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UBS Investment Research

UBS Business Jet Update

Global Equity Research

Americas

Aerospace

Sector Comment

North America Turns the Corner

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- **Up double digits off bottom**

While the bizjet market has been flat at low levels, our analysis indicates North America is improving with deliveries up double-digits off the bottom. We believe the recovery in North America is being driven by replacement demand postponed during the downturn.

- **Led by low end of market**

The nascent recovery in North America is being led by the low end of the market, small and midsize aircraft. The large cabin market has seen a much smaller decline in North America while benefitting from growth in China//India and Latin America, which haven't really grown for small and midsize.

- **Cessna most levered to North America recovery**

The small and midsize markets are most levered to North America, which still represents 60% of combined small and midsize deliveries as compared to 30% for large. Cessna, with 60-70% of its deliveries and installed base in North America, is the most levered to a recovery in North America bizjets.

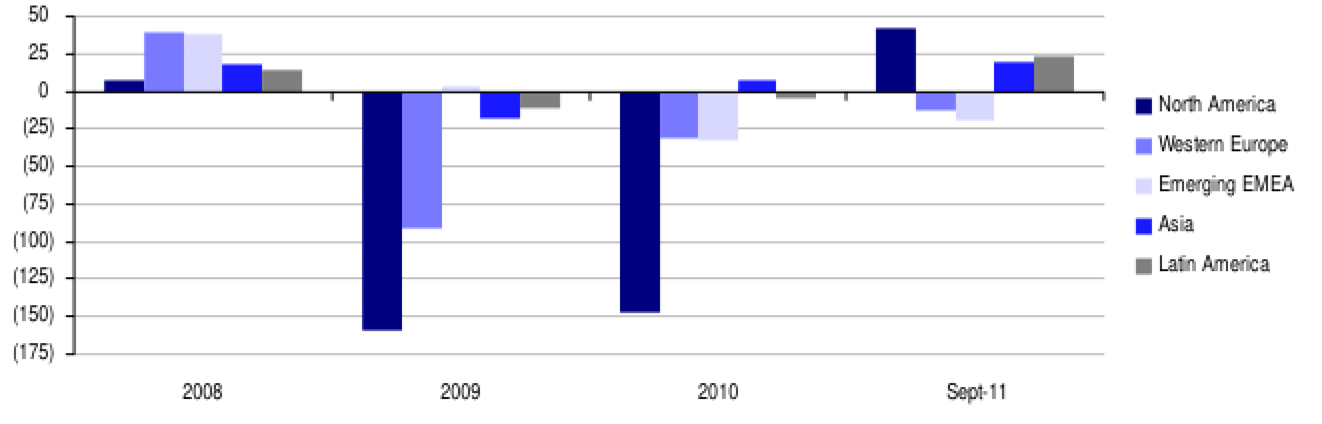
- **Europe lower still, but just 10% of market now**

While North America appears to have turned the corner, most of the upside has been offset by a still declining Europe along with recent weakness in the Middle East. However, Western Europe now represents just 10% of industry shipments, minimizing further downside for the overall market.

North America Bizjet Improving

Our analysis indicates that the North America market, which is key to any meaningful business jet recovery, is improving with deliveries up double-digits off the bottom. While North America appears to have turned the corner, most of this upside has been offset by a still declining Europe along with recent weakness in the Middle East. However, with Western Europe a much smaller proportion now at just 10% of total industry shipments, 2012 is likely to see higher industry deliveries if the North America recovery sustains, which we think it can.

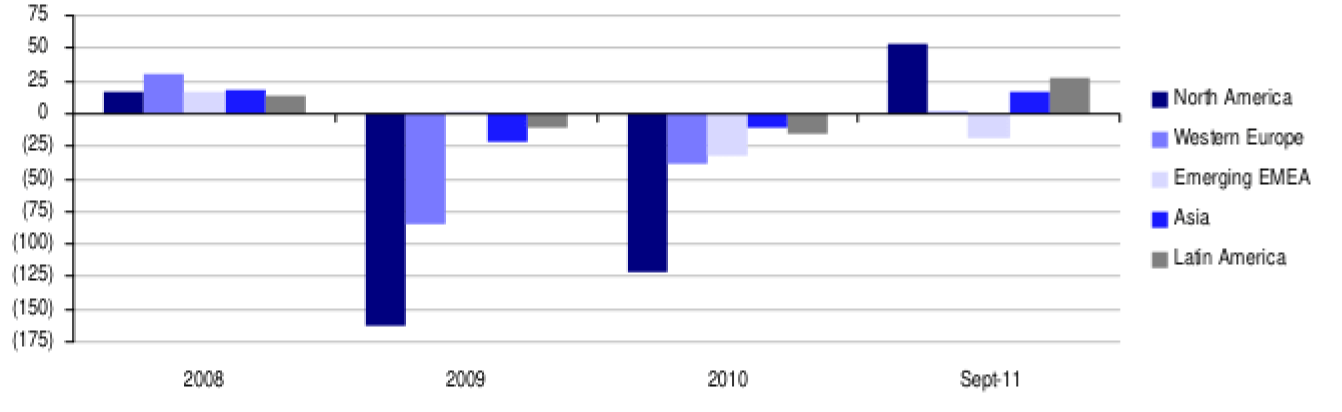
Chart 1: Rolling 12-Month Unit Delivery Growth by Region (Market)



Source: ASCEND and UBS estimates

The nascent recovery in North America is being led by the low end of the market, small and midsize aircraft. The large cabin market has seen a much smaller decline in North America while benefitting from growth in China//India and Latin America, which haven't really grown for small and midsize.

Chart 2: Rolling 12-Month Unit Delivery Growth by Region (Small/Midsize)



Source: ASCEND and UBS estimates

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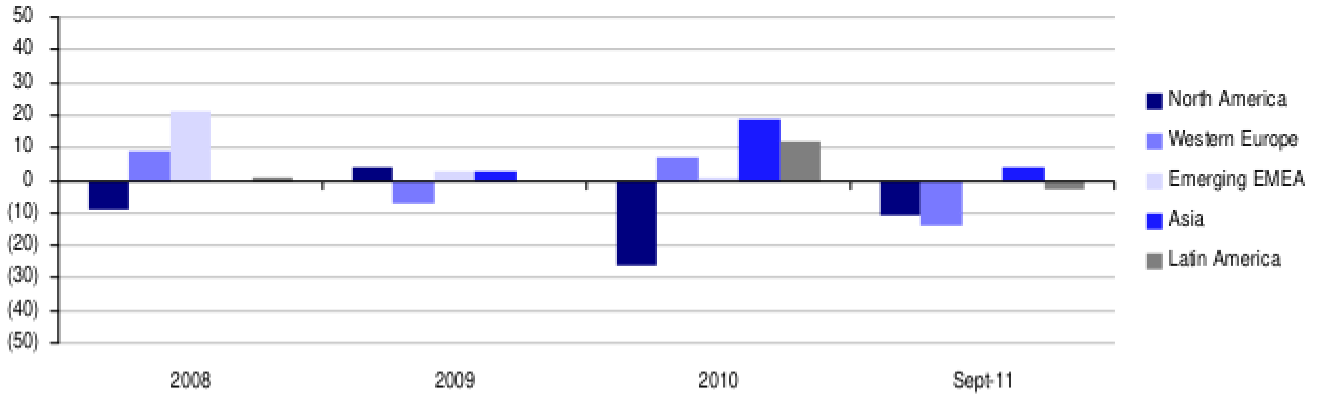
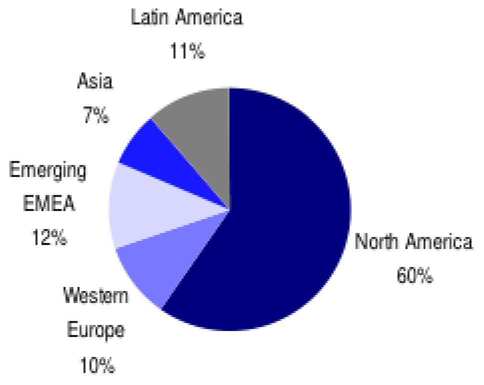
Chart 3: Rolling 12-Month Unit Delivery Growth by Region (Large)



Source: ASCEND and UBS estimates

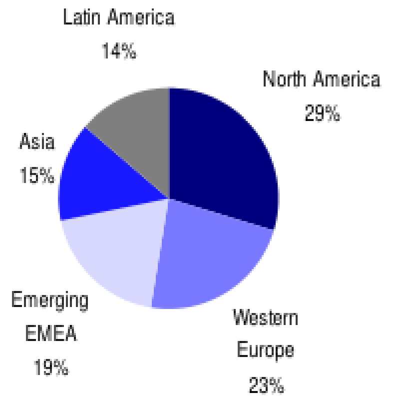
The small and midsize markets are most levered to North America, still representing 60% of combined small and midsize deliveries as compared to 30% for large.

Chart 4: 2010 Deliveries by Region (Small/Midsize)



Source: ASCEND and UBS estimates

Chart 5: 2010 Deliveries by Region (Large)



Source: ASCEND and UBS estimates

Table 1: Deliveries by Cabin Class and Region

VLJ	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010 YTD	2011 YTD	Growth
North America	0	0	0	0	0	0	2	117	182	137	72	41	29	(29%)
Western Europe	0	0	0	0	0	0	0	11	26	36	31	20	6	(70%)
Eastern Europe	0	0	0	0	0	0	0	2	10	7	9	8	2	(75%)
Middle East	0	0	0	0	0	0	0	0	2	1	0	0	1	n/a
Africa	0	0	0	0	0	0	0	0	7	2	4	4	1	(75%)
China/India	0	0	0	0	0	0	0	0	0	0	4	1	2	100%
APAC other	0	0	0	0	0	0	0	2	3	7	6	3	3	-
Latin America	0	0	0	0	0	0	0	10	22	33	46	33	10	(70%)
Unknown area	0	0	0	0	0	0	0	1	7	0	1	1	0	(100%)
Total VLJ	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**143**	**259**	**223**	**173**	**111**	**54**	**(51%)**

Small	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010 YTD	2011 YTD	Growth
North America	260	294	293	197	203	220	241	248	216	100	102	50	72	44%
Western Europe	45	53	55	32	32	46	71	79	92	27	13	6	11	83%
Eastern Europe	4	3	4	3	6	10	9	19	26	20	7	6	4	(33%)
Middle East	2	1	1	1	1	3	4	7	2	5	4	2	0	(100%)
Africa	6	3	6	5	1	1	5	4	6	7	2	1	0	(100%)
China/India	0	1	0	0	3	9	2	6	10	1	1	0	2	n/a
APAC other	4	3	6	4	5	4	16	6	6	9	2	1	0	(100%)
Latin America	24	33	24	13	14	17	27	36	25	16	19	9	28	211%
Unknown area	3	2	2	1	1	3	1	6	5	0	1	0	1	n/a
Total Small	**348**	**393**	**391**	**256**	**266**	**313**	**376**	**411**	**388**	**185**	**151**	**75**	**118**	**57%**

Midsize	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010 YTD	2011 YTD	Growth
North America	132	132	102	96	107	144	148	181	187	91	66	39	42	8%
Western Europe	12	15	10	10	13	20	37	36	53	22	16	12	6	(50%)
Eastern Europe	4	4	2	1	5	13	15	23	24	20	12	9	9	-
Middle East	2	5	0	1	2	4	5	4	10	10	2	1	0	(100%)
Africa	3	0	0	2	3	6	1	7	7	9	6	4	0	(100%)
China/India	2	4	2	2	1	1	5	7	13	8	14	4	11	175%
APAC other	10	5	3	5	4	2	5	8	11	5	4	2	1	(50%)
Latin America	12	8	11	4	3	11	11	13	27	21	13	10	13	30%
Unknown area	2	2	0	0	1	2	3	3	6	3	0	0	2	n/a
Total Midsize	**179**	**175**	**130**	**121**	**139**	**203**	**230**	**282**	**338**	**189**	**133**	**81**	**84**	**4%**

Large	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010 YTD	2011 YTD	Growth
North America	152	141	124	91	90	100	107	101	114	106	76	57	54	(5%)
Western Europe	28	22	28	20	26	27	37	51	59	41	58	42	25	(40%)
Eastern Europe	3	5	4	1	6	11	17	6	26	21	25	18	14	(22%)
Middle East	7	2	3	2	5	5	9	13	5	13	17	13	12	(8%)
Africa	3	10	2	3	4	2	1	1	5	5	7	6	5	(17%)
China/India	2	1	2	1	1	1	5	6	2	17	23	14	17	21%
APAC other	2	3	7	2	0	3	4	7	6	8	14	9	7	(22%)
Latin America	15	6	11	7	7	12	13	20	16	22	35	23	15	(35%)
Unknown area	3	1	0	1	0	1	0	10	6	2	5	5	3	(40%)
Total Large	**215**	**191**	**181**	**128**	**139**	**162**	**193**	**215**	**239**	**235**	**260**	**187**	**152**	**(19%)**

All	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010 YTD	2011 YTD	Growth
North America	544	567	519	384	400	464	498	647	699	434	316	187	197	5%
Western Europe	85	90	93	62	71	93	145	177	230	126	118	80	48	(40%)
Eastern Europe	11	12	10	5	17	34	41	50	86	68	53	41	29	(29%)
Middle East	11	8	4	4	8	12	18	24	19	29	23	16	13	(19%)
Africa	12	13	8	10	8	9	7	12	25	23	19	15	6	(60%)
China/India	4	6	4	3	5	11	12	19	25	26	42	19	32	68%
APAC other	16	11	16	11	9	9	25	23	26	29	26	15	11	(27%)
Latin America	51	47	46	24	24	40	51	79	90	92	113	75	66	(12%)
Unknown area	8	5	2	2	2	6	4	20	24	5	7	6	6	-
Total All	**742**	**759**	**702**	**505**	**544**	**678**	**801**	**1051**	**1224**	**832**	**717**	**454**	**408**	**(10%)**

All ex VLJ	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010 YTD	2011 YTD	Growth
North America	544	567	519	384	400	464	496	530	517	297	244	146	168	15%
Western Europe	85	90	93	62	71	93	145	166	204	90	87	60	42	(30%)
Eastern Europe	11	12	10	5	17	34	41	48	76	61	44	33	27	(18%)
Middle East	11	8	4	4	8	12	18	24	17	28	23	16	12	(25%)
Africa	12	13	8	10	8	9	7	12	18	21	15	11	5	(55%)
China/India	4	6	4	3	5	11	12	19	25	26	38	18	30	67%
APAC other	16	11	16	11	9	9	25	21	23	22	20	12	8	(33%)
Latin America	51	47	46	24	24	40	51	69	68	59	67	42	56	33%
Unknown area	8	5	2	2	2	6	4	19	17	5	6	5	6	20%
Total All ex VLJ	**742**	**759**	**702**	**505**	**544**	**678**	**799**	**908**	**965**	**609**	**544**	**343**	**354**	**3%**

Source: ASCEND and UBS estimates

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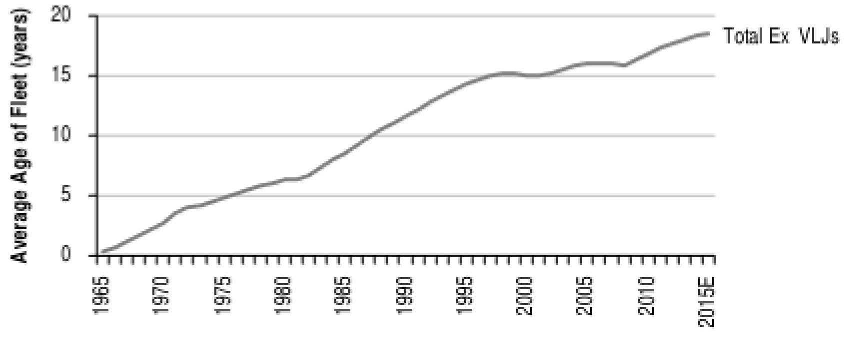
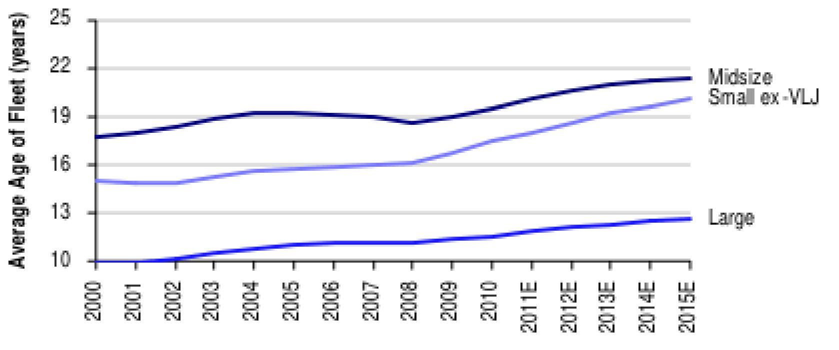
We believe the recovery in North America is being driven by replacement demand postponed during the downturn. After holding relatively steady during most of the last decade, the average age of the fleet has moved higher over the last few years. Most of the older aircraft are small and midsize aircraft in North America.

Chart 6: Average Fleet Age by Cabin Class (Years)



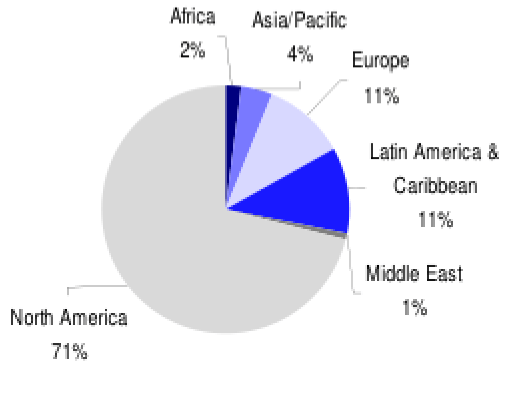
Source: UBS estimates

Chart 7: Average Fleet Age by Cabin Class (Years)



Source: UBS estimates

Chart 8: 11-20 Year Old Business Jet Installed Base by Region



Source: JETNET and UBS estimates

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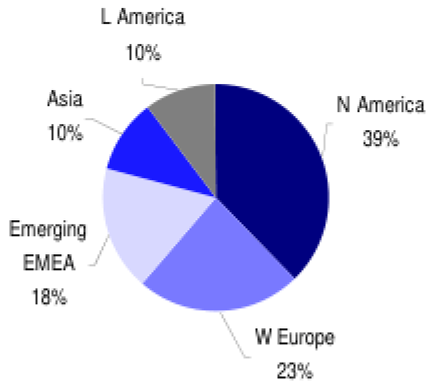
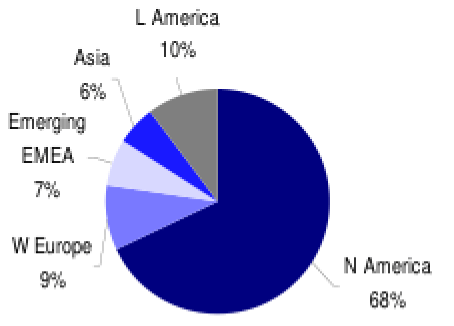
Cessna, with 60-70% of its deliveries and installed base in North America, is the most levered to a recovery in North America bizjets.

Chart 9: Bombardier Deliveries by Region



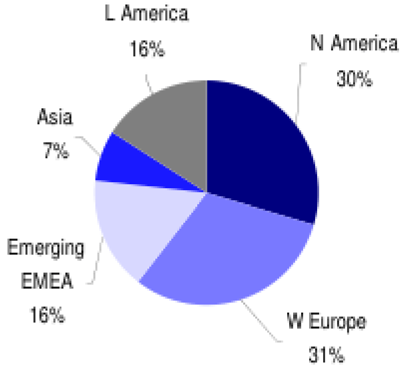
Source: JETNET and UBS estimates

Chart 10: Cessna Deliveries by Region



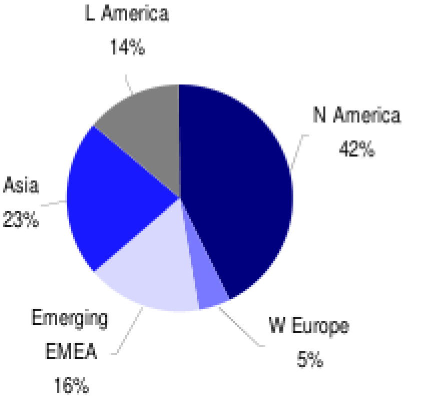
Source: JETNET and UBS estimates

Chart 11: Dassault Deliveries by Region



Source: JETNET and UBS estimates

Chart 12: Gulfstream Deliveries by Region



Source: JETNET and UBS estimates

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■ Statement of Risk

The business jet market is cyclical in nature, largely driven by the general economic environment. Business jet manufacturers' earnings and cash flow are dependent on end-user demand, availability of customer financing, program execution and inventory management. A weak market for business jets could negatively affect General Dynamics, Textron, Bombardier, Embraer, Rockwell Collins, Honeywell, B/E Aerospace, Rolls-Royce and United Technologies.

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Neutral	Hold/Neutral	37%	35%
Sell	Sell	7%	17%
UBS Short-Term Rating	**Rating Category**	**Coverage[3]**	**IB Services[4]**
Buy	Buy	less than 1%	0%
Sell	Sell	less than 1%	12%

1:Percentage of companies under coverage globally within the 12-month rating category.
2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.
3:Percentage of companies under coverage globally within the Short-Term rating category.
4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS. Rating allocations are as of 31 December 2011.

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Buy	Buy: Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.
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