

Aerospace and Defense

Business Jet Monthly - April 2014

This report contains our industry delivery projections plus data on market share and the used market. The industry is an important driver for many stocks we cover, including BBD/B, TXT, GD, ERJ, and COL.

- Another data point ticks up: used prices improved in March.** While it is only one data point, the 1.9% m/m increase in used prices was the strongest in over a year and only the second sequential increase greater than 1% since the start of 2013. Increasing flight operations and declining inventory have pointed toward a firming market since mid 2013, but persistently weak used pricing has been a reason for caution, and we would view an upward turn here as a meaningful indicator that stronger new jet demand is approaching, particularly in conjunction with Bombardier's more optimistic view (see below). However, some of this increase was due to mix as there is a larger number of G550's for sale, and there have been false starts in the recent past, so we will watch for further progress.
- Q1 earnings should offer more color on market conditions.** At its investor event last month, Bombardier indicated that activity in the US is picking up a bit, particularly for mid-size aircraft, a more bullish assessment than last year when the company's characterization of demand as weak proved accurate. We will be looking to Cessna and Embraer to either reinforce this assessment or offer a more cautious one, although we do not expect any of the managements to be anything more than cautiously optimistic given the backdrop. We also see GD Aerospace (primarily Gulfstream) operating margin as a key data point in Q1, as we believe it could be a source of EPS upside for the year. Guidance calls for 17% this year, down a bit from the 17.4% generated last year that exceeded initial guidance by ~200 bps.
- Used jet inventory remained flat in March.** Aircraft for sale were 8.9% of the in-production fleet for in-production models, flat since January. Declines in Light and Heavy jet inventory were offset by an increase in Medium jet inventory. Estimated "toddler and pre-K" inventory (0-5 year old aircraft for sale) picked up 30 bps to 5.8%, although it is still down 190 bps y/y and below the long term average of 6.6%.
- Avg asking price increased 1.9% m/m in Mar.** While this is a solid data point, pricing was still down 9.6% on a y/y basis. Heavy jets, especially at Gulfstream, drove the price increase, partially offset by weakness in the Medium jet segment. Light jets continued to show strength, with the fifth price increase in six months.
- Flight ops grew 3.5% y/y in Feb.** Three month moving average growth is now up to 5.8%, the best result since the spring of 2011. Flight ops remain 15% below Feb 2007, however, suggesting significant potential for further improvement. European flight ops increased 0.1% in Mar, after declining during Jan-Feb; the three month moving average is down 0.7% y/y.

Aerospace & Defense

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Business Jet Delivery Forecast

Table 1: Aircraft Deliveries, 2002 - 2016E

JPM Delivery Forecast, 2014E-2016E

	14E	15E	16E
Total	706	811	922

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014E	2015E	2016E
Bombardier															
Challenger 600	31	24	29	36	29	35	44	36	38	43	34	32	35	35	32
Challenger 300	-	1	28	51	55	51	60	33	29	37	48	55	63	70	70
Challenger 800	-	-	-	4	18	12	17	7	6	6	4	2	2	3	3
Global Express/6000	17	14	20	14	22	25	27	25	24	25	25	33	36	37	35
Global 5000	-	-	4	17	18	23	25	26	25	28	29	29	35	36	35
Learnjet 40/70	-	-	17	21	26	23	21	14	6	14	13	4	14	16	15
Learnjet 45/75	27	17	22	30	30	34	27	19	10	10	14	15	15	18	20
Learnjet 60/60XR	12	9	18	15	23	23	26	13	12	19	12	10	-	-	-
Learnjet 85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
<i>Discontinued Models</i>	9	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	101	70	129	188	213	226	247	173	150	182	179	180	200	215	225
Cessna (Textron)															
Citation Mustang	-	-	-	-	1	45	101	125	73	43	38	20	17	16	16
Citation M2	-	-	-	-	-	-	-	-	-	-	-	12	28	32	35
Citation Jet/CJ1	30	22	20	18	25	34	20	14	3	2	-	-	-	-	-
Citation Jet/CJ2	86	56	27	23	37	44	56	21	17	15	19	15	13	15	20
Citation Jet/CJ3	-	-	6	48	72	78	88	40	20	22	21	15	8	15	20
Citation CJ4	-	-	-	-	-	-	-	-	19	48	44	33	29	35	42
Citation Encore	36	21	24	17	14	23	28	5	5	4	-	-	-	-	-
Citation Excel	81	48	55	62	73	82	80	44	22	27	31	31	29	24	18
Citation Latitude	-	-	-	-	-	-	-	-	-	-	-	-	-	10	20
Citation Sovereign	-	-	9	46	57	65	77	33	16	19	22	13	15	20	20
Citation X	31	18	15	14	12	17	16	7	3	3	6	-	-	-	-
New Citation X	-	-	-	-	-	-	-	-	-	-	-	-	16	15	15
<i>Discontinued Models</i>	41	31	25	21	18	-	-	-	-	-	-	-	-	-	-
Total	305	196	181	249	309	388	466	289	178	183	181	139	155	182	206
Dassault															
Falcon 50/EX	10	8	5	5	5	2	1	-	-	-	-	-	-	-	-
Falcon 900/B/C	4	3	3	1	-	-	-	-	-	-	-	-	-	-	-
Falcon 900DX	-	-	-	2	4	10	4	1	3	-	-	-	-	-	-
Falcon 900EX	17	10	15	16	16	18	19	17	21	12	7	11	10	10	10
Falcon 2000/2000S	35	12	11	6	6	1	3	1	-	-	-	12	8	10	12
Falcon 2000EX	-	16	29	21	30	33	18	3	-	-	-	-	-	-	-
Falcon 2000LX	-	-	-	-	-	-	6	23	30	20	22	11	22	25	28
Falcon 7X	-	-	-	-	-	6	21	32	41	31	37	43	30	30	32
Total	66	49	63	51	61	70	72	77	95	63	66	77	70	75	82
Embraer															
Phenom 100	-	-	-	-	-	-	2	97	100	47	29	30	29	33	42
Phenom 300	-	-	-	-	-	-	-	1	26	36	48	60	65	68	75
Legacy 450/500	-	-	-	-	-	-	-	-	-	-	-	-	6	23	45
Legacy 600/shuttle	8	13	13	14	27	35	36	18	10	13	19	25	20	23	25
Lineage 1000	-	-	-	-	-	-	-	5	8	3	3	4	3	3	3
<i>Discontinued Models</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	8	13	13	14	27	35	38	121	144	99	99	119	123	150	190
Gulfstream															
G100/ G150	9	5	9	12	20	32	39	11	13	7	7	5	10	14	16
G200/ 280	15	19	13	14	22	27	30	8	11	10	10	24	30	32	32
G300/ 350	-	8	5	12	12	13	12	-	-	-	-	-	-	-	-
G400/ 450/ IV/ IVSP	29	13	19	14	16	20	20	30	31	35	31	30	26	24	24
G500/ 550/ V/ VSP	32	29	32	37	43	46	55	45	44	43	49	44	45	42	42
G650	-	-	-	-	-	-	-	-	-	12	24	36	47	52	55
Total	85	74	78	89	113	138	156	94	99	107	121	139	158	164	169
Hawker Beechcraft															
Premier IA/II	29	29	37	30	23	54	31	16	11	11	3	-	-	-	-
Hawker 400XP	19	24	28	53	53	41	35	11	12	1	-	-	-	-	-
Hawker 800 series	46	47	50	58	64	67	88	51	34	30	17	-	-	-	-
Hawker 4000	-	-	-	-	-	-	6	20	16	10	12	6	-	-	-
<i>Discontinued Models</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	94	100	115	141	140	162	160	98	73	52	32	6	-	-	-
HondaJet	-	-	-	-	-	-	-	-	-	-	-	-	-	25	50
Total w/o VLJs	659	502	579	732	862	974	1,033	628	566	596	611	610	660	737	825
% change	-14%	-24%	15%	26%	18%	13%	6%	-39%	-10%	5%	3%	0%	8%	12%	12%
Total w/ VLJs	659	502	579	732	863	1,019	1,136	846	739	686	678	660	706	811	922
% change	-14%	-24%	15%	26%	18%	18%	11%	-26%	-13%	-7%	-1%	-3%	7%	15%	14%

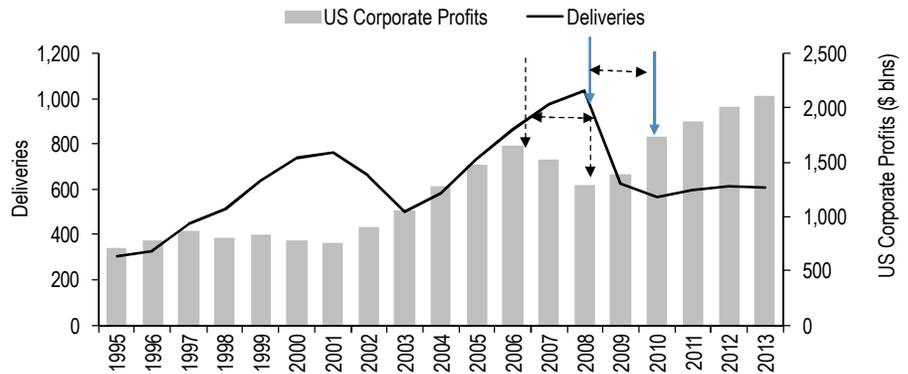
Notes: VLJs include Cessna Mustang, Embraer Phenom 100, and HondaJet. Gulfstream deliveries are green deliveries.
Source: GAMA, company reports and J.P. Morgan estimates.

Macro Drivers & Market Cycle

Demand for business jets is in part a function of corporate profits. During the early 2000s downturn, 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 two years before growth returned in 2004 (see Figure 1). At the same time, global profits peaked in 2000, with significant growth returning in 2003 as deliveries hit their low point (Figure 2).

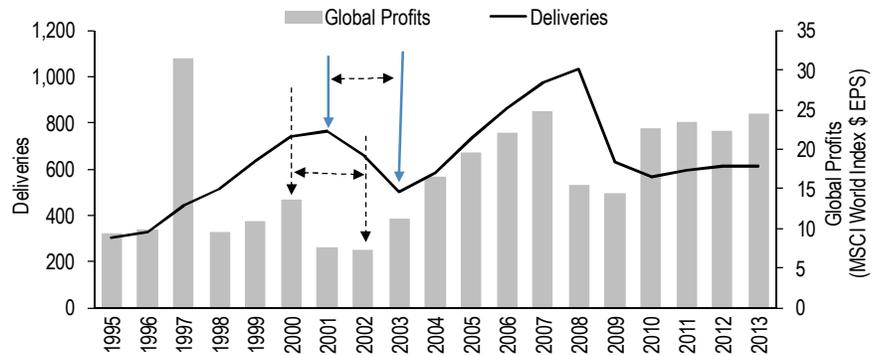
Business jet deliveries have yet to pick up following the recession despite a sharp recovery in corporate profits.

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



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

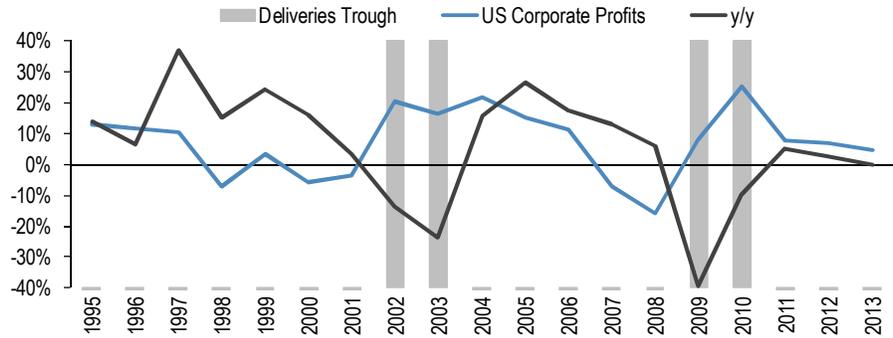
Figure 2: Global Corporate Profits vs. Business Jet Deliveries (# of aircraft), 1995 - 2013



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

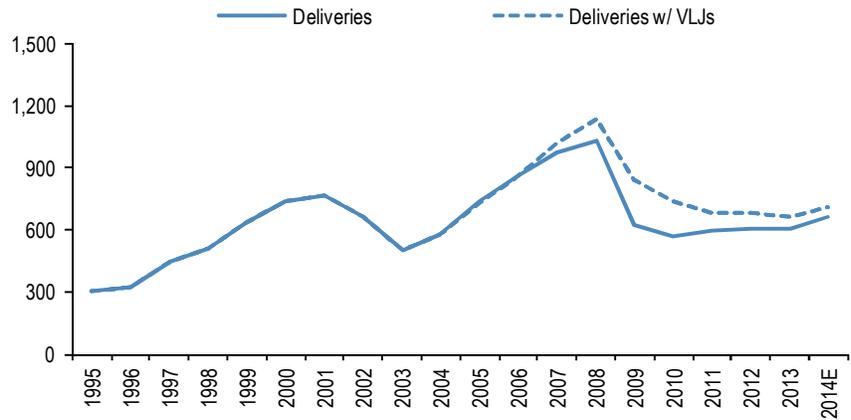
US corporate profits peaked in 2006, and business jet deliveries (excluding VLJs) peaked two years later once again, in 2008. Business jet demand has not recovered with corporate profits this time, however, as we estimate that 2013 US corporate profits will be up ~50% from the 2008 trough, whereas bizjet deliveries have yet to turn up decisively. The stigma attached to bizjets during the recent recession and a focus on cost cutting among corporate customers are two reasons we see demand lagging corporate profit growth.

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



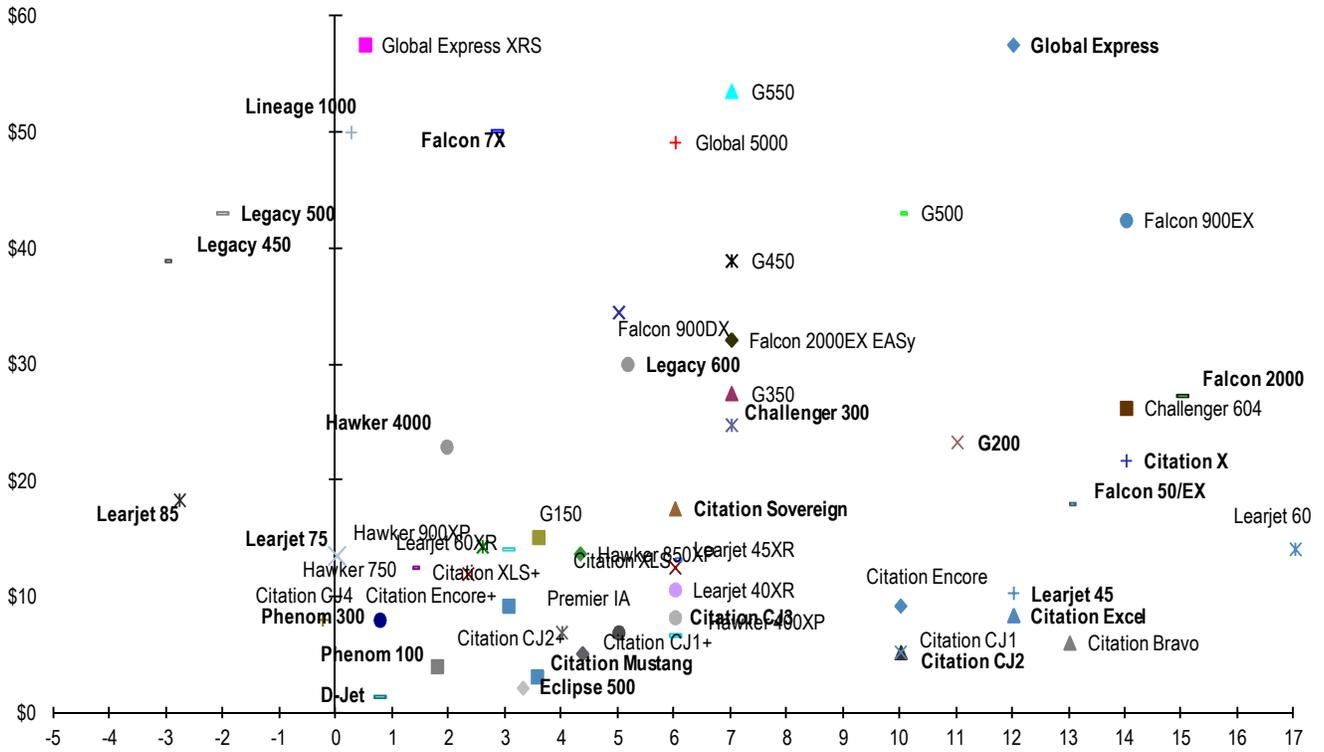
Source: GAMA, BEA, J.P. Morgan estimates.

Figure 4: Impact of VLJs on Total Deliveries, 1995 - 2014E



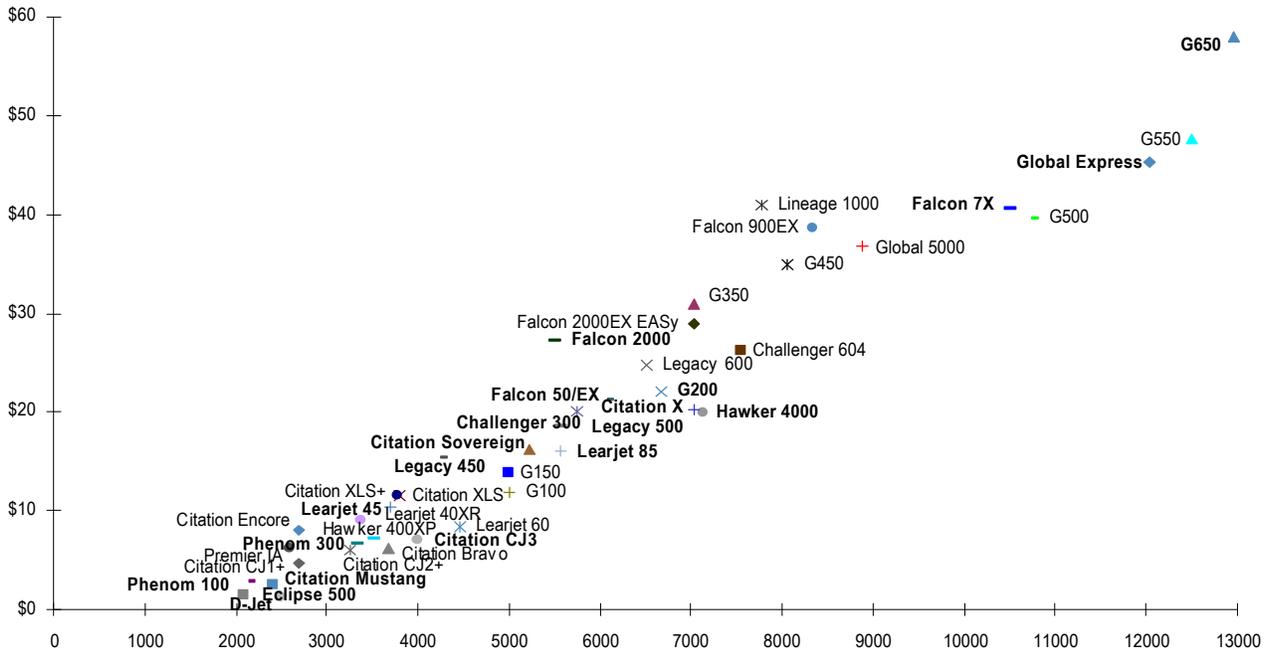
Source: GAMA, Company reports and J.P. Morgan estimates. Very Light Jets, as delineated in Table 1, include Cessna Mustang, Embraer Phenom 100, and HondaJet.

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)



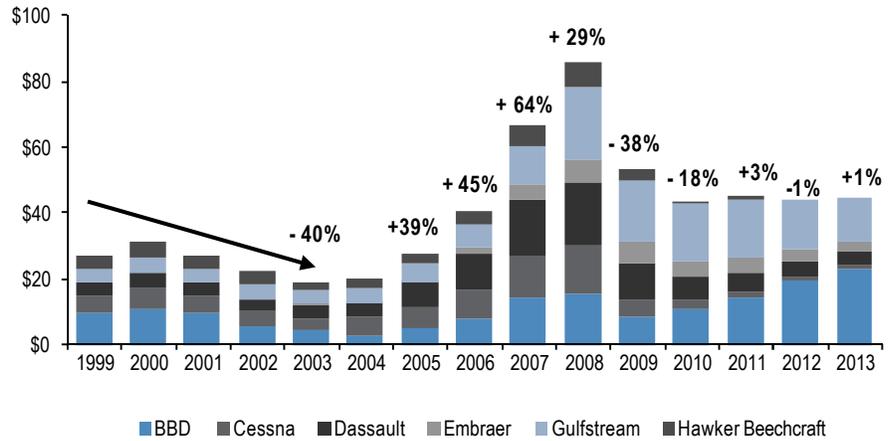
Source: JetNet, J.P. Morgan estimates. Note: **Bold** indicates clean sheet design, non-bold indicates derivative models.

Industry Financial Data

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

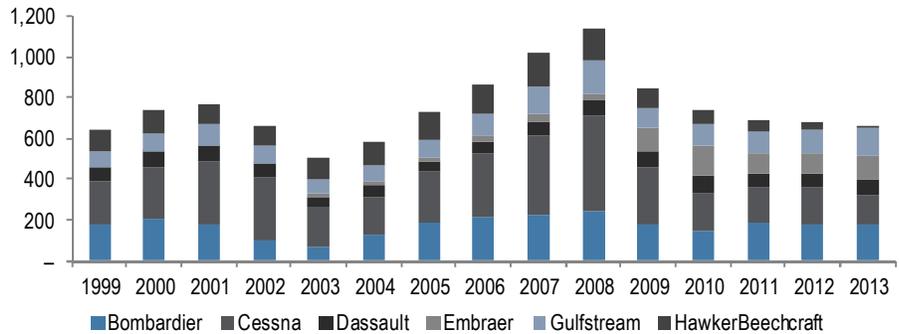
Figure 7: Estimated Industry Backlog by Company, 1999 – 2013

\$ in billions



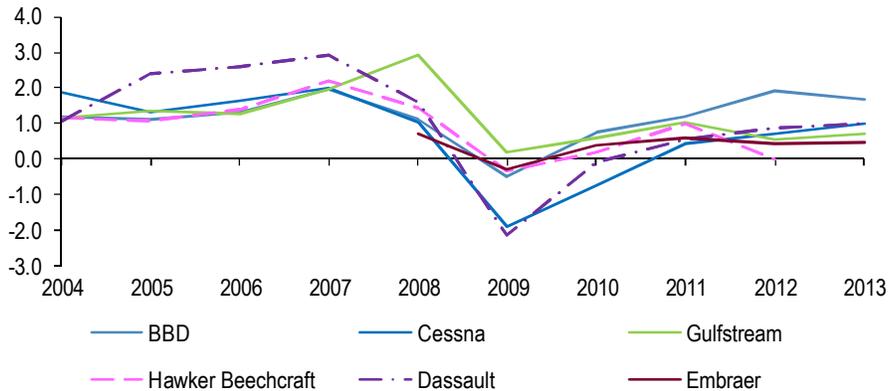
Source: Company data, J.P. Morgan estimates.

Figure 8: Industry Deliveries by Company, 1999 – 2013



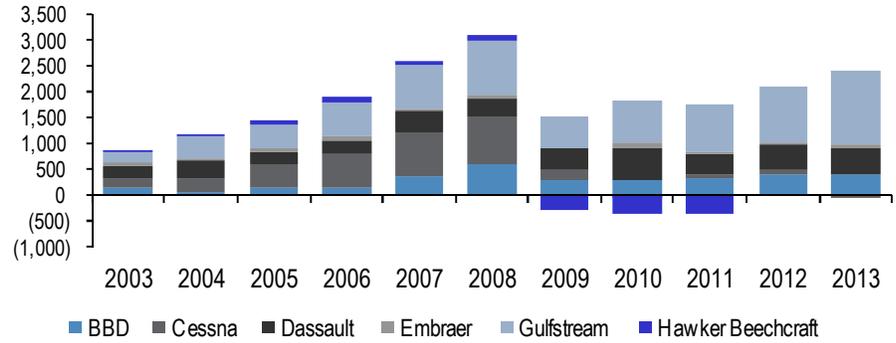
Source: Company data, GAMA.

Figure 9: Estimated Book to Bill Ratio by Company, 2004 – 2013



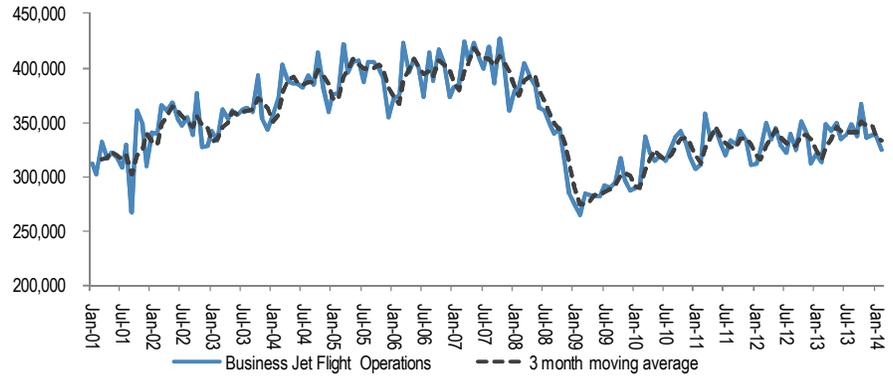
Source: Company data, J.P. Morgan estimates.

Figure 10: Industry EBIT (\$ mn) by Company, 2003 - 2013



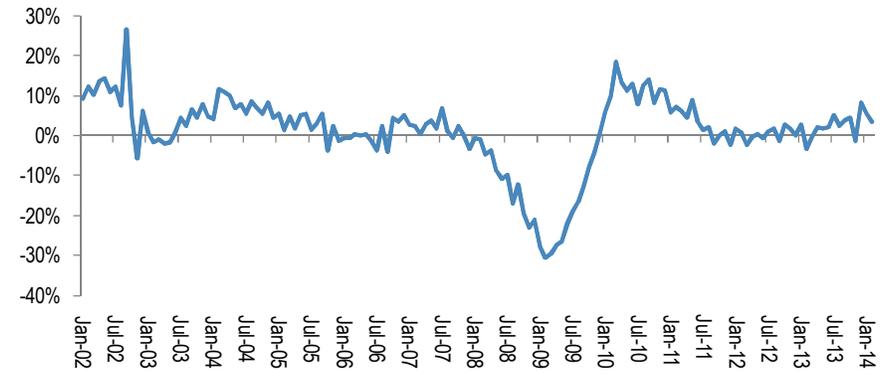
Source: Company data, J.P. Morgan estimates.

Figure 11: Total U.S. Monthly Flight Operations – Business Jets, Jan 01 – Feb 14



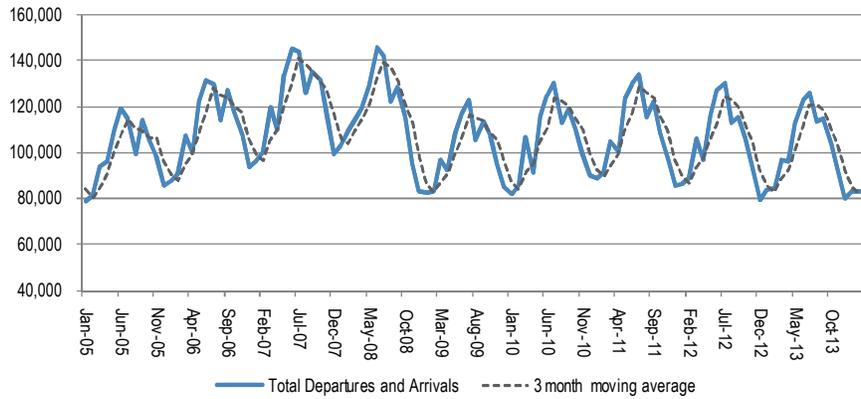
Source: FAA.

Figure 12: Change in Total US Monthly Flight Operations (% y/y) Business Jets, Jan 02 – Feb 14



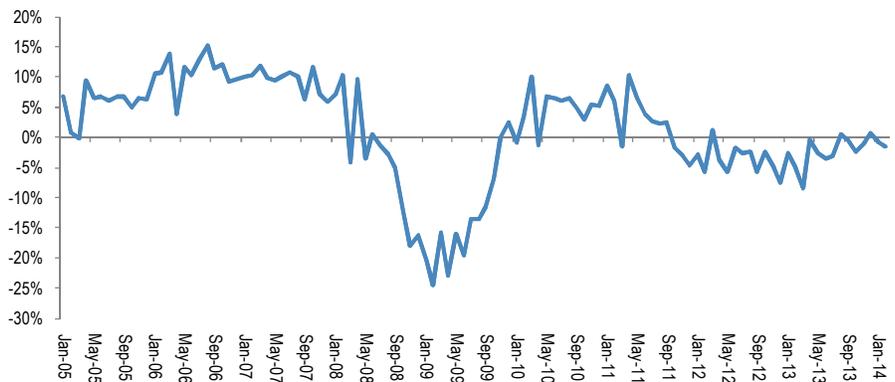
Source: FAA.

Figure 13: Total European Monthly Departures and Arrivals--Business Jets, Jan 05 – Feb 14



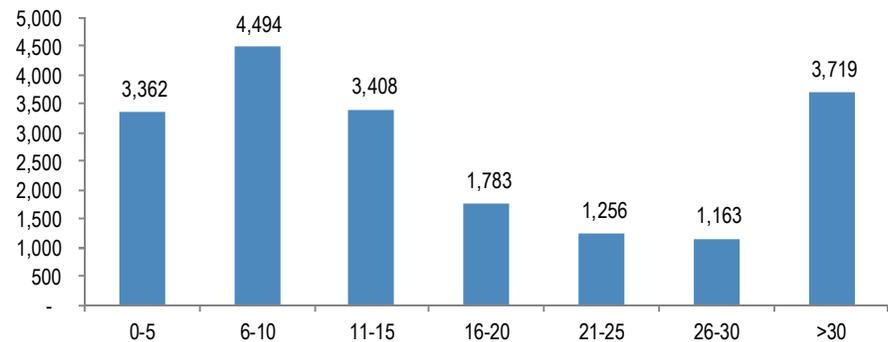
Source: Eurocontrol. Note: The data refers to ESRA08 (Eurocontrol Statistical Reference Area).

Figure 14: Change in Total European Monthly Departures and Arrivals (% y/y), Jan 05 – Feb 14



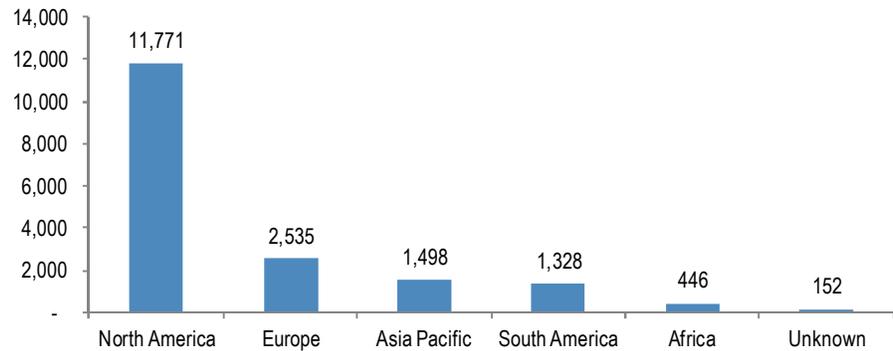
Source: Eurocontrol. Note: The data refers to ESRA08 (Eurocontrol Statistical Reference Area).

Figure 15: Wholly-owned Business Jet Fleet by Age (Years)



Source: JetNet, as of 12/31/2013.

Figure 16: Wholly-owned in-Service Business Jet- Fleet by Geography



Source: JetNet, as of 12/31/2013.

Table 2: Historical Fleet Size

	Total	Heavy Jets	Medium Jets	Light Jets
2005	13,358	2,463	3,126	7,769
2006	14,104	2,687	3,334	8,083
2007	15,057	2,955	3,576	8,526
2008	16,229	3,245	3,890	9,094
2009	17,111	3,551	4,060	9,500
2010	17,869	3,918	4,155	9,796
2011	18,404	4,181	4,235	9,988
2012	18,899	4,452	4,330	10,117
2013	19,485	4,799	4,387	10,299

Source: JetNet.

Table 3: Business Aviation - Market Share of the Installed Base (Global)

Manufacturer	Aircraft	% Share
CITATION	6,421	33%
LEARJET	2,367	12%
GULFSTREAM	2,236	11%
FALCON	2,076	11%
HAWKER	1,795	9%
CHALLENGER	1,422	7%
EMBRAER	717	4%
GLOBAL	529	3%
BEECHJET	371	2%
PREMIER	282	1%
ECLIPSE	265	1%
SABRELINER	253	1%
WESTWIND	227	1%
BOEING	151	<1%
ASTRA	123	<1%
AIRBUS	95	<1%
DIAMOND	59	<1%
JETSTAR	36	<1%
NEXTANT	31	<1%
JET COMMANDER	13	<1%
DORNIER	12	<1%
SYBERJET	4	<1%
Total	19,485	100%

Source: JetNet, as of 12/31/2013.

Quick Reference Specification Table

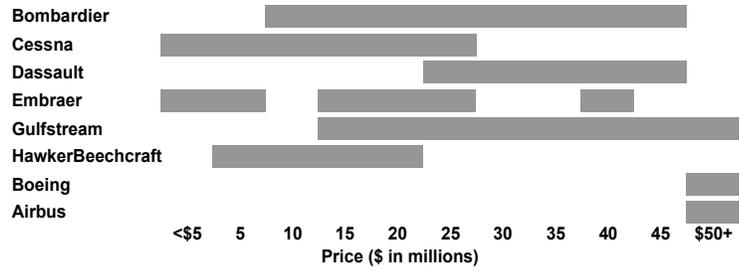
Table 4: Business Jets Quick Reference Guide

Model	Make	Engine	Avionics	Range (km)	Seating	Price (\$M)
D-Jet	Diamond	Williams	Garmin	2,500	2-4	1.4
Mustang	Cessna (Textron)	P&W Canada	Garmin	2,130	5	3.1
Honda Jet*	Honda Corp.	GE-Honda	Garmin	2,593	6	3.7
Phenom 100	Embraer	P&W Canada	Garmin	2,148	4	3.7
Citation M2*	Cessna (Textron)	Williams	Garmin	2,408	6	4.2
Citation CJ1+	Cessna (Textron)	Williams / Rolls-Royce	Rockwell Collins	2,408	5	5.1
Beechjet 400XP	HawkerBeechcraft	P&W Canada	Rockwell Collins	2,898	7	6.7
Citation CJ2+	Cessna (Textron)	Williams / Rolls-Royce	Rockwell Collins	2,987	6	6.9
Premier IA	HawkerBeechcraft	Williams	Rockwell Collins	2,519	6	6.9
Phenom 300	Embraer	P&W Canada	Garmin	3,334	7	8.0
Citation CJ3	Cessna (Textron)	Williams / Rolls-Royce	Rockwell Collins	3,473	8	8.2
Hawker 200*	HawkerBeechcraft	Williams	Rockwell Collins	2,863	4	8.3
Citation CJ4	Cessna (Textron)	Williams	Rockwell Collins	3,380	10	9.0
Citation Encore+	Cessna (Textron)	P&W Canada	Rockwell Collins	3,313	8	9.2
Learjet 40XR	Bombardier	Honeywell	Honeywell	3,348	6	10.6
Learjet 70*	Bombardier	Honeywell	Garmin	3,815	2-8	11.1
Hawker 750	HawkerBeechcraft	Honeywell	Rockwell Collins	4,074	8	11.9
Citation XLS+	Cessna (Textron)	P&W Canada	Rockwell Collins	3,441	11	12.5
Learjet 45XR	Bombardier	Honeywell (Garrett)	Honeywell	3,795	9	13.2
Learjet 75*	Bombardier	Honeywell	Garmin	3,778	2-10	13.5
Hawker 850XP	HawkerBeechcraft	Honeywell	Rockwell Collins	4,893	8	13.7
Learjet 60XR	Bombardier	P&W Canada	Rockwell Collins	4,380	9	14.1
Hawker 900XP	HawkerBeechcraft	Honeywell	Rockwell Collins	5,463	8	14.5
Citation Latitude*	Cessna (Textron)	P&W Canada	Garmin	3,704	8	14.9
G150	Gulfstream (GD)	Honeywell	Rockwell Collins	5,471	8	15.1
Legacy 450*	Embraer	Honeywell	Rockwell Collins	4,260	8	15.3
Learjet 85*	Bombardier	P&W Canada	Rockwell Collins	5,556	9	17.1
Citation Sovereign	Cessna (Textron)	P&W Canada	Garmin/Honeywell	4,934	8	17.6
Falcon 50/EX	Dassault	Honeywell	Rockwell Collins	5,695	10	18.0
Legacy 500*	Embraer	Honeywell	Rockwell Collins	5,556	10	18.4
G200	Gulfstream (GD)	P&W Canada	Rockwell Collins	6,297	10	20.5
Citation X/TEN**	Cessna (Textron)	Rolls-Royce	Honeywell/Garmin	5,686	12	21.7
Hawker 4000	HawkerBeechcraft	Pratt & Whitney	Honeywell	5,941	10	22.9
G280	Gulfstream (GD)	Honeywell	Rockwell Collins	6,297	12	24.0
Challenger 300	Bombardier	Honeywell	Rockwell Collins	5,741	13	24.8
Falcon 2000DX	Dassault	P&W Canada	Honeywell	6,019	19	25.0
Falcon 2000S*	Dassault	P&W Canada	Honeywell	6,204	6	25.0
Legacy 600	Embraer	Rolls-Royce	Honeywell	6,019	13	25.0
Citation Longitude*	Cessna (Textron)	Safran	Garmin	7,408	2-8	26.0
Challenger 605	Bombardier	GE	Rockwell Collins	7,491	12	28.1
Legacy 650	Embraer	Rolls Royce	Honeywell	7,223	13	29.5
Challenger 850	Bombardier	GE	Rockwell Collins	5,130	15	31.2
Falcon 2000LX	Dassault	Honeywell	Honeywell	7,408	19	33.0
Falcon 900DX/EX	Dassault	Honeywell	Honeywell	7,399	19	36.0
G450	Gulfstream (GD)	Rolls-Royce	Honeywell	8,056	16	38.9
Falcon 900LX	Dassault	Honeywell	Honeywell	8,890	19	39.0
ACJ/A318 Elite	Airbus	CFM	Thales	7,408	8-18	47.0
Global 5000	Bombardier	Rolls-Royce	Rockwell Collins	9,630	8-17	49.1
Lineage 1000*	Embraer	GE	Honeywell	7,778	19	50.0
Falcon 7X	Dassault	P&W Canada	Honeywell	11,019	12	50.1
A319 ACJ	Airbus	IAE	Thales	12,038	39	51.0
G550	Gulfstream (GD)	Rolls-Royce	Honeywell	12,501	8	53.5
Global 6000	Bombardier	Rolls-Royce	Rockwell Collins	11,112	10-19	57.5
G650	Gulfstream (GD)	Rolls-Royce	Honeywell/Rockwell Collins	12,964	8	58.5
BBJ1	Boeing	CFM	Rockwell Collins/Honeywell	7,223	19-189	65.0
Global 7000*	Bombardier	General Electric	Rockwell Collins	13,520	10-19	65.0
Global 8000*	Bombardier	General Electric	Rockwell Collins	14,631	8-19	65.0
A320 Prestige ACJ	Airbus	IAE	Thales	5,700	39	75.0
BBJ2	Boeing	CFM	Rockwell Collins/Honeywell	5,667	8-63	75.0
BBJ3	Boeing	CFM	Rockwell Collins/Honeywell	5,926	8-63	90.0

Source: Company reports, Business & Commercial Aviation. Aircraft compare. Note: * represents in development aircraft. Note: Cessna announced the rebranding of Citation TEN to X at NBAA 2012.

Figure 17: Product Pricing Span by Company

\$ in millions



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

Overall Market Trends

Market Share

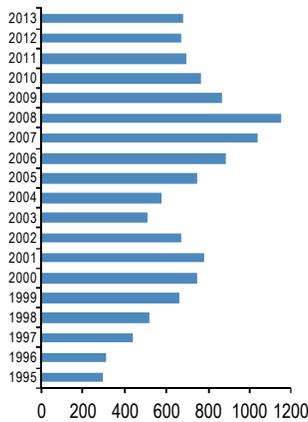
Deliveries were up 6% y/y in Q4

The six major business jet OEMs plus Boeing and Airbus delivered 257 business jets in Q4, up 6% y/y. Q4 deliveries were up at Dassault (+13), Cessna (+9) and Gulfstream (+4) while HawkerBeechcraft (-9) and Boeing (-2) deliveries were down y/y. Bombardier, Embraer and Airbus deliveries remained flat. Hence, Dassault, Cessna and Gulfstream gained market share of 4.5%, 2.2% and 0.7%, respectively, at the expense of HawkerBeechcraft, Bombardier, Embraer, Boeing and Airbus, which lost 3.7%, 1.4%, 1.3%, 0.9% and 0.1% of market share.

Market size by value increased 8% y/y

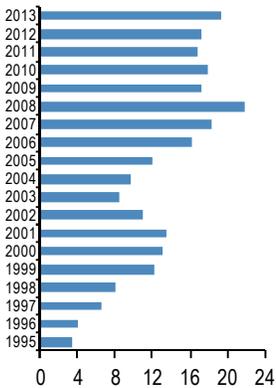
Revenues from shipments increased 8% y/y in Q4 and increased 64% sequentially to \$6.7 bn. On a TTM basis, Dassault, Gulfstream and Cessna gained market share of 250 bps, 100 bps and 10 bps, respectively, at the expense of Bombardier, HawkerBeechcraft, Embraer, Boeing and Airbus, which lost 160 bps, 100 bps, 20 bps, 80 bps and <10 bps of market share.

Market Size - by Volume



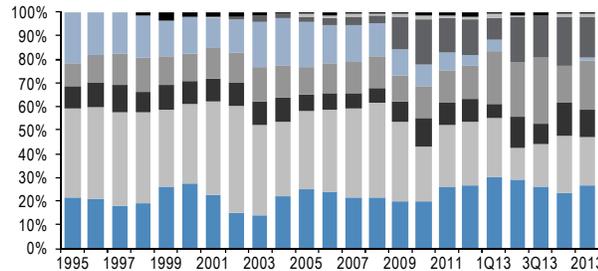
Source: Teal Group, J.P. Morgan estimates.

Market Size - by Value (\$ in bn)



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

Figure 18: Market Share by Volume, 1995 – 2013



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

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

Figure 19: LTM

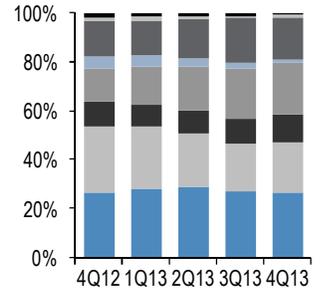
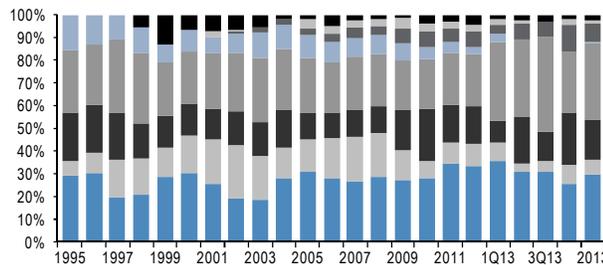


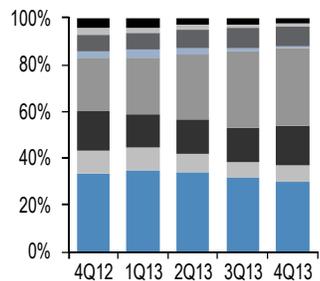
Figure 20: Market Share by Value, 1995 – 2013



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

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

Figure 21: LTM



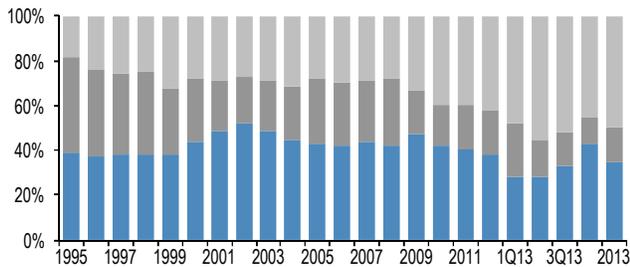
Source: Teal Group, J.P. Morgan est.

2013 deliveries were up 1% y/y, but down 41% from the 2008 peak of 1,154. All six major OEMs plus Airbus and Boeing delivered 678 jets in 2013, up 6 jets y/y. By value, however, shipments were up 13% y/y because of a higher contribution from Heavy jets. Light jets (w/VLJs) and Medium jets lost 360 bps and 370 bps of share by volume, and decreased to 35% and 16% of the market, respectively, while Heavy jets gained 730 bps of share, increasing to 49% of the market. By value, Light and Medium jets lost 210 bps and 290 bps of share, respectively, to the benefit of Heavy jets, which gained 500 bps. Heavy jets have nearly 78% of the market by value, while Medium jets and Light jets contributed 12% and 10%, respectively.

HawkerBeechcraft stopped bizjet production after filing for bankruptcy in 2012 but delivered 6 aircraft in 2013, compared to 32 in 2012, losing 390 bps of market share by volume. Cessna delivered 42 fewer aircraft in 2013 compared to 2012, and lost 640 bps of market share by volume, while Gulfstream delivered 50 additional aircraft and gained 730 bps of market share. Embraer (+20) and Dassault (+11) gained 280 bps and 150 bps of market share, respectively. Among other OEMs, Boeing and Airbus had 5 and 3 fewer deliveries, and lost 80 bps and 50 bps of market share, respectively, while Bombardier lost 10 bps of market share despite delivering an additional aircraft.

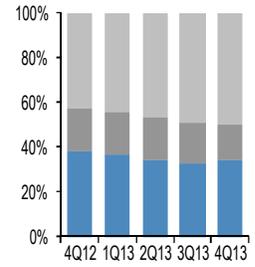
By value, Gulfstream (+1,110 bps), Dassault (+70 bps) and Embraer (+70 bps) gained share at the expense of Cessna (-350 bps), Bombardier (-340 bps), Hawker Beechcraft (-240 bps), Boeing (-100 bps) and Airbus (-80 bps). Gulfstream had the highest market share at 34%, followed by Bombardier (30%), Dassault (17%), Embraer (8%), Cessna (6%), Boeing (2%), Airbus (1%) and Hawker Beechcraft (<1%).

Figure 22: Category by Volume, 1995 – 2013



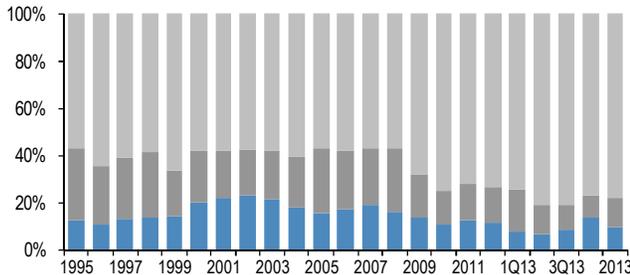
Bottom to Top: Light, Medium, Heavy.
 Source: Teal Group, J.P. Morgan estimates.

Figure 23: LTM



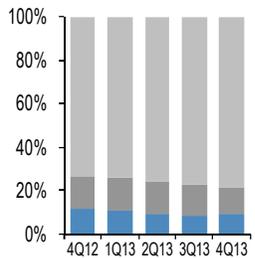
Source: Teal Group, J.P. Morgan est.

Figure 24: Category by Value, 1995 – 2013



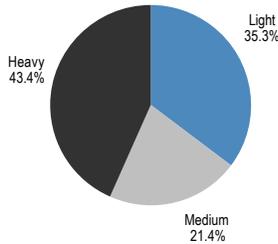
Bottom to Top: Light, Medium, Heavy.
 Source: Teal Group, J.P. Morgan estimates.

Figure 25: LTM



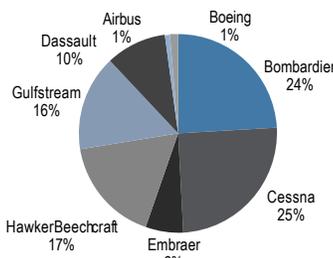
Source: Teal Group, J.P. Morgan est.

Active Fleet in Operation - Breakdown by Class



Source: JetNet. Note: Does not include Hawker Beechcraft, Boeing and Airbus business jets.

Active Fleet in Operation - Breakdown by Manufacturer



Source: JetNet. Note: Includes HawkerBeechcraft and Premier aircraft.

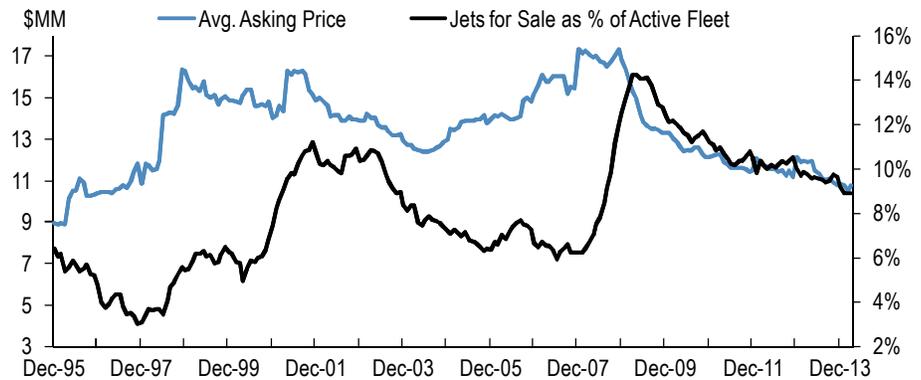
Note: We only consider active platforms in this section (major OEMs) – either clean sheet designs or platforms currently out of production but that have in-production derivatives.

Used Market

Used jet inventory remained flat, while asking prices were up 1.9%

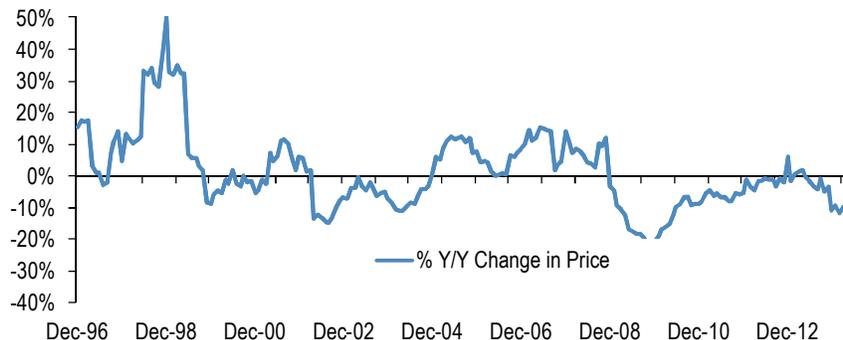
- Used jet inventory, measured by ‘aircraft for sale as % of active fleet,’ remained flat for the second consecutive month at 8.9% in March. Used jet inventory increased for Medium jets (+30 bps) and was offset by a decrease in inventory for Light jets (-10 bps) and Heavy jets (<10 bps). 13 of 23 tracked models witnessed inventory decreases, while 10 witnessed increases.
- Average asking price increased 1.9% in March to \$10.75 mn and is down 10% y/y. Average asking price has declined in 25 of the past 38 months and is down 38% from the Nov-08 peak. Price increases for Heavy (+2.0%) and Light jets (+0.9%) were partially offset by a decrease for Medium jets (-0.8%). 13 of 23 tracked models witnessed increases in price, while 9 models witnessed increases, and one remained flat.
- Inventory was flat while used jet pricing perked up 1.9% in Mar, primarily driven by Heavy jets. G500/G550/V (+15.7%), Challenger 800 series (+12.7%) and Falcon 7X (+7.4%) all contributed disproportionately to the price increase but Light jets continued to improve as well, with prices up 4.6% from Sep'13; all Light jets, except Citation CJ4 and Phenom 300, witnessed increases in price in Mar. Estimated “toddler and pre-K” inventory (0-5 year old aircraft for sale) increased 30 bps to 5.8%, but is 190 bps down y/y.

Figure 26: Average Asking Price and % of Active Fleet for Sale



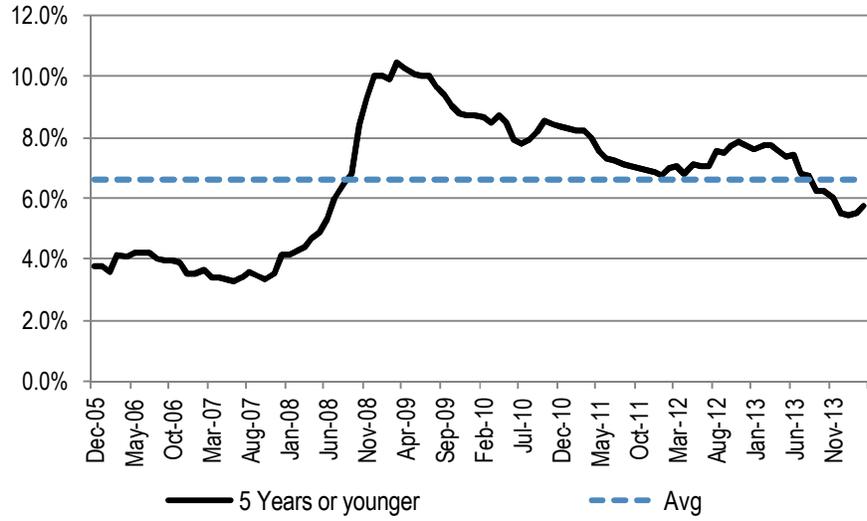
Source: JetNet, J.P. Morgan estimates.

Figure 27: % Change in Average Asking Price



Source: JetNet, J.P. Morgan estimates.

Figure 28: Estimated % of Active 0-5 Year Old Fleet Available for Sale, Dec 05 – Mar 14



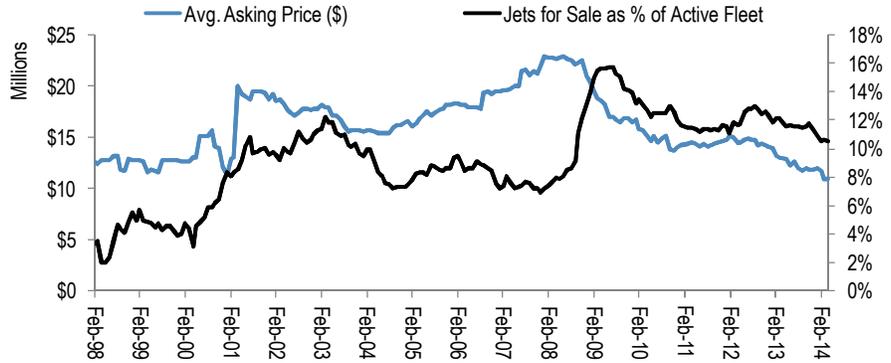
Source: JetNet, and J.P. Morgan.

Used Market by Company

Embraer witnessed favorable conditions in March

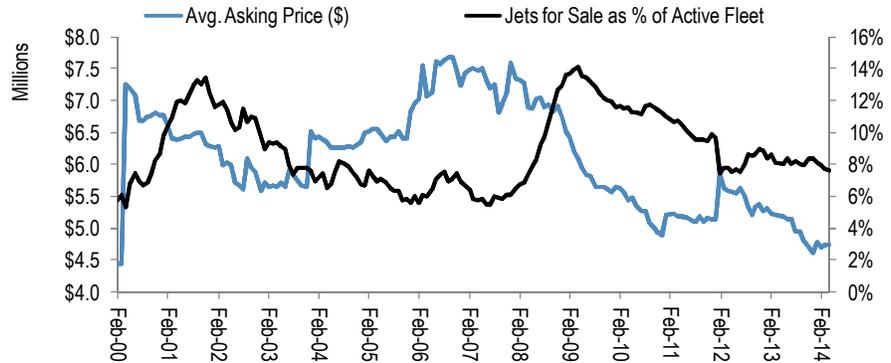
- March saw decreases in inventory across Embraer (-80 bps), Cessna (-20 bps) and Bombardier (<10 bps) while Dassault (<10 bps) and Gulfstream (<10 bps) inventory increased. Bombardier inventory remains highest at 10.6%, followed by Dassault (9.0%), Gulfstream (8.9%) and Embraer (8.1%). Cessna inventory remained the lowest at 7.6%.
- Average asking price increased 1.9% in March. Average asking price increased for Gulfstream (+7.0%), Dassault (+2.2%) and Embraer (+0.3%) while it decreased for Bombardier (-0.6%). Cessna prices remained flat in March.

Figure 29: Bombardier



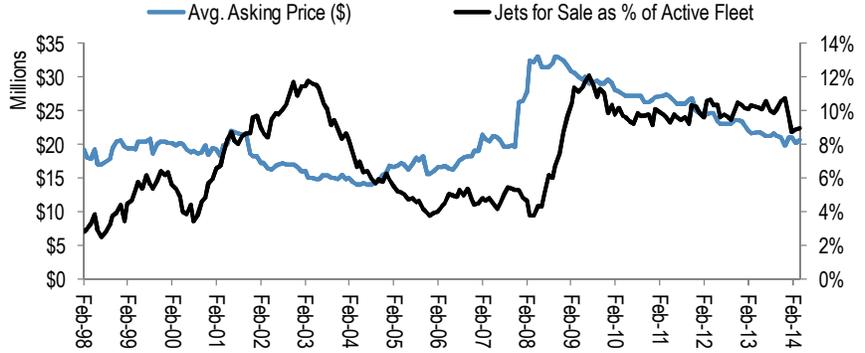
Source: JetNet and J.P. Morgan estimates.

Figure 30: Cessna



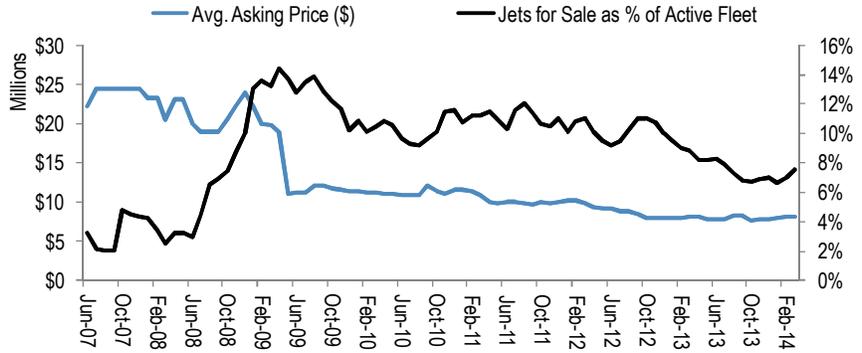
Source: JetNet and J.P. Morgan estimates.

Figure 31: Dassault



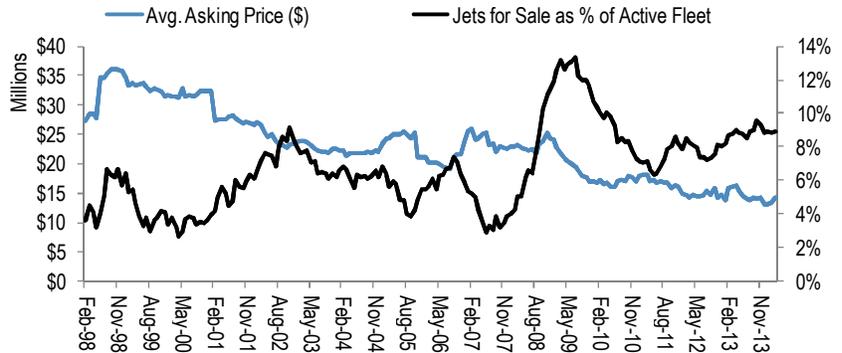
Source: JetNet and J.P. Morgan estimates.

Figure 32: Embraer



Source: JetNet and J.P. Morgan estimates.

Figure 33: Gulfstream



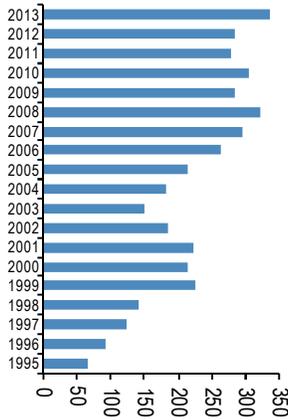
Source: JetNet and J.P. Morgan estimates.

Heavy Jets

Market Share Trends

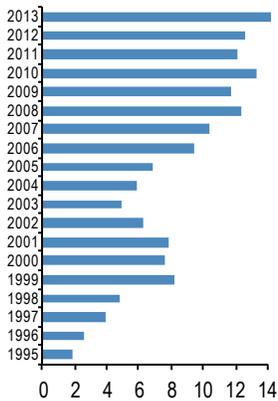
- **Deliveries were up 11% y/y.** 4Q13 Heavy jet deliveries increased 11% y/y to 117 aircraft compared to 105 in 4Q12, and increased by 45 sequentially. Dassault and Gulfstream saw y/y delivery increases of 13 and 3, respectively, while Boeing, Bombardier and Embraer deliveries were down by 2, 1 and 1 respectively. Airbus deliveries were flat y/y.
- By volume, on a TTM basis Dassault gained market share of 320 bps, at the expense of Bombardier (-140 bps), Embraer (-60 bps), Gulfstream (-40 bps) Boeing (-70 bps) and Airbus (-10 bps). Gulfstream accounts for 36% of the market, while Bombardier, Dassault, and Embraer account for 29%, 23%, and 8%, respectively. Airbus and Boeing market shares were 2% and 2%, respectively. Cessna does not participate in the Heavy jet market.
- Similarly, by value, Dassault (+300 bps) and Gulfstream (+60 bps) gained, while Bombardier (-210 bps), Boeing (-100 bps), Embraer (-40 bps) and Airbus (-10 bps) lost market share.

Market Size - by Volume



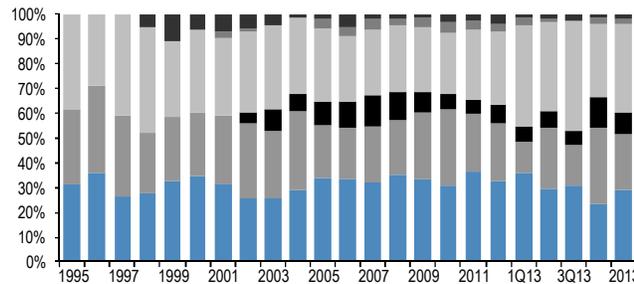
Source: Teal Group, J.P. Morgan estimates.

Market Size - by Value (\$ in bn)



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

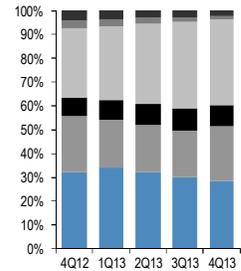
Figure 34: Market Share by Volume, 1995 – 2013



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

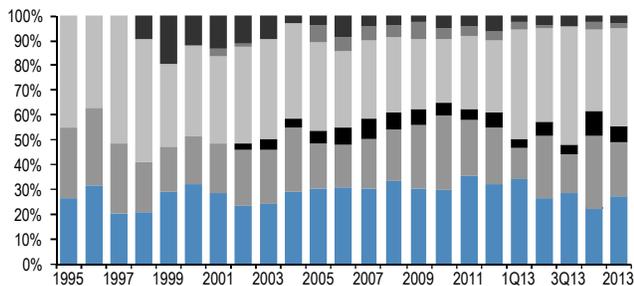
Source: Teal Group, J.P. Morgan estimates.

Figure 35: LTM



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

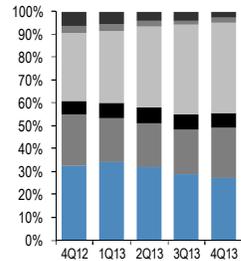
Figure 36: Market Share by Value, 1995 – 2013



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

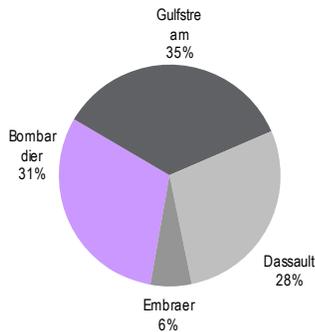
Source: Teal Group, J.P. Morgan estimates.

Figure 37: LTM



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

Active Fleet in Operation - Breakdown by Manufacturer



Source: JetNet. Note: Does not include Airbus, Boeing and Hawker Beechcraft business jets

Used Market Trends

Used jet inventories decreased marginally while asking prices increased 3.0%

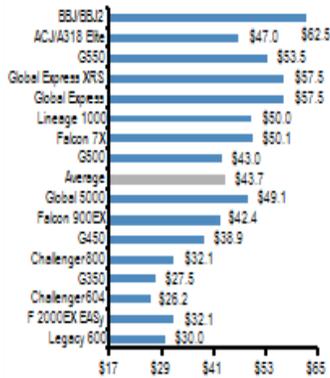
- Used jet inventory, measured by ‘aircraft for sale as % of active fleet,’ decreased marginally to 9.2% in March, after a 20 bp increase in Feb. Heavy jet inventory is 350 bps off the Jul-09 peak of 12.7%. Inventory decreased across the following platforms: Challenger 800 (-160 bps), G300/350/400 (-90 bps), Legacy 600/650 (-80 bps), Global 5000/Express (-30 bps), Falcon 900 series (-20 bps) and Falcon 2000/EX (-20 bps). Falcon 7X (+130 bps), G500/550/V (+110 bps) and Challenger 600 series (+40 bps) inventory increased.
- Average asking price increased 3.0% to \$18.0 mn in March, while on a y/y basis, prices were down 10.3%. Average asking price increased for G500/550/V (+15.7%), Challenger 800 (+12.7%), Falcon 7X (+7.4%), Challenger 600 series (+4.8%) and Legacy 600 (+0.3%), while it decreased for Global 5000/Express (-8.7%), Falcon 900 (-6.8%), Falcon 2000/EX (-5.2%) and G300/350/400 (-0.7%).
- Favorable: Challenger 800 and Legacy 600 series.
- Mixed: G300/350/400, Global 5000/Express, Falcon 900 and Falcon 2000/EX witnessed decreasing prices and inventory, while G500/550/V, Falcon 7X and Challenger 600 series witnessed increasing prices and inventory.
- Unfavorable: None.

Figure 38: Average Asking Price and % of Active Fleet for Sale



Source: JetNet, J.P. Morgan estimates.

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.

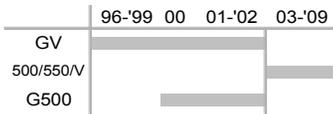
Figure 39: % Change in Average Asking Price



Source: JetNet, J.P. Morgan estimates.

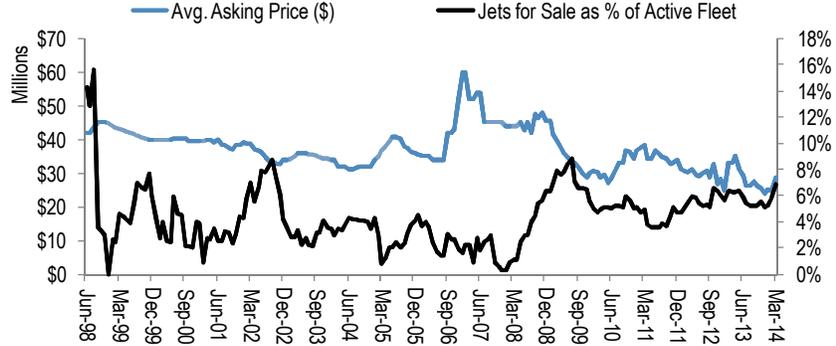
Model Specs & Product History

Model	G500/ G550
Manufacturer	Gulfstream (GD)
Engine	Rolls-Royce
Avionics	Honeywell
Range	10740/ 12501 km
Passengers	14-19
List price	\$43 M / \$53.5 M



G500/G550/V

Figure 40



Source: JetNet, J.P. Morgan estimates.

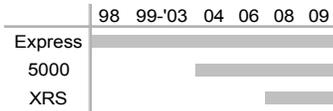
Global 5000/Express/Express XRS

Figure 41



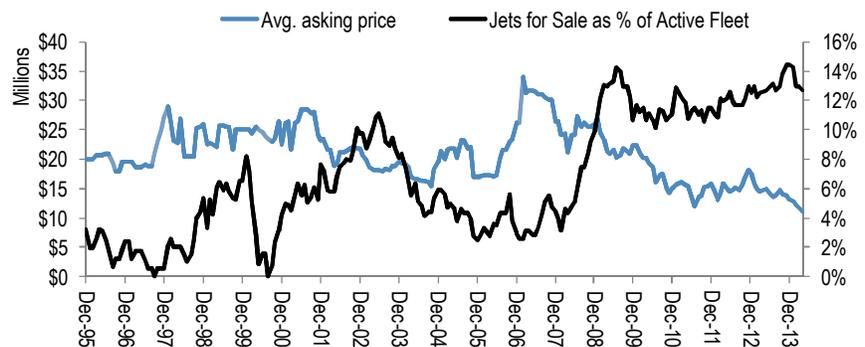
Source: JetNet, J.P. Morgan estimates.

Model	Global 5000/ 6000 (Expi)
Manufacturer	Bombardier
Engine	Rolls-Royce
Avionics	Honeywell
Range	9630/ 11390 km
Passengers	8-16/ 10-19
List price	\$49.1 M / \$57.5 M



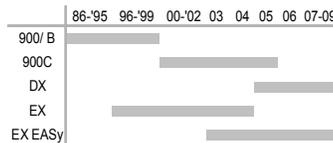
Falcon 900/900B/900C/900DX/900EX

Figure 42



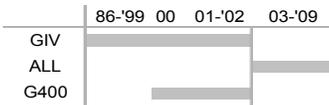
Source: JetNet, J.P. Morgan estimates.

Model	Falcon 900DX/EX
Manufacturer	Dassault
Engine	Honeywell
Avionics	Honeywell
Range	7399 km
Passengers	8-19
List price	\$42.4 M



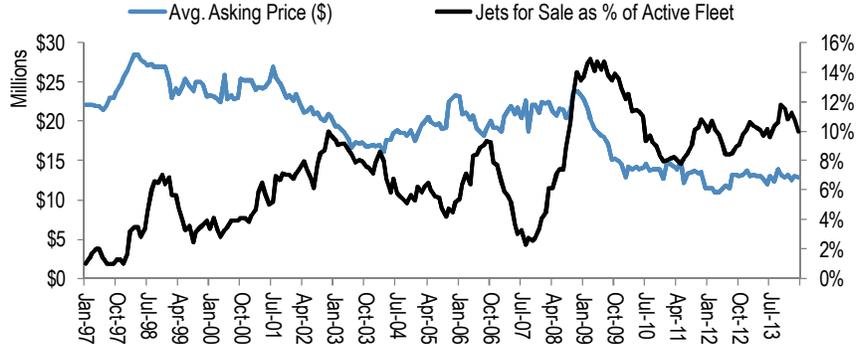
Model Specs & Product History

Model	G350/ G450
Manufacturer	Gulfstream (GD)
Engine	Rolls-Royce
Avionics	Honeywell
Range	7038/ 8055 km
Passengers	12-16
List price	\$27.5 M / \$38.9 M



G300/G350/G400/G450/IV/IVSP

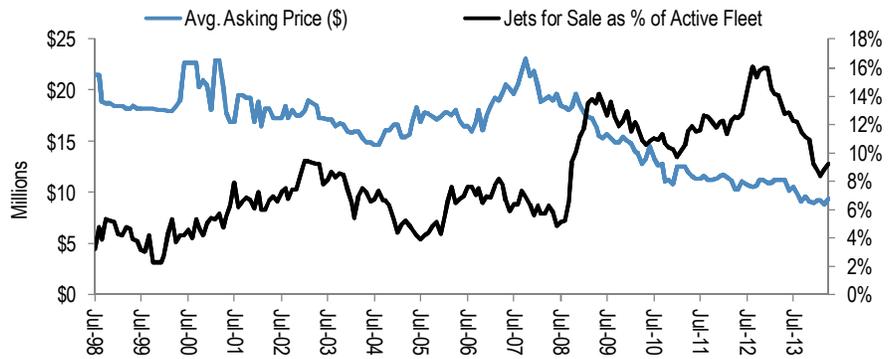
Figure 43



Source: JetNet, J.P. Morgan estimates.

Challenger 601-3R/604/605

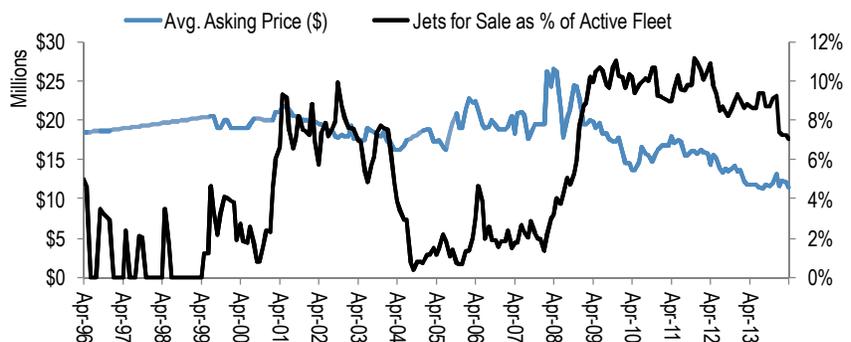
Figure 44



Source: JetNet, J.P. Morgan estimates.

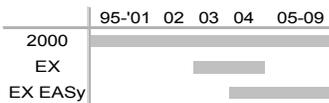
Falcon 2000/2000EX/2000DX/2000LX

Figure 45



Source: JetNet, J.P. Morgan estimates.

Model	Falcon 2000DX/EX
Manufacturer	Dassault
Engine	P&W Canada
Avionics	Honeywell
Range	7037 km
Passengers	8-19
List price	\$32.1 M



Model Specs & Product History

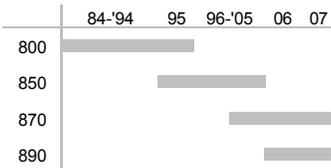
Model	Legacy 600
Manufacturer	Embraer
Engine	Rolls-Royce
Avionics	Honeywell
Range	6504 km
Passengers	13
List price	\$30 M



Model	Falcon 7X
Manufacturer	Dassault
Engine	P&W Canada
Avionics	Honeywell
Range	11019 km
Passengers	12-19
List price	\$50.1 M

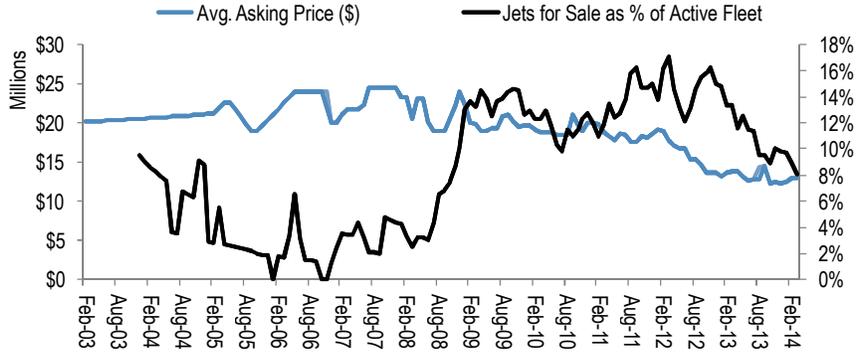


Model	Challenger 850
Manufacturer	Bombardier
Engine	General Electric
Avionics	Rockwell Collins
Range	5206 km
Passengers	14
List price	\$31.2 mn



Legacy 600/650/Shuttle

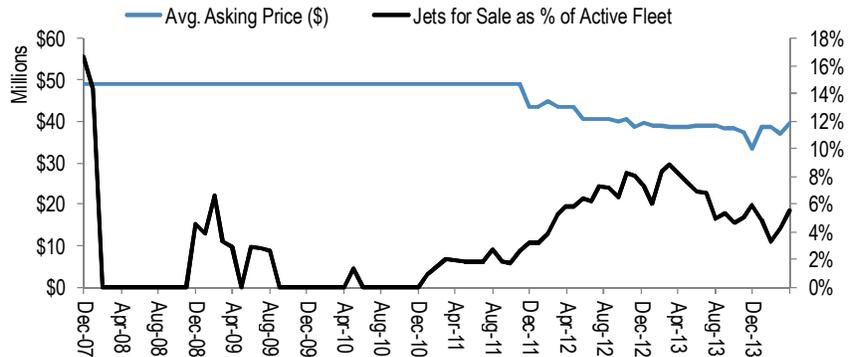
Figure 46



Source: JetNet, J.P. Morgan estimates.

Falcon 7X

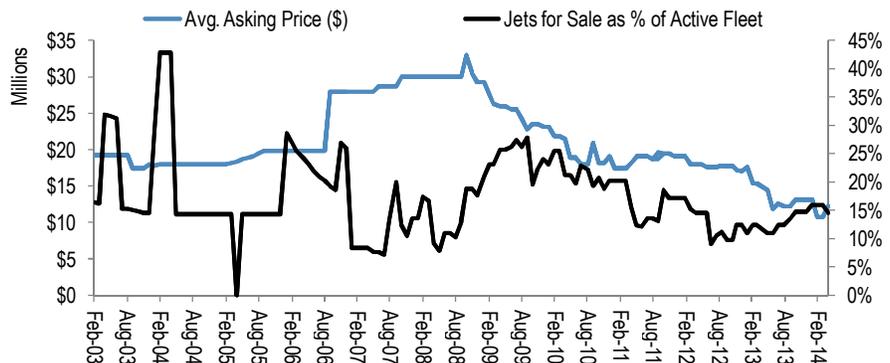
Figure 47



Source: JetNet, J.P. Morgan estimates.

Challenger 800/850/870/890 series

Figure 48



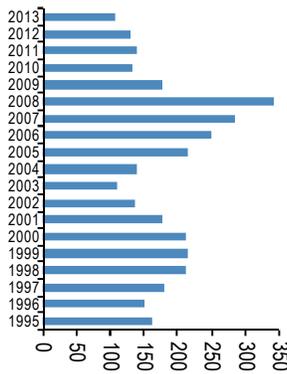
Source: JetNet, J.P. Morgan estimates.

Medium Jets

Market Share Trends

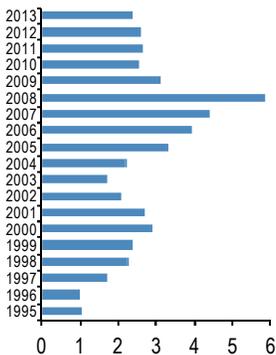
- **Deliveries were down 33% y/y.** Medium jet deliveries decreased by 15 units from 45 in 4Q12 to 30 in 4Q13 but were 10 units higher sequentially. Increases for G200/280 (+5) were offset by decreases for Learjet 60XR (-6), G100/150 (-4) and Citation X (-2). Challenger 300 deliveries were flat y/y. Bombardier and Gulfstream delivered 15 and 7 jets, respectively, while Cessna delivered 8 jets in Q4. Hawker Beechcraft delivered none in Q4, compared to 9 in 4Q12. Dassault and Embraer do not participate in this segment.
- On a trailing four quarter basis, by volume, Gulfstream (+350 bps), Bombardier (+250 bps) and Cessna (+70 bps) gained market share at the expense of Hawker Beechcraft (-670 bps).
- By value, Gulfstream (+410 bps) and Bombardier (+270 bps) gained market share at the expense of Hawker Beechcraft (-670 bps) and Cessna (-10 bps).

Market Size - by Volume



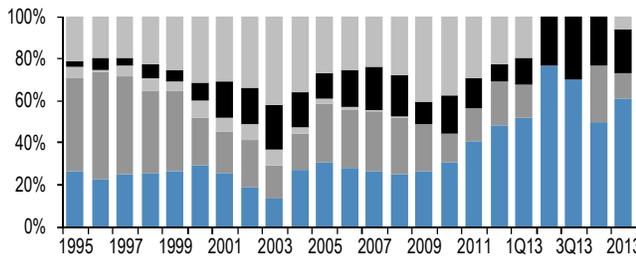
Source: Teal Group, J.P. Morgan estimates.

Market Size - by Value (\$ in bn)



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

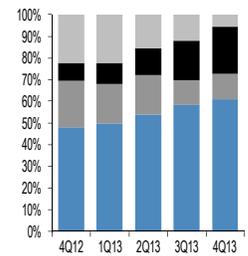
Figure 49: Market share by Volume, 1995 – 2013



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

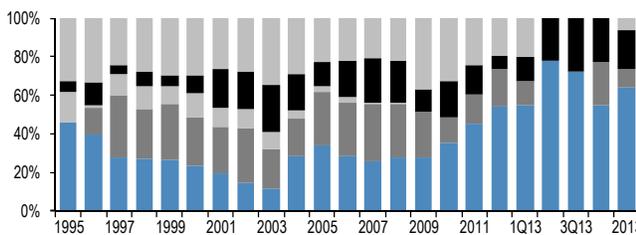
Source: Teal Group, J.P. Morgan estimates.

Figure 50: LTM



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

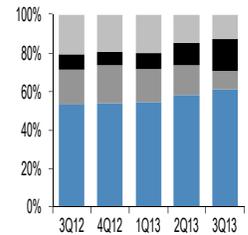
Figure 51: Market share by Value, 1995 – 2013



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

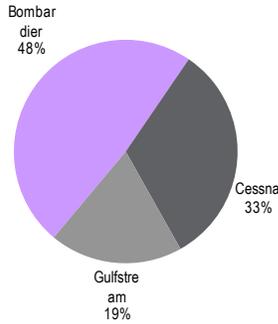
Source: Teal Group, J.P. Morgan estimates.

Figure 52: LTM



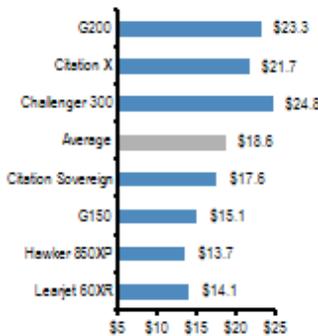
Source: Teal Group, J.P. Morgan est.

Active Fleet in Operation - Breakdown by Manufacturer



Source: JetNet. Note: Neglects Hawker Beechcraft aircraft.

Product Price Points



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

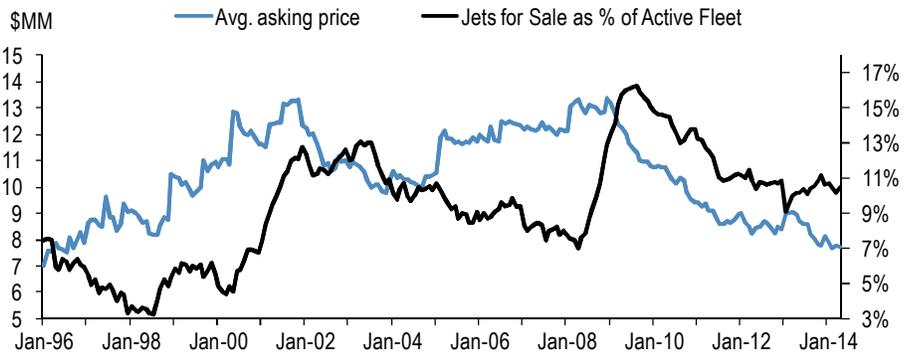
Note: We only consider active platforms in this section (major OEMs) – either clean sheet designs, or platforms currently out of production but that have in-production derivatives.

Used Market Trends

Inventories increased 30 bps while average asking prices decreased 0.8%

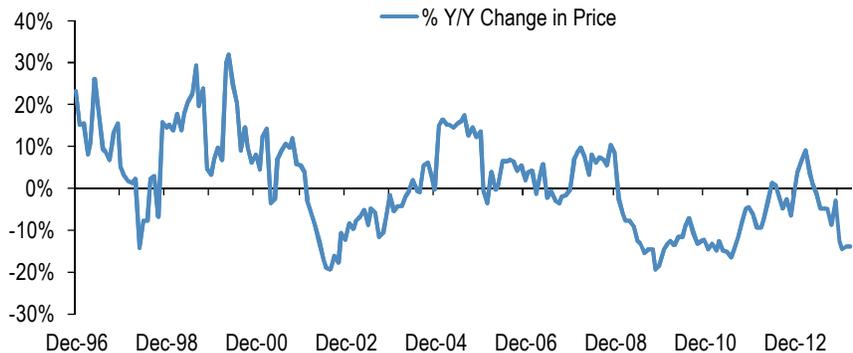
- Used jet inventory, measured by ‘aircraft for sale as % of active fleet,’ increased 30 bps to 10.4% in March, reversing the 30 bp decline in Feb. Medium jet inventory is now 580 bps off the Jul-09 peak of 16.2%. Inventory increased for Challenger 300 (+130 bps), Citation X (+130 bps), G100/150 (+70 bps) and G200/280 (+30 bps), while Learjet 55/60 (-70 bps) and Citation Sovereign (-30 bps) inventory decreased.
- Average asking price for Medium jets decreased 0.8% m/m to \$7.7 mn in March. Average price is down 14.0% y/y and is now 42% off the Nov 2008 peak. Average asking price decreased for Learjet 55/60 (-4.7%), Citation Sovereign (-1.4%), G200/280 (-1.1%) and Citation X (-1.0%), while it increased for G100/150 (+0.8%) and Challenger 300 (+0.1%).
- Favorable: None.
- Mixed: Challenger 300 and G100/150 witnessed increases in both price and inventory, while Learjet 55/60 and Citation Sovereign witnessed decreasing prices and inventory.
- Unfavorable: G200/280 and Citation X.

Figure 53: Average Asking Price and % of Active Fleet for Sale



Source: JetNet, J.P. Morgan estimates.

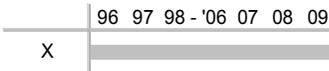
Figure 54: % Change in Average Asking Price



Source: JetNet, J.P. Morgan estimates.

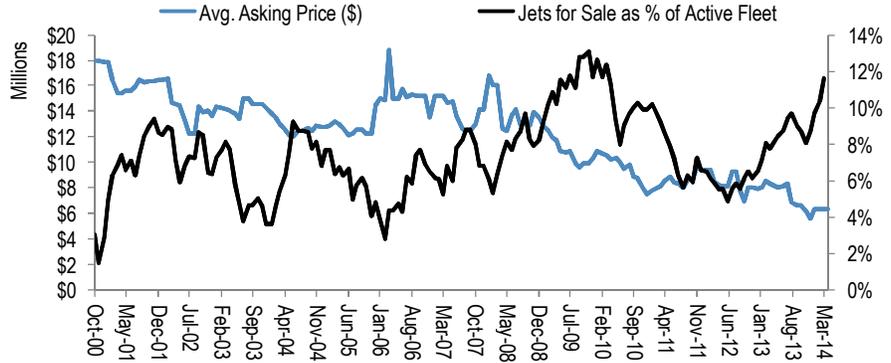
Model Specs & Product History

Model	Citation X
Manufacturer	Cessna (Textron)
Engine	Rolls-Royce (Allison)
Avionics	Honeywell
Range	5686 km
Passengers	8-12
List price	\$21.7 M



Citation X

Figure 55

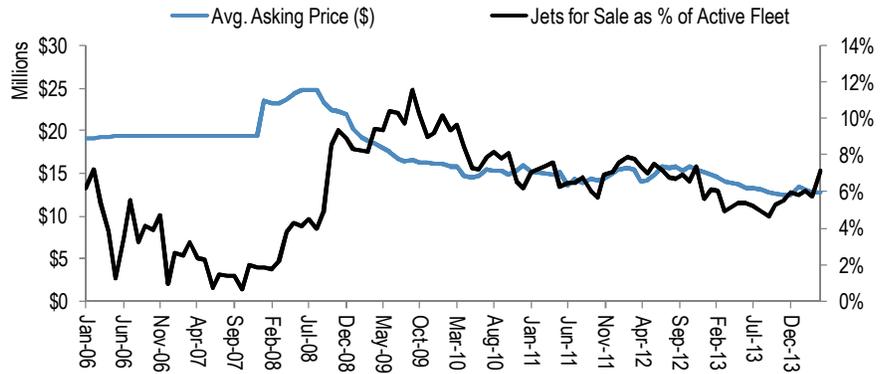
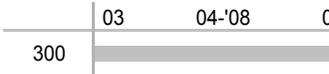


Source: JetNet, J.P. Morgan estimates.

Challenger 300

Figure 56

Model	Challenger 300
Manufacturer	Bombardier
Engine	Honeywell
Avionics	Rockwell Collins
Range	5741 km
Passengers	8-10
List price	\$24.8 M

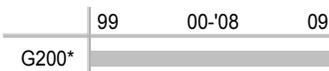


Source: JetNet, J.P. Morgan estimates.

G200/280

Figure 57

Model	G200/G280
Manufacturer	Gulfstream (GD)
Engine	P&W Canada
Avionics	Rockwell Collins
Range	6297 km
Passengers	8-12
List price	\$23.3 M/ \$24 M



*from IAI Galaxy



Source: JetNet, J.P. Morgan estimates.

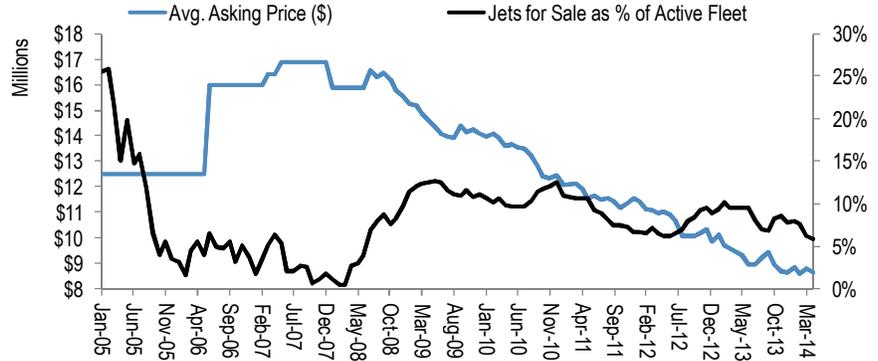
Model Specs & Product History

Model	Citation Sovereign
Manufacturer	Cessna (Textron)
Engine	P&W Canada
Avionics	Honeywell
Range	4934 km
Passengers	6-8
List price	\$17.6 M



Citation Sovereign

Figure 58

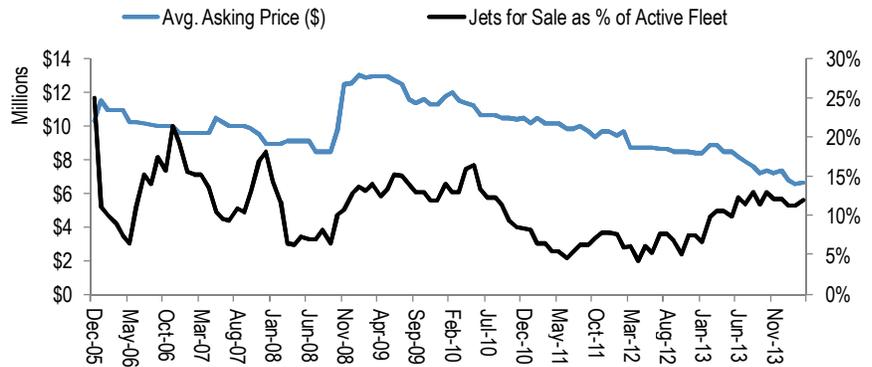


Source: JetNet, J.P. Morgan estimates.

G100/150

Figure 59

Model	G100/ G150
Manufacturer	Gulfstream (GD)
Engine	Honeywell
Avionics	Rockwell Collins
Range	5000 km
Passengers	6-7/ 6-8
List price	\$11.9 M / \$15.1 M

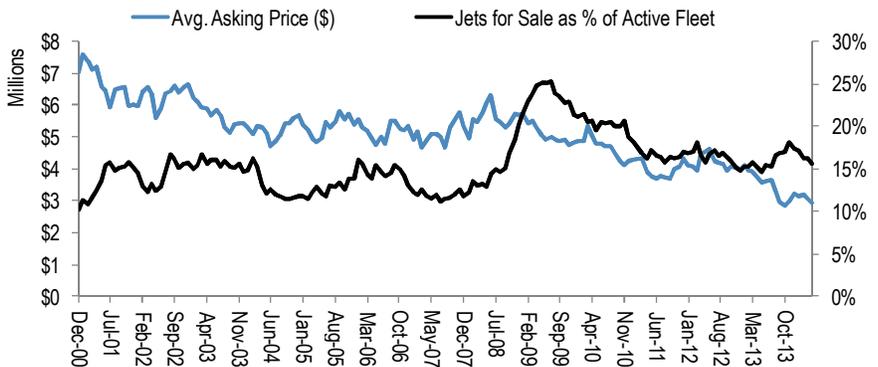
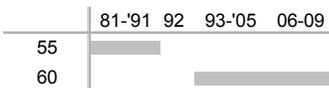


Source: JetNet, J.P. Morgan estimates.

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

Figure 60

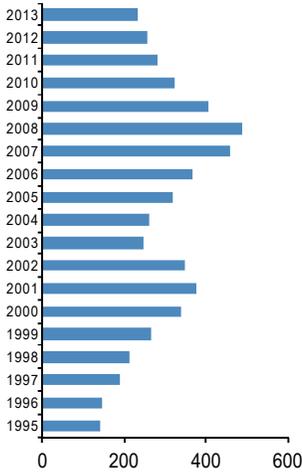
Model	Learjet 60XR
Manufacturer	Bombardier
Engine	P&W Canada
Avionics	Rockwell Collins
Range	4380 km
Passengers	6-9
List price	\$14.1 M



Source: JetNet, J.P. Morgan estimates.

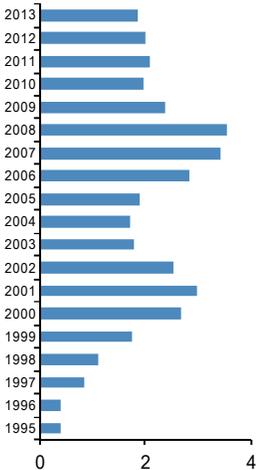
Light Jets

Market Size - by Volume



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

Market Size - by Value (\$ in bn)

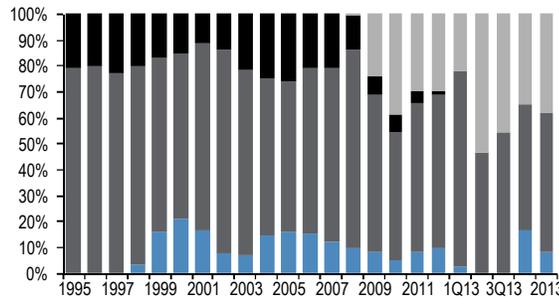


Source: Teal Group, J.P. Morgan estimates, Business & Commercial Aviation.

Market Share Trends

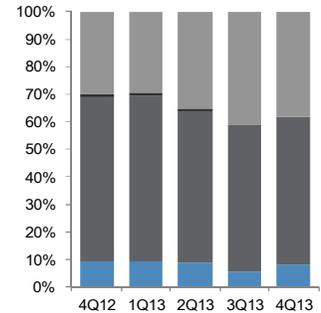
- Deliveries were up 20% y/y.** Light jet deliveries were up 20% to 110 jets in 4Q13 and compared to 92 in 4Q12 and doubled sequentially. Q4 witnessed two jets entering service; Bombardier delivered 18 Learjet 75s this quarter, while Cessna delivered 12 Citation M2s. Embraer and Cessna delivered 38 and 54 jets respectively, compared to 37 and 44 in 4Q12. Embraer delivered 8 Phenom 100s and 30 Phenom 300s in 4Q13 vs. 13 Phenom 100s and 24 Phenom 300s in 4Q12. Bombardier delivered 18 Learjet 75s in 4Q13, up from 11 Learjet 40/45s in 4Q12. Dassault and Gulfstream do not participate in this segment.
- On a TTM basis by volume, Bombardier (+250 bps) and Cessna (+20 bps) gained market share in Q4, while Embraer lost market share of 270 bps. Similarly, by value, Bombardier gained 380 bps of market share, at the expense of Embraer (-220 bps) and Cessna (-160 bps).

Figure 61: Market share by Volume, 1995 –2013



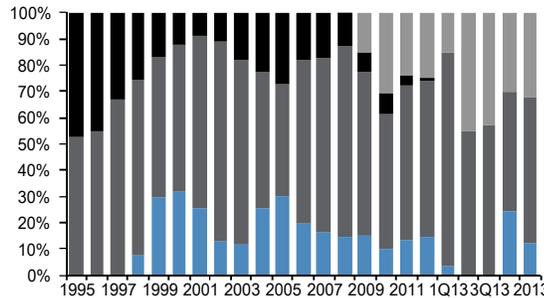
Bottom to Top : Bombardier, Cessna, Hawker Beechcraft, and Embraer
 Source: Teal Group, J.P. Morgan estimates.

Figure 62: LTM



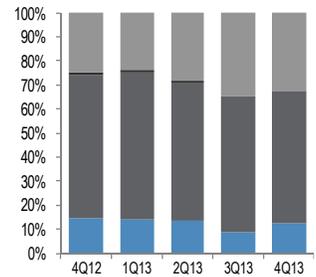
Source: Teal Group, J.P. Morgan est.

Figure 63: Market share by Value, 1995 –2013



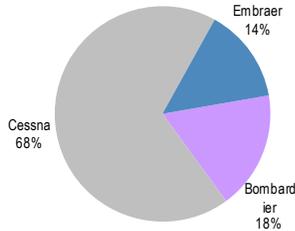
Bottom to Top : Bombardier, Cessna, Hawker Beechcraft, and Embraer
 Source: Teal Group, J.P. Morgan estimates.

Figure 64: LTM



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

Active Fleet in Operation – Breakdown by Manufacturer



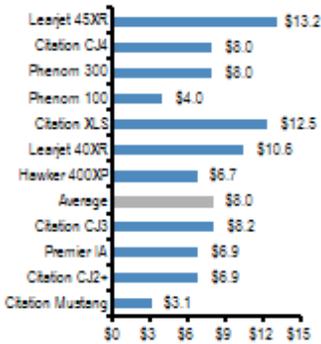
Source: JetNet. Note: Excludes Hawker Beechcraft and Premier aircraft

Used Market Trends

Inventories decreased 10 bps while asking prices increased 0.9%

- Used jet inventory, measured by ‘aircraft for sale as % of active fleet,’ decreased 10 bps to 7.5% in March, after remaining flat in Feb. Light jet inventory is now 700 bps off the Mar-09 peak of 14.5%. Inventory decreased for the following models: Citation Mustang (-110 bps), Learjet 40/45 (-50 bps), Citation Excel/XLS (-20 bps), Citation CJ2/CJ2+ (-20 bps) and Citation CJ4 (<10 bps). Phenom 300 (+160 bps), Phenom 100 (+100 bps) and Citation CJ3 (+20 bps) inventory increased.
- Light jet average asking price increased 0.9% to \$4.9 mn in March and is down 0.1% y/y. Average price has increased in five of the last six months, and is up 4.7% from Sep’13. Average asking price increased for Learjet 40/45 (+3.3%), Citation Mustang (+3.0%), Citation CJ3 (+2.8%), Citation Excel/XLS (+1.8%), Citation CJ2/CJ2+ (+0.3%) and Phenom 100 (+0.3%). Citation CJ4 pricing decreased 1.6%, while Phenom 300 pricing remained flat.
- Favorable: Learjet 40/45, Citation Excel/XLS, Citation CJ2/CJ2+ and Citation Mustang.
- Mixed: Phenom 100 and Citation CJ3 witnessed increases in price and inventory, while Citation CJ4 witnessed decreases in inventory and price.
- Unfavorable: Phenom 300.

Product Price Points



Source: Teal Group, Textron Fact book

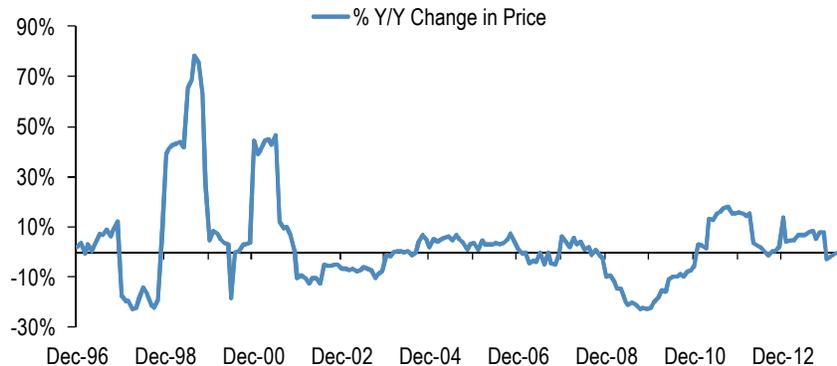
Note: We only consider active platforms in this section (major OEMs) – either clean sheet designs, or platforms currently out of production but that have in-production derivatives.

Figure 65: Average Asking Price and % of Active Fleet for Sale



Source: JetNet, J.P. Morgan estimates.

Figure 66: % Change in Average Asking Price



Source: JetNet, J.P. Morgan estimates.

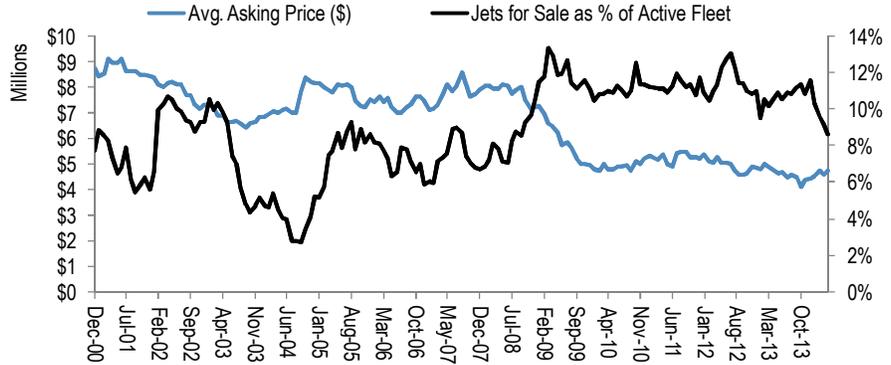
Model Specs & Product History

Model Learjet 40XR/45XR
 Manufacturer Bombardier
 Engine Honeywell (Garrett)
 Avionics Honeywell
 Range 3348-3795 km
 Passengers 6-9
 List price \$10.6 M / \$13.2 M

	98	99-03	04	05	06-09
45	█				
40	█				
40XR	█				
45XR	█				

Learjet 40/40XR/45/45XR/70/75

Figure 67



Source: JetNet, J.P. Morgan estimates.

Citation Excel/XLS/XLS+

Figure 68



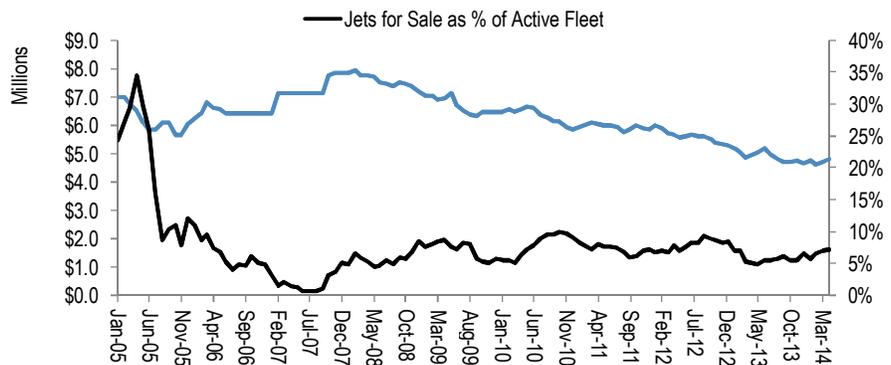
Source: JetNet, J.P. Morgan estimates.

Model Citation XLS+
 Manufacturer Cessna (Textron)
 Engine P&W Canada
 Avionics Honeywell
 Range 3441 km
 Passengers 8
 List price \$12.5 M

	98	99	00-03	04-08	09
Excel	█				
XLS	█				

Citation Jet CJ3

Figure 69



Source: JetNet, J.P. Morgan estimates.

Model Citation CJ3
 Manufacturer Cessna (Textron)
 Engine Williams / Rolls-Royce
 Avionics Rockwell Collins
 Range 3473 km
 Passengers 6
 List price \$8.2 M

	04	06	08	09
CJ3	█			

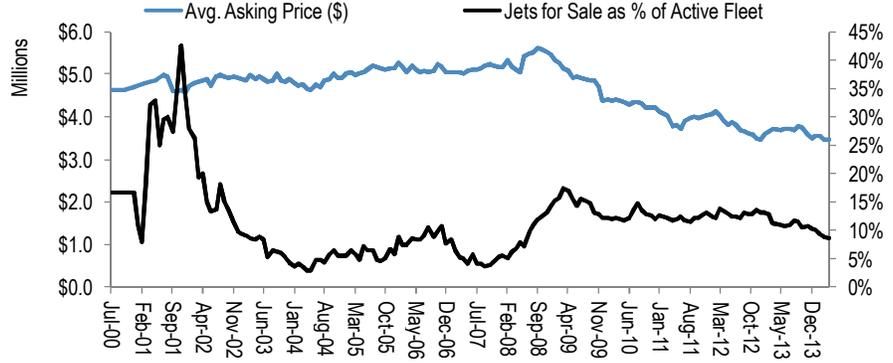
Model Specs & Product History

Model	Citation CJ2+
Manufacturer	Cessna (Textron)
Engine	Williams / Rolls-Royce
Avionics	Rockwell Collins
Range	2987 km
Passengers	5
List price	\$6.9 M

	00	01	02	03-06	07-09
CJ2	[Bar]				
CJ2+				[Bar]	

Citation Jet CJ2/CJ2+

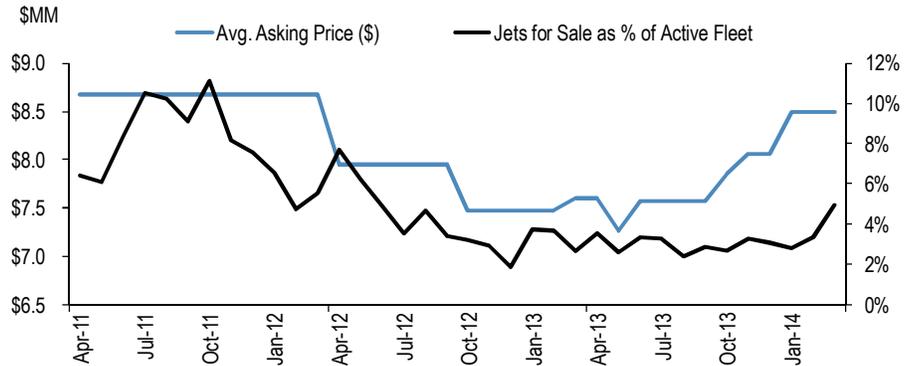
Figure 70



Source: JetNet, J.P. Morgan estimates.

Phenom 300

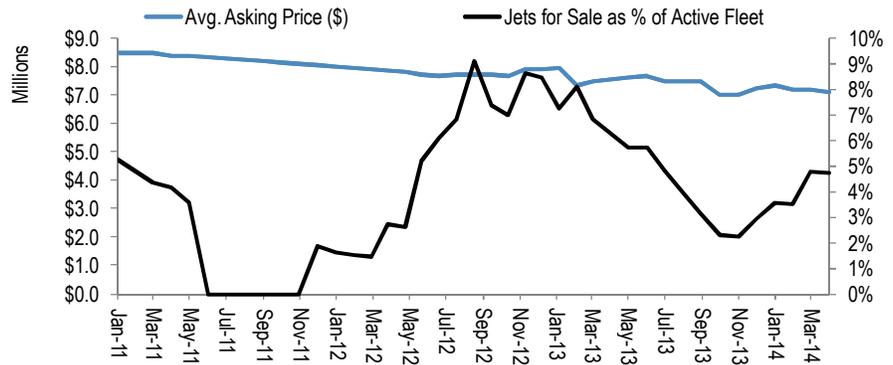
Figure 71



Source: JetNet and J.P. Morgan estimates.

Citation CJ4

Figure 72

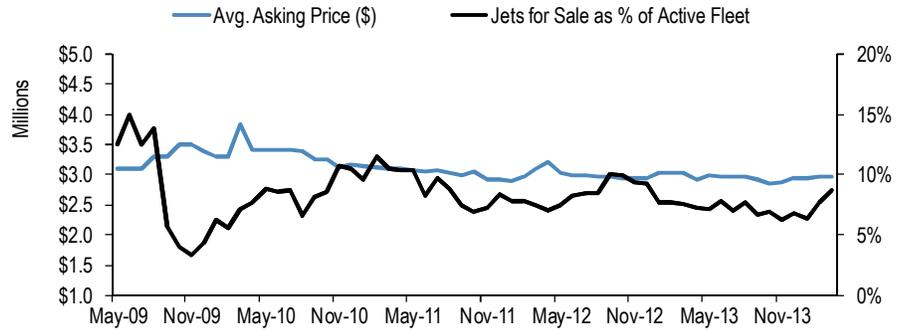


Source: JetNet and J.P. Morgan estimates.

Very Light Jets

Phenom 100

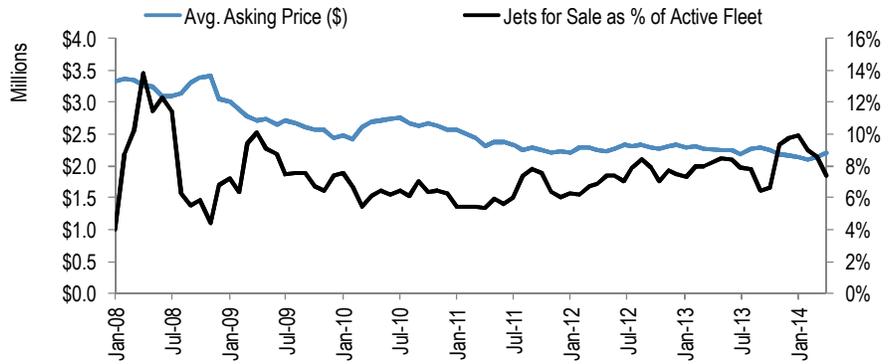
Figure 73



Source: JetNet and J.P. Morgan estimates.

Citation Mustang

Figure 74



Source: JetNet and J.P. Morgan estimates.

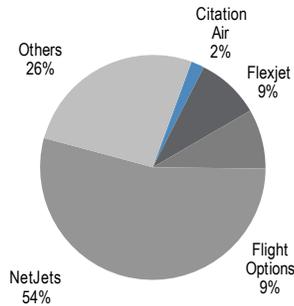
Fractional Jets

Fractional Fleet Trends

Fleet count decreased by two in March

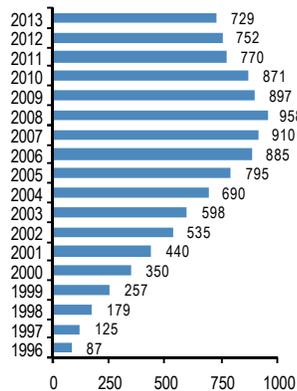
- The total fractional fleet count decreased by two to 724 in March compared to the previous month. The fleet declined by 33 jets or ~4% in 2013, with 10 of 12 months showing declines. The fleet has declined in 45 of the 61 months since Jan-09 when it peaked at 960, or 33% above the present level.
- The three-month rolling average of gross fleet additions, which is delayed by a month, decreased to 5.3 units in February compared to 6.7 units in Jan, with 4.3 units coming from new jets. The difference between the 3-month rolling average of new jet additions and used jet additions remained flat at 3.3 units in February. The historical average of the difference is 4.4, and though the average has been about zero the past two years, it picked up in 2H13.

Fractional Fleet Base - Breakdown by Provider



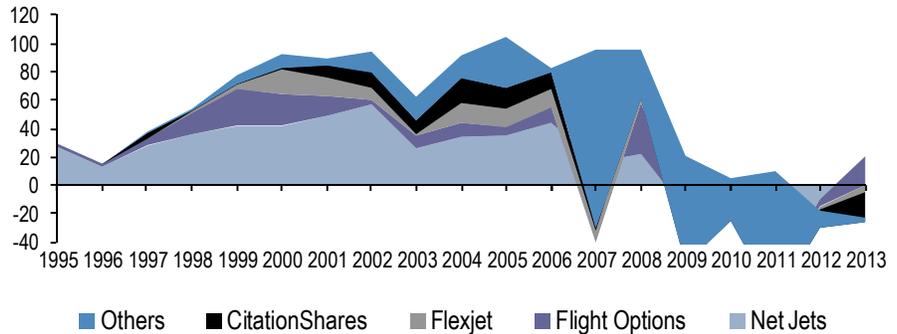
Source: JetNet

Fractional Fleet base



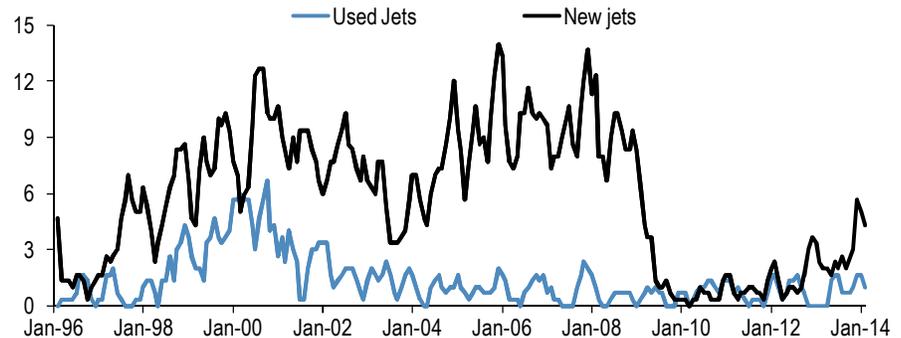
Source: JetNet

Figure 75: Fractional Fleet Additions, by Provider, 1995 – 2013



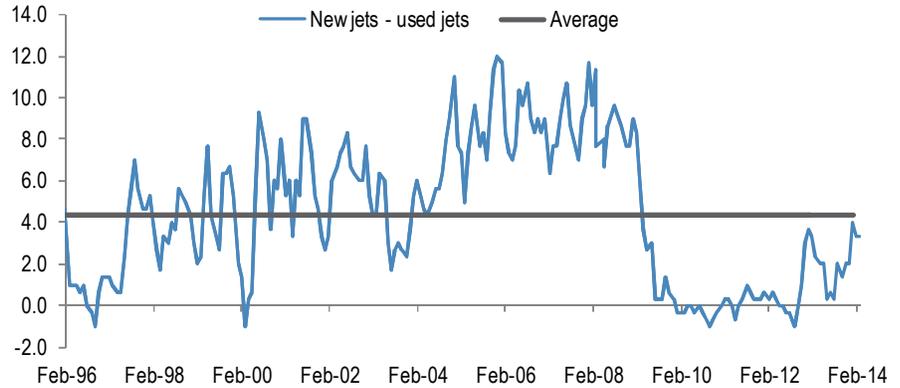
Source: JetNet, J.P. Morgan estimates.

Figure 76: Fractional Fleet Additions, Used and New-3 Month Rolling Average, Jan 96 – Feb 14



Source: JetNet, J.P. Morgan estimates.

Figure 77: Difference b/w 3m rolling average of new and used jet additions, Feb 96 – Feb 14



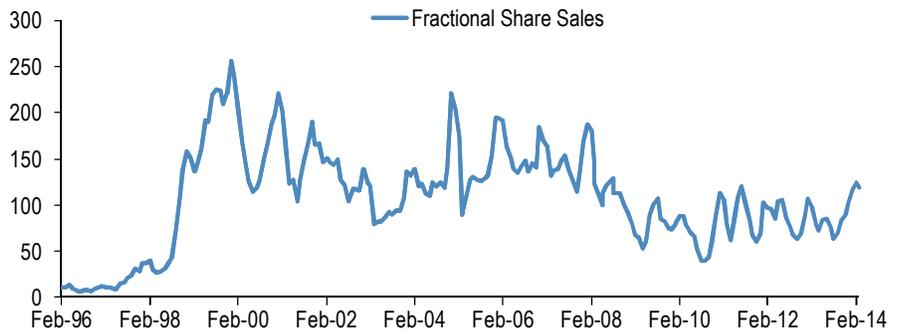
Source: JetNet, J.P. Morgan estimates.

Share Sale Transactions Trend

Rolling three-month average of transactions decreased 4.3% in February

- On an absolute basis, February transactions were up 73% y/y and 17% sequentially.
- On a rolling three-month average basis, transactions decreased by 4.3% y/y to 119 in February. Transactions have declined y/y in 16 of the last 31 months, but are now modestly above the Jun-11 level of 121, which had been the highest level since Jul-08.

Figure 78: Fractional Transactions by Providers - 3m rolling avg., Feb 96 – Feb 14



Source: JetNet, J.P. Morgan estimates.

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