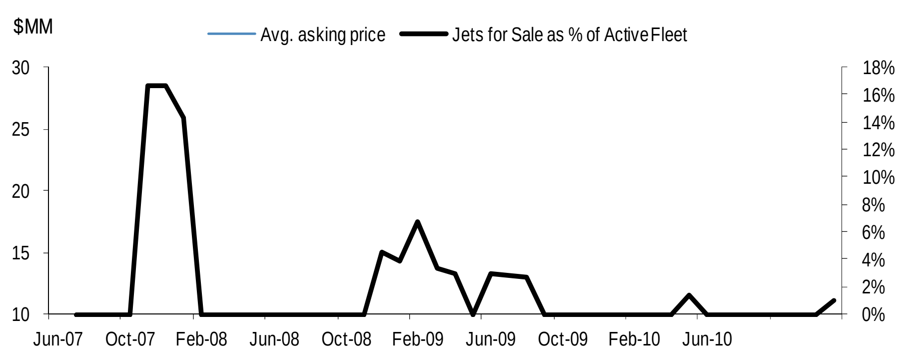

Source: Jetnet, J.P.Morgan estimates

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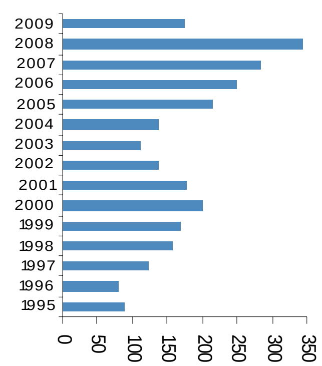
Medium Jets

Market Share Trends

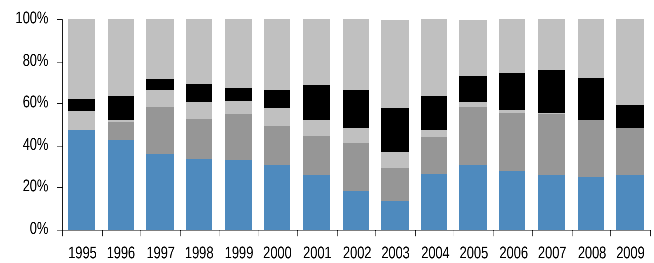
- Medium jet deliveries declined 41% to 24 jets in 3Q10 compared to 41 a year ago and decreased 4% compared to the previous quarter. All mid-size OEMs except Gulfstream reported fewer y/y deliveries in Q3. Gulfstream delivered 6 mid-size jets, 3 more than 3Q09. Hawker delivered 6 fewer 800XPs, and 3 fewer 4000s resulting in 9 fewer total deliveries. Cessna delivered just 2 Sovereigns and 1 Citation X, compared to 8 Sovereigns and 4 Xs in 3Q09. Bombardier delivered 6 Challenger 300s and 2 Learjet 60XRs, while the company had delivered 8 300s and 4 Lear 60s a year ago.
- On a trailing four quarter basis, by volume, Gulfstream and Bombardier gained 390 bps and 50 bps of market share, respectively, at the cost of Cessna and Hawker Beechcraft, which lost 310 and 130 bps of share, respectively.
- By value also, Gulfstream and Bombardier gained 390 bps and 50 bps of market share, respectively, at the expense of Cessna (-300 bps) and Hawker Beechcraft (-150 bps).

Market Size - by Volume



Source: Teal Group, J.P. Morgan estimates.

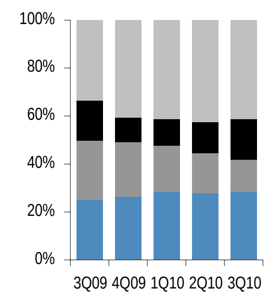
Figure 45: Market share by Volume, 1995-2009



Bottom to Top : Bombardier, Cessna, Dassault, Gulfstream, Hawker Beechcraft

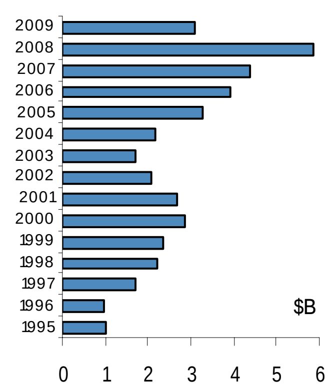
Source: Teal Group, J.P. Morgan estimates.

Figure 46: LTM



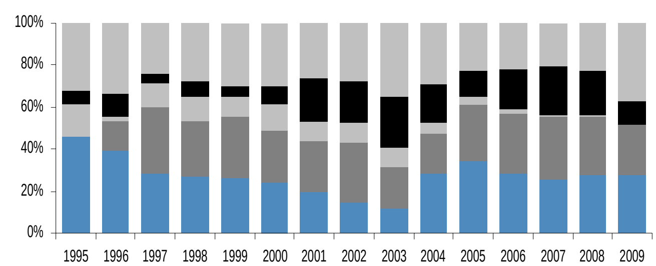
Source: Teal Group, J.P. Morgan est.

Market Size - by Value



Source: Teal Group, J.P. Morgan estimates.

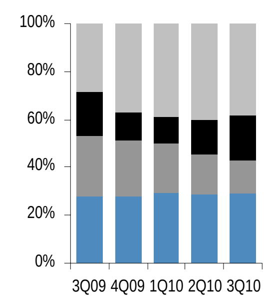
Figure 47: Market share by Value, 1995-2009



Bottom to Top : Bombardier, Cessna, Dassault, Gulfstream, Hawker Beechcraft

Source: Teal Group, J.P. Morgan estimates.

Figure 48: LTM



Source: Teal Group, J.P. Morgan est.

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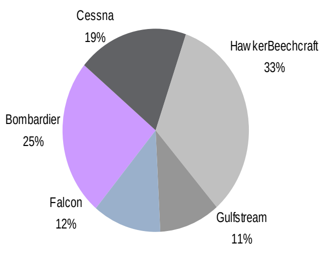
Used Market Trends

Inventories declined a modest 10 bps; average asking price decreased 1.9%

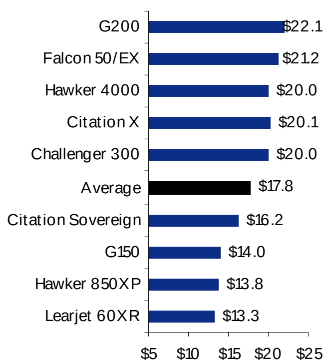
- Used jet inventory, measured by "aircraft for sale as % of active fleet," decreased 10 bps to 13.2% in January, remaining in the 13.0%-13.6% range for the 8th straight month. Inventories declined 150 bps in 2010. Citation Sovereign (-150 bps), G200 (-140 bps) and Learjet 55/60 (-60 bps) saw meaningful declines, while G100/150 (-10 bps) decreased modestly. Challenger 300 (+90 bps) and Hawker 800 (+50 bps) saw inventories increase, while Citation X remained flat.
- Average asking price for Medium jets decreased 1.9% to $9.2 mln in January, after remaining flat in December. Average medium jet prices declined 12.3% in 2010, and are now ~30% off the peak of $13.4 mln in Nov-08. Citation X (+5.2%) and Learjet 55/60 (+0.9%) saw increases in price, while all other models - Hawker 800 (-4.2%), Challenger 300 (-4.2%), G100/150 (-3.2%), Citation Sovereign (-3.0%) and G200 (-0.9%) – witnessed declining in prices.
- Favorable change: Learjet 55/60.
- Mixed: G100/150, G200 and Citation Sovereign had decreased prices and lower inventories, while Citation X saw flat inventories and higher prices.
- Unfavorable change: Challenger 300 and Hawker 800.

Active Fleet In Operation - Breakdown by Manufacturer



Source: JetNet

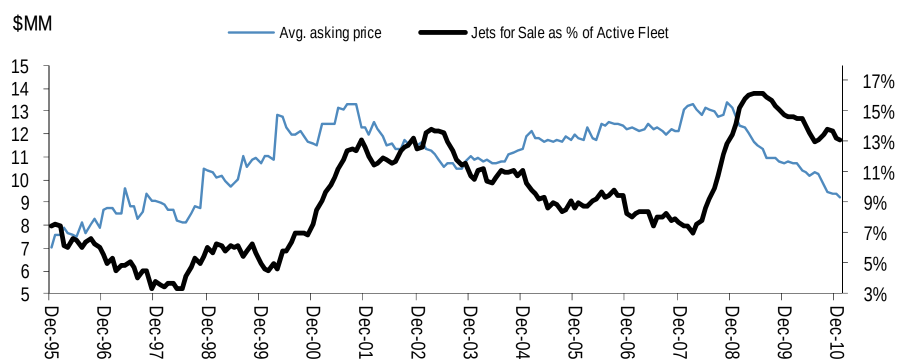
Product Price Points



Source: Teal Group, Textron Factbook, Business & Commercial Aviation

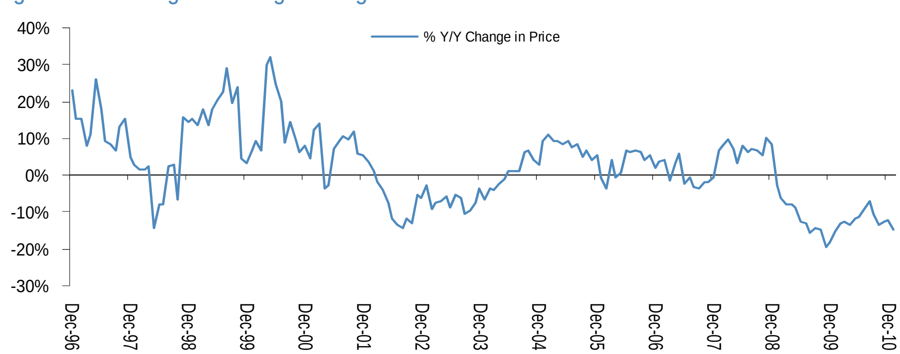
Note: We only consider active platforms in this section (major OEMs) – either clean sheet designs, or platforms currently out of production but that have in-production derivatives.

Figure 49: Average Asking Price and % of Active Fleet for Sale



Source: JetNet, J.P. Morgan estimates.

Figure 50: % Change in Average Asking Price



Source: JetNet, J.P. Morgan estimates.

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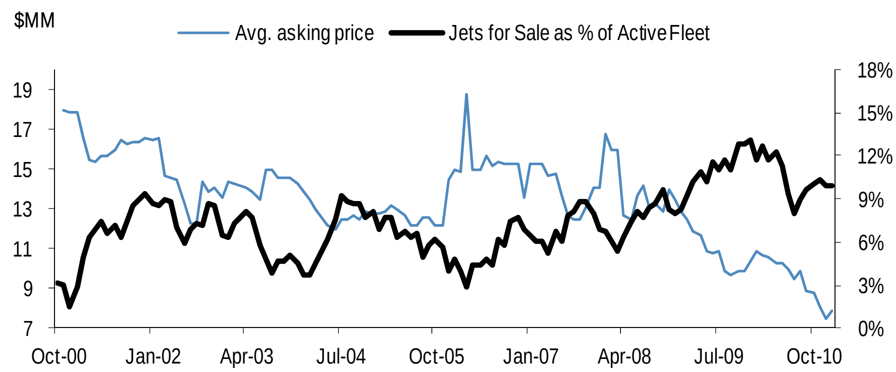
Model Specs & Product History

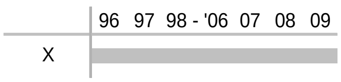
Citation X

Figure 51



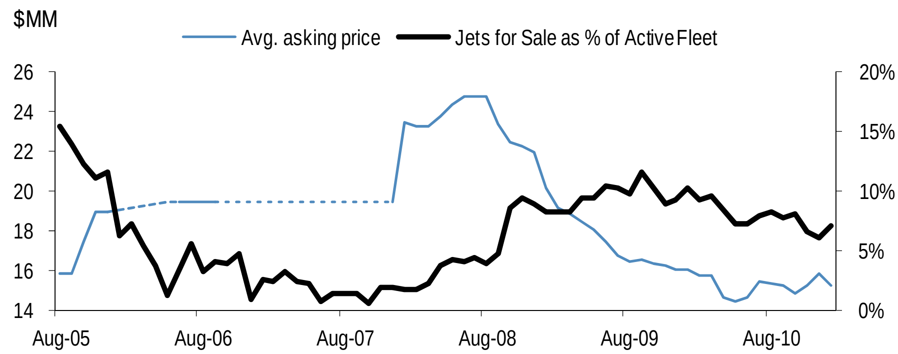
Source: JetNet, J.P. Morgan estimates.

Model	Citation X
Manufacturer	Cessna (Textron)
Engine	Rolls-Royce (Allison)
Avionics	Honeywell
Range	7040 km
Passengers	10
List price	$19.6 M



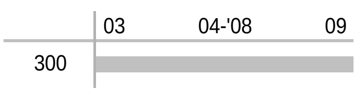
Challenger 300

Figure 52



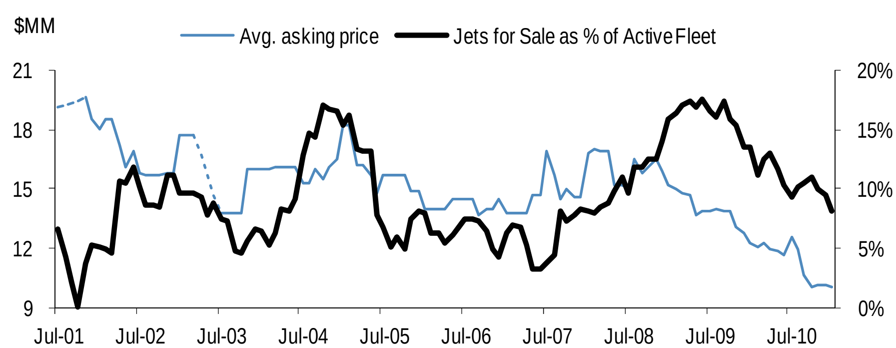
Source: JetNet, J.P. Morgan estimates.

Model	Challenger 300
Manufacturer	Bombardier
Engine	Honeywell
Avionics	Rockwell Collins
Range	5741 km
Passengers	8
List price	$18.3 M



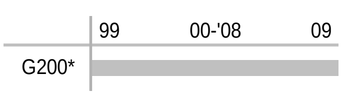
G200

Figure 53



Source: JetNet, J.P. Morgan estimates.

Model	G200
Manufacturer	Gulfstream (GD)
Engine	P&W Canada
Avionics	Rockwell Collins
Range	6667 km
Passengers	8-10
List price	$21.4 M



*from IAI Galaxy

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Citation Sovereign

Model Specs & Product History

Model	Citation Sovereign
Manufacturer	Cessna (Textron)
Engine	P&W Canada
Avionics	Honeywell
Range	5222 km
Passengers	8-12
List price	$15 M

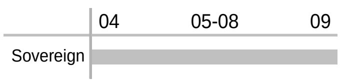
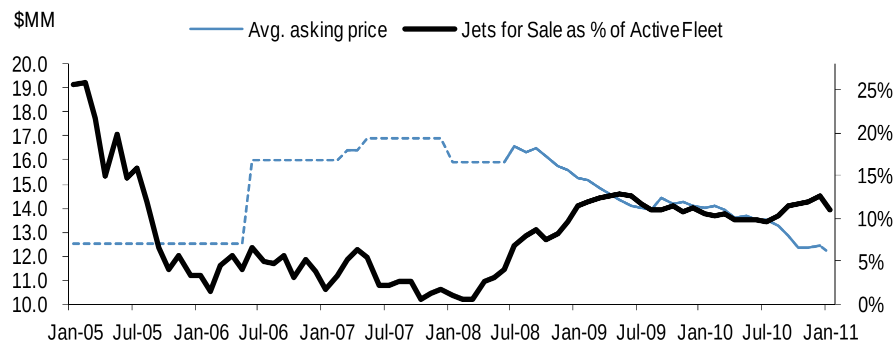


Figure 54



Source: JetNet, J.P. Morgan estimates. Note: Due to the inconsistent availability of data, dotted line represents last known asking price.

G100/150

Model	G100/ G150
Manufacturer	Gulfstream (GD)
Engine	Honeywell
Avionics	Rockwell Collins
Range	5000 km
Passengers	6-7/ 6-8
List price	$11.9 M/ $13.5 M

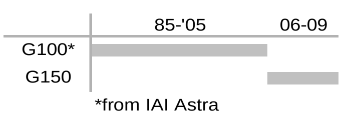
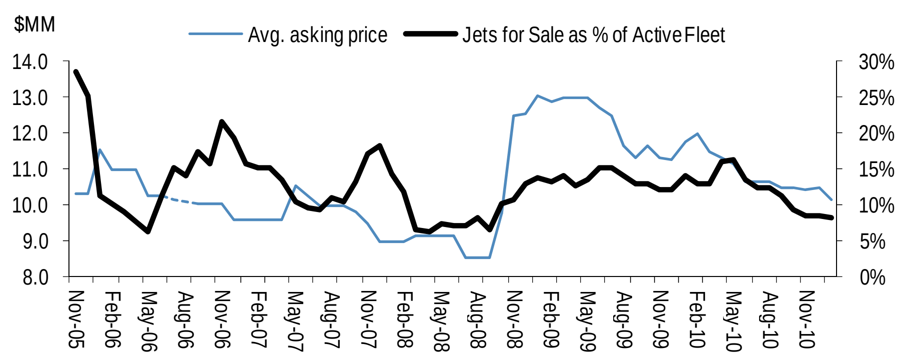


Figure 55



Source: JetNet, J.P. Morgan estimates.

Hawker 800A/800B (215-800)/800XP/800XPI/850XP

Model	Hawker 800
Manufacturer	HawkerBeechcraft
Engine	Honeywell
Avionics	Rockwell Collins
Range	5560 km
Passengers	6-14
List price	$10 M

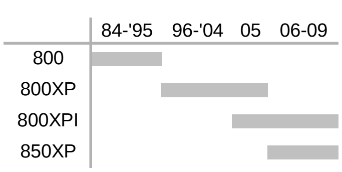
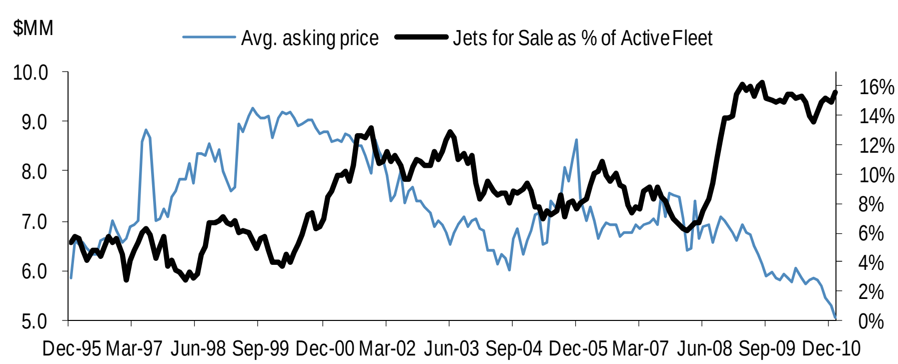


Figure 56



Source: JetNet, J.P. Morgan estimates.

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Learjet 55/55B/55C/60/60XR

Model	Learjet 60
Manufacturer	Bombardier
Engine	P&W Canada
Avionics	Rockwell Collins
Range	4461 km
Passengers	6-10
List price	$8.3 M

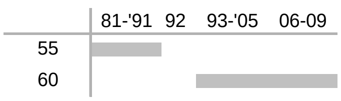
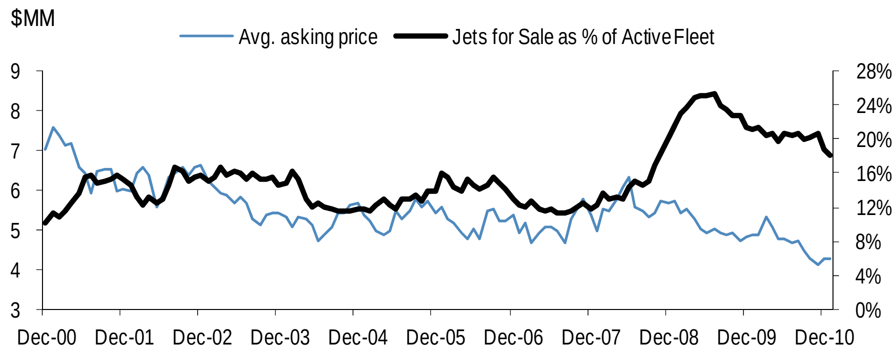


Figure 57



Source: JetNet, J.P. Morgan estimates.

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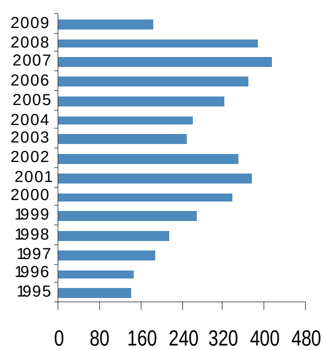
Light Jets

Market Share Trends

- 3Q10 Light jet deliveries totaled 21 aircraft, decreasing 54% from 46 in 3Q09, and down 34% compared to 21 in 2Q10. All three Light jet OEMs, Cessna, Bombardier and Hawker, delivered fewer aircraft. All Light jet models except CJ4 (+4), which had first delivery earlier this year, witnessed deceases in deliveries. Cessna delivered 16 aircraft, 15 fewer than in the year-ago period, primarily due to fewer Citation CJ3 (-9), CJ2+ (-4), CJ1+ (-4) and Encore+ (-2) deliveries. Bombardier delivered just 2 Learjet 40/45, 4 fewer aircraft than 3Q09. Hawker delivered 3 jets, 6 fewer than in the year ago period, including 3 fewer Premier Is and 3 400XPs.

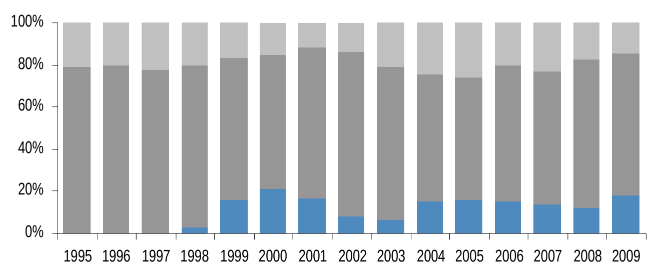
- Light jet deliveries remained depressed. On a trailing four quarter basis, Cessna gained over 170 bps of market share, despite seeing a significant decline in deliveries due to weak comps last quarter. Hawker Beechcraft lost over 160 bps market share and Bombardier lost 10 bps. Similarly, by value, Cessna gained 140 bps, at the expense of Hawker and Bombardier, who lost 130 bps and 20 bps, respectively.

Market Size - by Volume



Source: Teal Group, J.P. Morgan estimates., Business & Commercial Aviation.

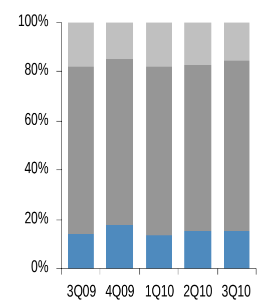
Figure 58: Market share by Volume, 1995-2009



Bottom to Top : Bombardier, Cessna, HawkerBeechcraft

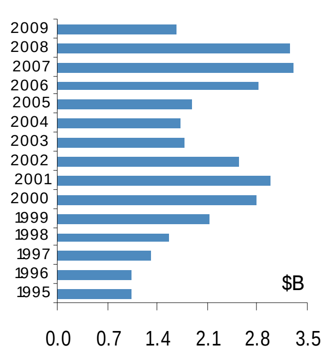
Source: Teal Group, J.P. Morgan estimates.

Figure 59: LTM



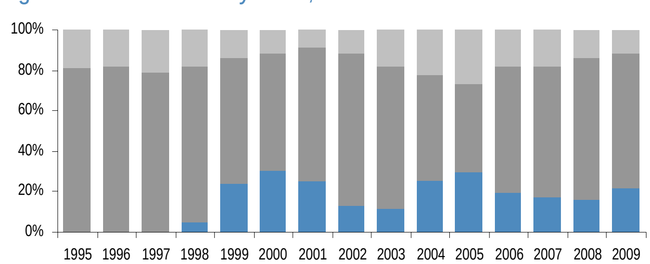
Source: Teal Group, J.P. Morgan est.

Market Size - by Value



Source: Teal Group, J.P. Morgan estimates.

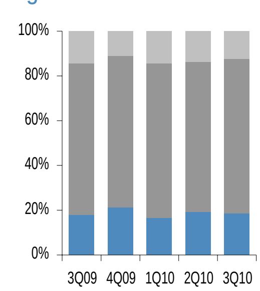
Figure 60: Market share by Value, 1995-2009



Bottom to Top : Bombardier, Cessna, HawkerBeechcraft

Source: Teal Group, J.P. Morgan estimates.

Figure 61: LTM



Source: Teal Group, J.P. Morgan est.

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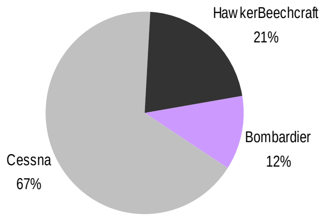
Used Market Trends

Inventories remained flat; average asking price decreased 1.8%

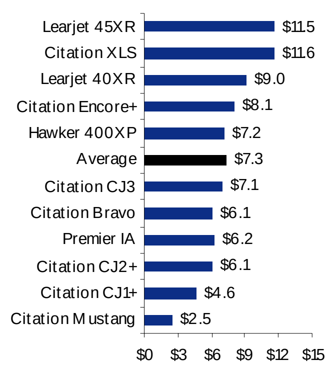
- Used jet inventory, measured by "aircraft for sale as % of active fleet," remained flat at 12.0% in January, after declining 40 bps in 2010. Inventory levels have moved within the 12.0%-12.6% range for the last 14 months. The decline in inventories for Citation CJ3 (-90 bps), Citation Excel/XLS (-50 bps), Premier I/IA (-40 bps) and Learjet 40/45 (-10 bps), was completely offset by Citation V/Ultra/Encore/Encore+ (+80 bps), CJ2/CJ2+ (+60 bps) and CJ1/CJ1+ (+20 bps). Beechjet 400/Hawker 400 inventories remained flat in January.
- The Light jet average asking price decreased 1.8% to $3.9 mln in January, after witnessing a nominal increase last month. Prices are down about 33% from the peak of $5.9 mln in Feb-08 and decreased 6.3% in 2010. Learjet 40/45 (+1.7%) and Citation CJ3 (+1.3%) were the only models witnessing increase in prices, while all other models including Cit. V/Ultra/Encore/Encore+ (-5.4%), Premier I/IA (-5.2%), Beechjet 400/Hawker 400 (-5.1%), Cit. Excel/XLS (-3.0%), CJ2/CJ2+ (-2.5%) and CJ1/CJ1+ (-0.9%) experienced declining in prices.
- Favorable change: Learjet 40/45, and Citation CJ3.
- Mixed: Premier I/IA and Citation Excel/XLS witnessed decreases in price and lower inventories, while Beechjet 400/Hawker 400 saw decreased inventories and flat prices.
- Unfavorable change: Citation CJ1/CJ1+, CJ2/CJ2+ and Cit. V/Ultra/Encore/Encore+.

Active Fleet In Operation - Breakdown by Manufacturer



Source: JetNet

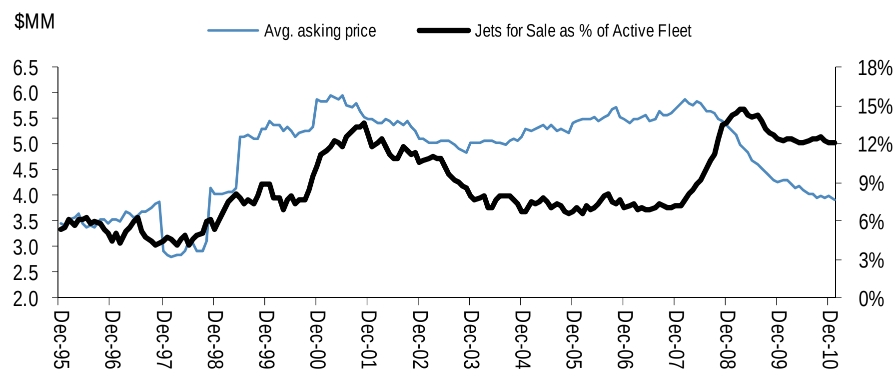
Product Price Points



Source: Teal Group, Textron Factbook

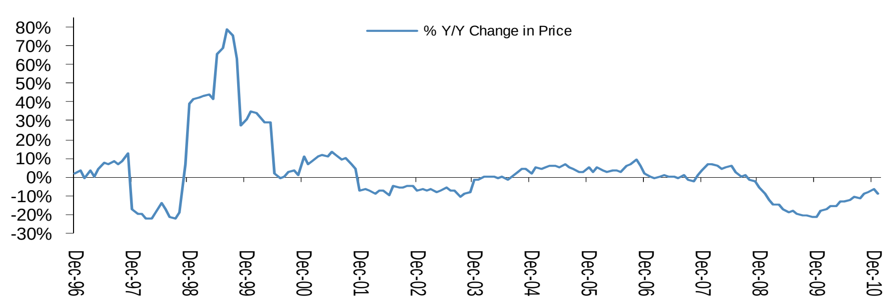
Note: We only consider active platforms in this section (major OEMs) – either clean sheet designs, or platforms currently out of production but that have in-production derivatives.

Figure 62: Average Asking Price and % of Active Fleet for Sale



Source: JetNet, J.P. Morgan estimates.

Figure 63: % Change in Average Asking Price



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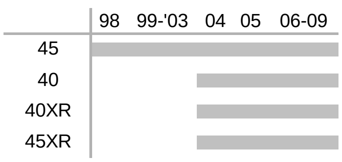
Source: JetNet, J.P. Morgan estimates.

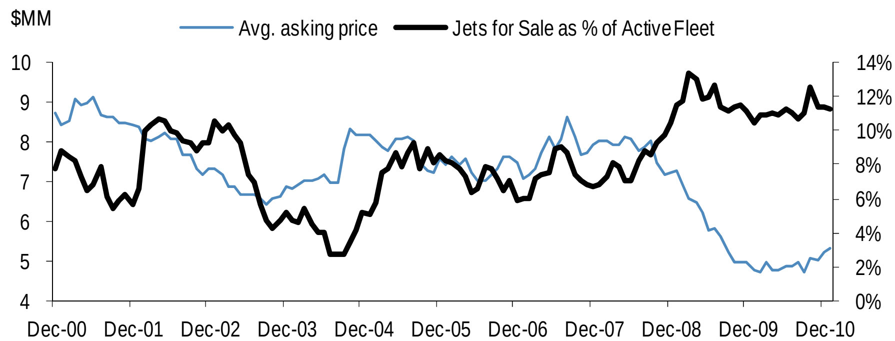
Model Specs & Product History

Model	Learjet 45
Manufacturer	Bombardier
Engine	Honeywell (Garrett)
Avionics	Honeywell
Range	3704 km
Passengers	8
List price	$10.3 M



Learjet 40/40XR/45/45XR

Figure 64

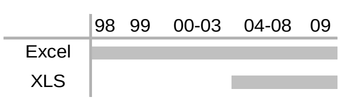


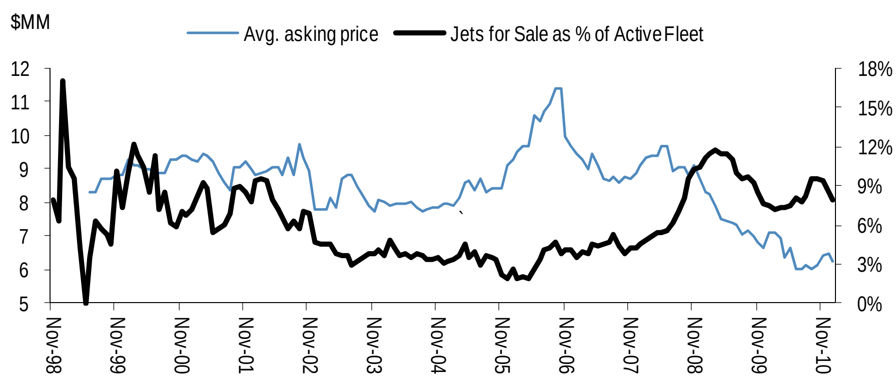
Source: JetNet, J.P. Morgan estimates.

Citation Excel/XLS

Figure 65

Model	Citation XLS
Manufacturer	Cessna (Textron)
Engine	P&W Canada
Avionics	Honeywell
Range	3805 km
Passengers	8
List price	$10.5 M





Source: JetNet, J.P. Morgan estimates.

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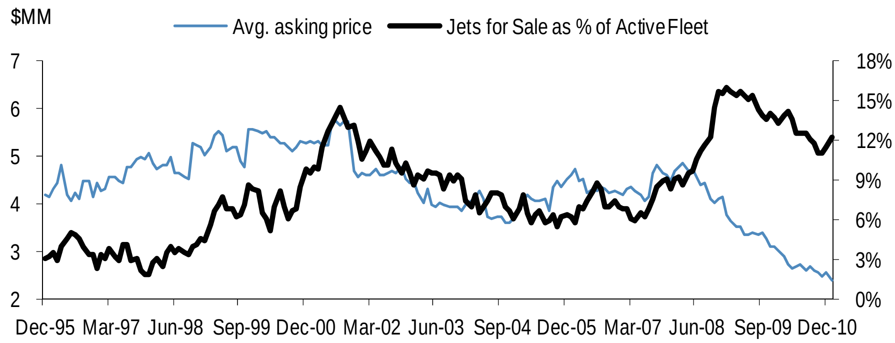
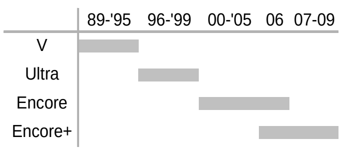
Citation V/Ultra/Encore/Encore+

Figure 66



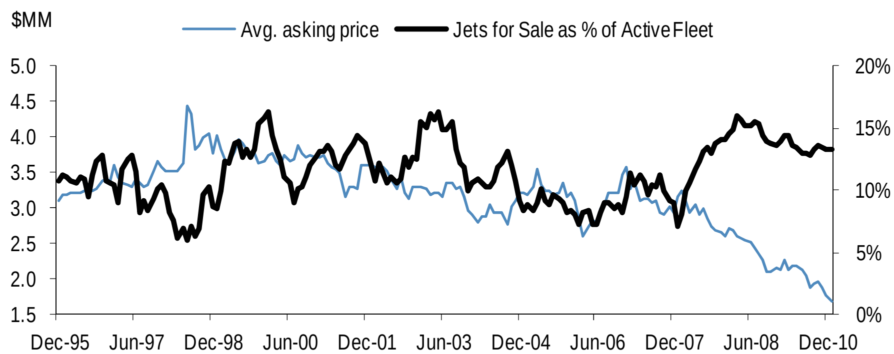
Source: JetNet, J.P. Morgan estimates.

Model	Citation Encore
Manufacturer	Cessna (Textron)
Engine	P&W Canada
Avionics	Honeywell
Range	2696 km
Passengers	4-6
List price	$8.1 M



Beechjet 400/400A/Hawker 400XP

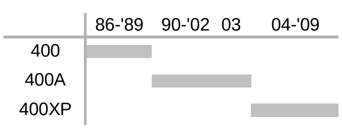
Figure 67



Source: JetNet, J.P. Morgan estimates.

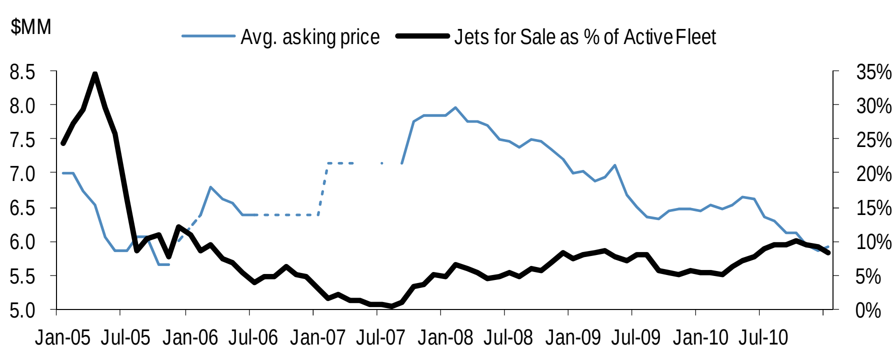
Model Specs & Product History

Model	Beechjet 400XP
Manufacturer	HawkerBeechcraft
Engine	P&W Canada
Avionics	Rockwell Collins
Range	3519 km
Passengers	7-9
List price	$7 M



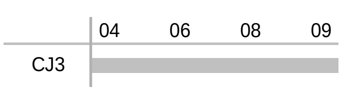
CitationJet CJ3

Figure 68



Source: JetNet, J.P. Morgan estimates.

Model	Citation CJ3
Manufacturer	Cessna (Textron)
Engine	Williams / Rolls-Royce
Avionics	Rockwell Collins
Range	4001 km
Passengers	6
List price	$6.4 M



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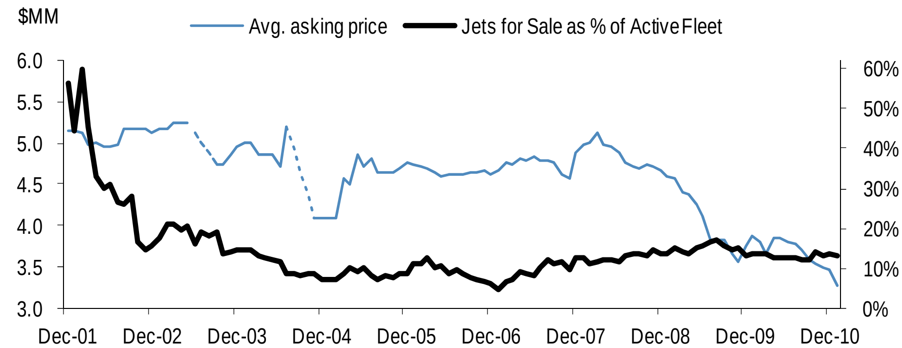
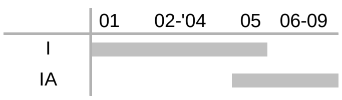
Premier I/IA

Figure 69



Source: JetNet, J.P. Morgan estimates.

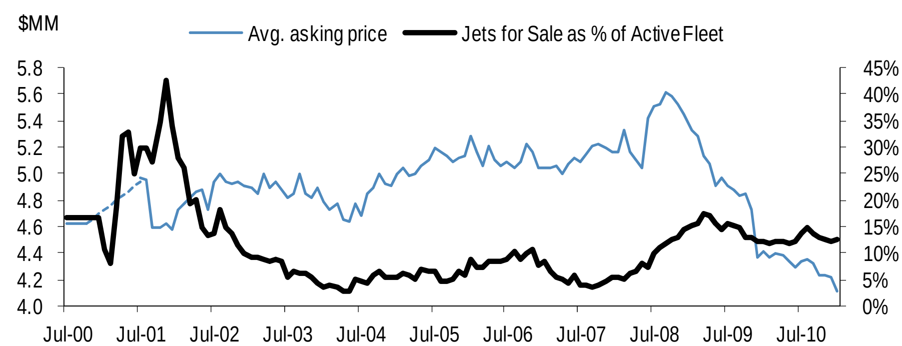
Model	Premier I
Manufacturer	HawkerBeechcraft
Engine	Williams
Avionics	Rockwell Collins
Range	2590 km
Passengers	6-7
List price	$5.7 M



Model Specs & Product History

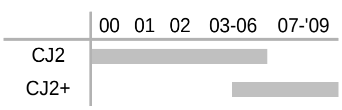
CitationJet CJ2/CJ2+

Figure 70



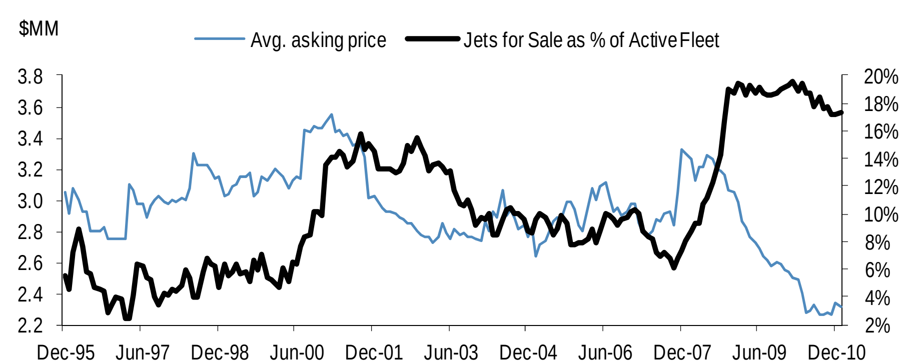
Source: JetNet, J.P. Morgan estimates.

Model	Citation CJ2+
Manufacturer	Cessna (Textron)
Engine	Williams / Rolls-Royce
Avionics	Rockwell Collins
Range	NA
Passengers	6
List price	$5.4 M



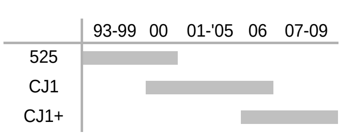
CitationJet (Model 525)/CJ1/CJ1+

Figure 71



Source: JetNet, J.P. Morgan estimates.

Model	Citation CJ1+
Manufacturer	Cessna (Textron)
Engine	Williams / Rolls-Royce
Avionics	Rockwell Collins
Range	2696 km
Passengers	6
List price	$4.2 M



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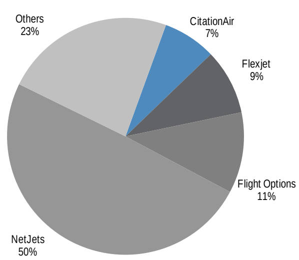
Fractional Jets

Provider Fleet Trends

Fractional fleet continues to decline

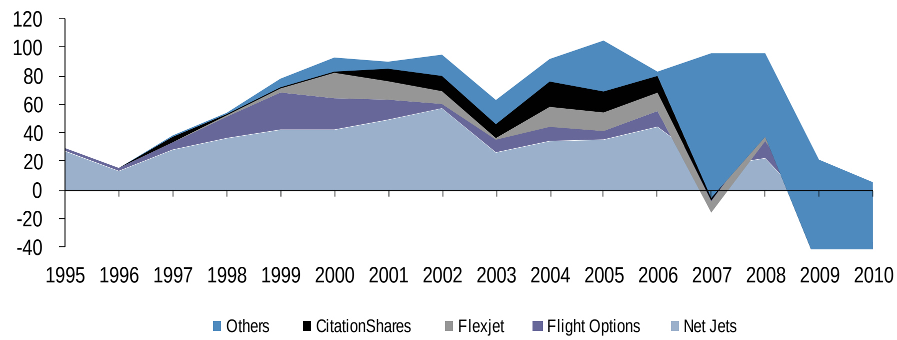
- The total fractional fleet decreased by another four aircraft to 871 in December, contracting by 26 aircraft in 2010. The fractional fleet is down by 89 aircraft from the peak of 960 in January 2009, a ~9% decline. Initial January numbers point to a steep decline in the fractional fleet.
- The three-month rolling average of gross fleet additions increased to 2.7 in December, from 1.0 last month. The average of new jet additions increased to 1.3 from 0.3, and the average of used jet additions increased to 1.3, from 0.7 last month.

Fractional Fleet Base - Breakdown by Provider



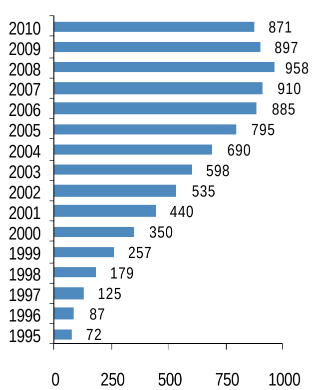
Source: JetNet

Figure 72: Fractional Fleet Additions, by Provider



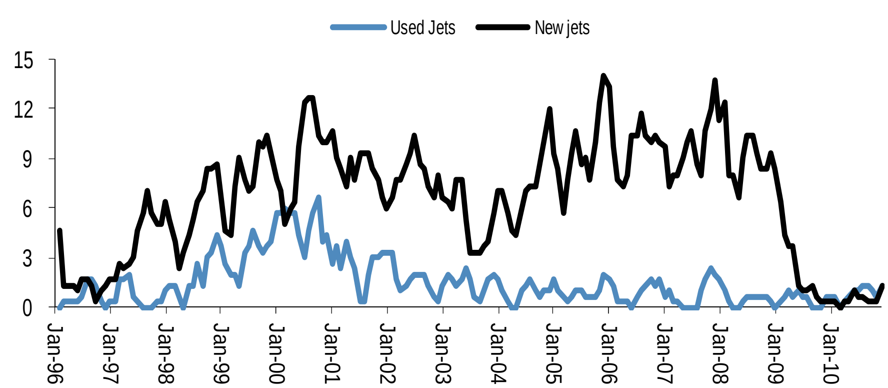
Source: JetNet, J.P. Morgan estimates.

Fractional Fleet base



Source: JetNet

Figure 73: Fractional Fleet Additions, Used and New—3 Month Rolling Average



Source: JetNet, J.P. Morgan estimates.

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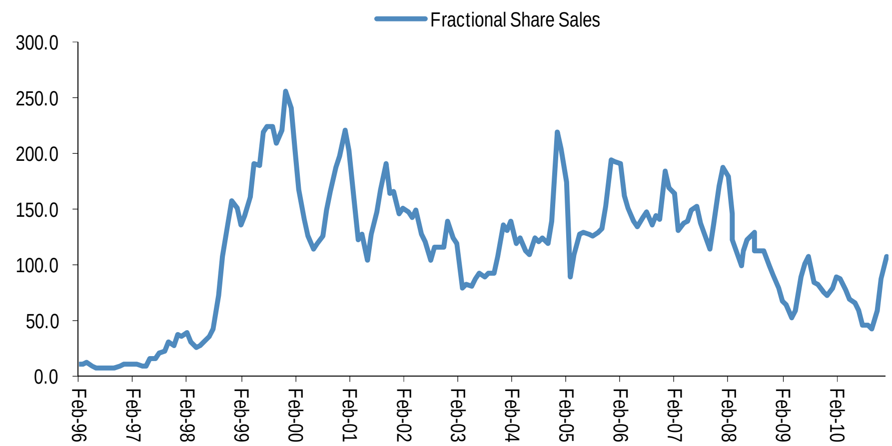
Share Sales Trend

Share sales continued to increase, on rolling three month basis, in December

- On an absolute basis, December share sales were up 6.4% y/y, but decreased 9.3% from November.
- On a rolling three-month average basis, share sales increased 35.4% y/y, and were up 23.1% sequentially.

Figure 74: Fractional Share Sales, by Providers (# of shares) – 3m rolling avg.



Source: JetNet, J.P. Morgan estimates.

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