

# UBS Investment Research

## UBS Business Jet Update

### Cycles Lower Sequentially

#### ■ Cycles 1% lower sequentially

We estimate business jet cycles (takeoffs & landings) were 1% lower from the prior year in April, better compared to 3% decline in March on easier comp as seasonally-adjusted cycles moved 1% lower sequentially. We estimate cycles are now running 26% higher from trough in early 2009, although still off 18% from prior peak in late 2007 including relatively flat cycles for past 18 months.

#### ■ Long- and short-range cycles declined on sequential basis

By segment, we estimate long- and short-range aircraft cycles were both 1% lower sequentially in April, while medium-range was roughly flat. Overall, through the recovery, short-range aircraft cycles have improved the most, up 28% from trough in early 2009 with mid-range and long-range both up 23%. Of the five major manufacturers, Dassault cycles decreased the most in April, down 4% sequentially, followed by Gulfstream down 2% and Cessna down 1%, while Bombardier and Hawker cycles were roughly flat. Dassault cycles are now 23% below prior peak in 2007 with Bombardier/Cessna/Hawker all 20-21% below and Gulfstream 18% below, while Embraer cycles have roughly tripled. Please see inside of note for detail by engine/avionics supplier.

#### ■ See positive risk-rewards

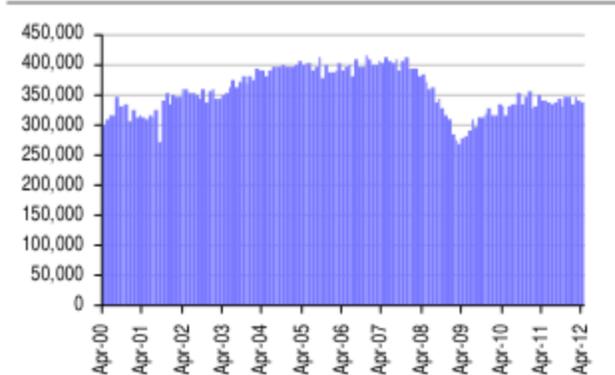
We believe North America bizjet is improving driven by replacement demand postponed during the downturn. We still see positive risk-rewards as we don't think stocks incorporate much for bizjets following recent underperformance. We prefer TXT/COL.

25 May 2012

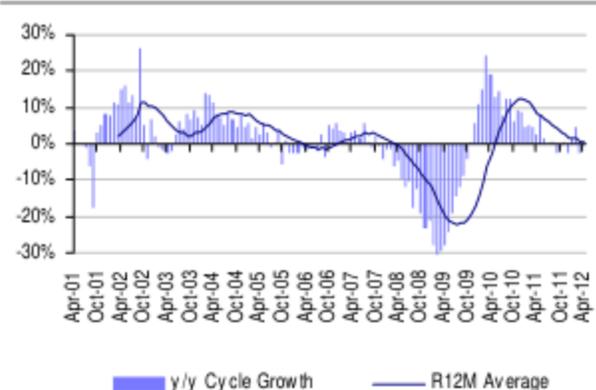
**David E. Strauss**  
 Analyst

**Darryl Genovesi**  
 Analyst

**Matthew Akers**  
 Associate Analyst

**Chart 1: Seasonally-Adjusted Monthly Cycles**


Source: FAA and UBS estimates

**Chart 2: YoY Absolute Cycle Growth**


Source: FAA and UBS estimates

This report has been prepared by UBS Securities LLC

**ANALYST CERTIFICATION AND REQUIRED DISCLOSURES BEGIN ON PAGE 13.**

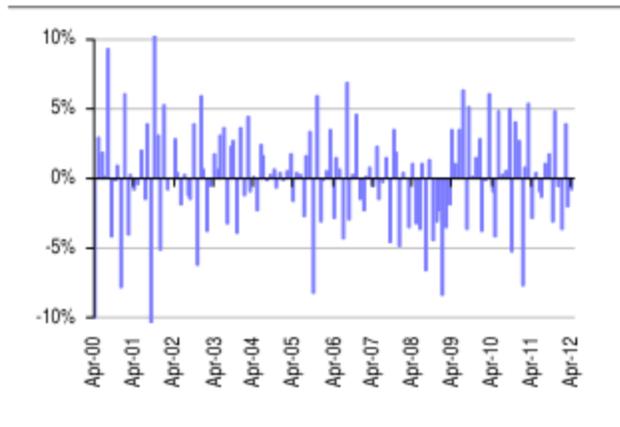
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## Business Jet Flight Activity

We track business jet flight activity as a leading indicator of the business jet aftermarket and as a gauge of general market conditions. Specifically, we are monitoring monthly business jet cycles (total takeoffs and landings) at domestic and international airports as reported by the FAA, including all flights of US origin and/or US destination coordinated through *FAA Terminal Services*, as well as additional domestic and international flight activity recorded to the database by *FAA En Route and Oceanic Services*. Roughly 84% of the flights we track are US domestic flights with 16% international.

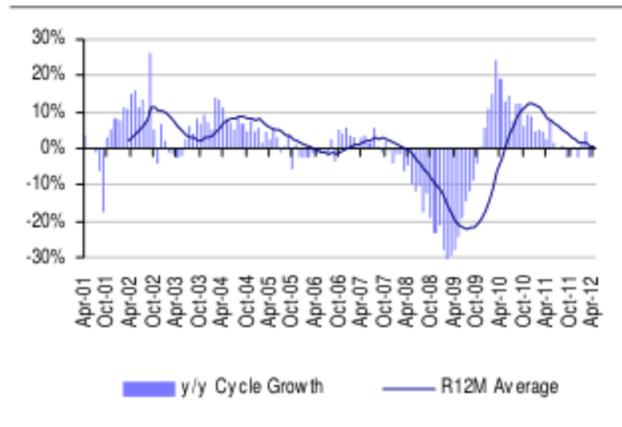
We estimate business jet cycles (takeoffs & landings) were 1% lower from the prior year in April, better compared to a 3% decline in March on easier comp as seasonally-adjusted cycles moved 1% lower sequentially.

**Chart 3: Seasonally-Adjusted Sequential Cycle Growth**



Source: FAA and UBS estimates

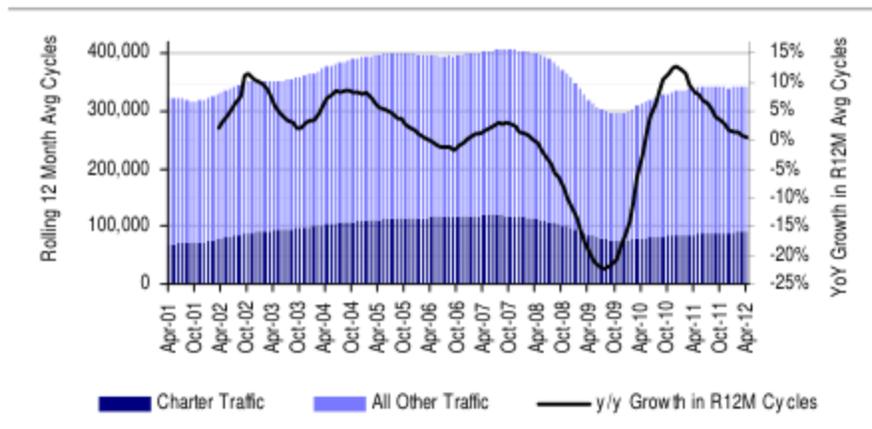
**Chart 4: YoY Absolute Cycle Growth**



Source: FAA and UBS estimates

We estimate charter activity in April was 5% higher from the prior year on a rolling 12-month basis including 3% growth on an absolute (unsmoothed) basis. Meanwhile, non-charter (military, freight and general aviation) was 1% lower on a rolling 12-month basis, including a 2% decline on an absolute basis.

**Chart 5: Rolling 12-Month Average Bizjet Cycles by User Type and YoY Growth**



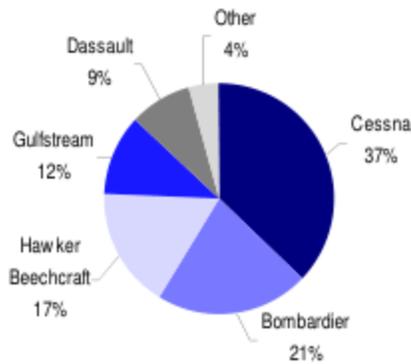
Source: FAA and UBS estimates

## Flight Activity by Manufacturer

Of the five major manufacturers, Dassault cycles declined the most in April, down 4% sequentially, followed by Gulfstream down 2% and Cessna down 1%, while Bombardier and Hawker cycles were roughly flat.

We estimate Cessna aircraft accounted for 37% of all business jet cycles flown over the past 12 months, followed by Bombardier at 21%, Hawker at 17%, Gulfstream at 12% and Dassault at 9%. Comparatively, we estimate Cessna aircraft make up 33% of the installed fleet, followed by Bombardier at 22%, Hawker Beechcraft at 13%, Gulfstream at 12%, and Dassault at 11%.

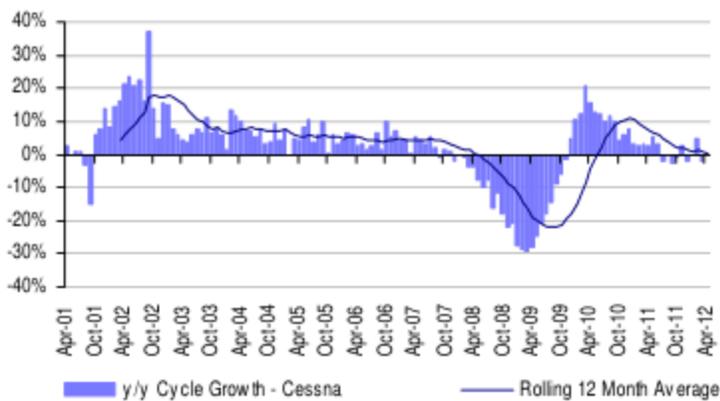
**Chart 6: Cycle Distribution by Manufacturer—12 Months Ended April 2012**



Note: Analysis does not include Embraer Legacy 600, which we estimate make up 1% of the installed fleet.  
Source: FAA and UBS estimates

We estimate Cessna cycles in April were roughly unchanged from the prior year on a rolling 12-month basis, although 1% lower on an absolute (unsmoothed) basis.

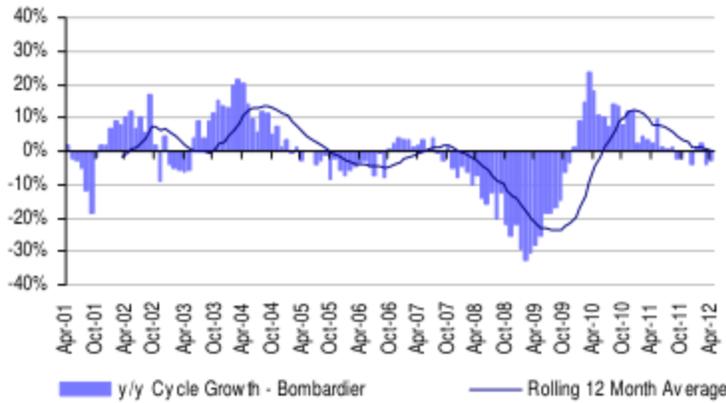
**Chart 7: YoY Growth in Absolute and Rolling 12-Month Cycles—Cessna**



Source: FAA and UBS estimates

We estimate Bombardier cycles in April were roughly unchanged from the prior year on a rolling 12-month basis, although 3% lower on an absolute basis.

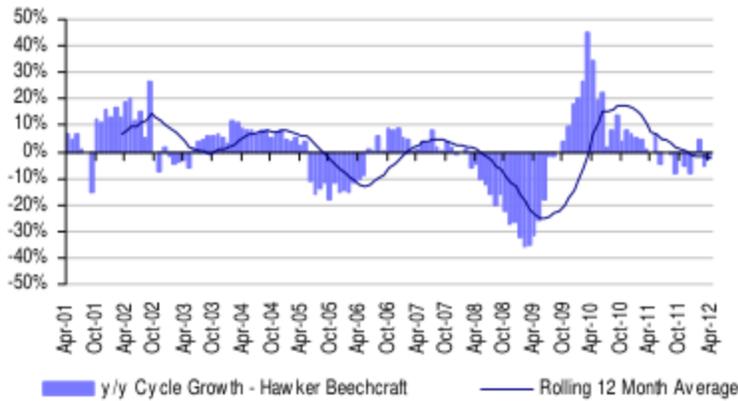
**Chart 8: YoY Growth in Absolute and Rolling 12-Month Cycles—Bombardier**



Source: FAA and UBS estimates

We estimate Hawker Beechcraft cycles in April were 2% lower from the prior year on a rolling 12-month basis, including a 2% decline on an absolute basis.

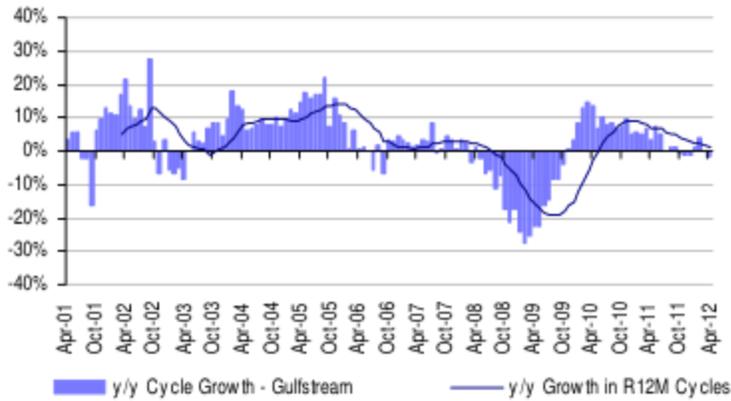
**Chart 9: YoY Growth in Absolute and Rolling 12-Month Cycles—Hawker Beechcraft**



Source: FAA and UBS estimates

We estimate Gulfstream cycles in April were 1% higher from the prior year on a rolling 12-month basis, although 2% lower on an absolute basis.

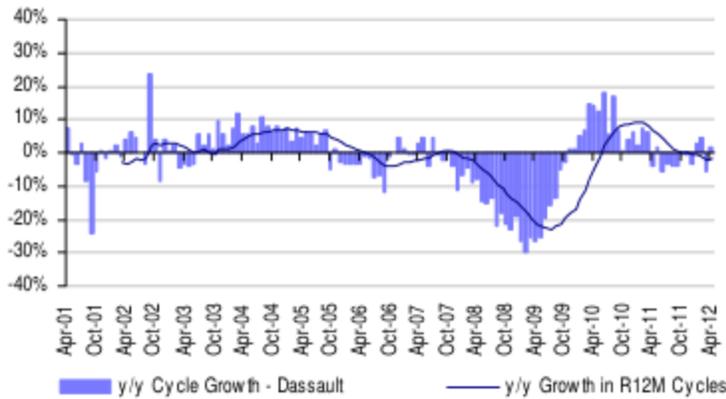
**Chart 10: YoY Growth in Absolute and Rolling 12-Month Cycles—Gulfstream**



Source: FAA and UBS estimates

We estimate Dassault cycles in April were 2% lower from the prior year on a rolling 12-month basis, although 2% higher on an absolute (unsmoothed) basis.

**Chart 11: YoY Growth in Absolute and Rolling 12-Month Cycles—Dassault**



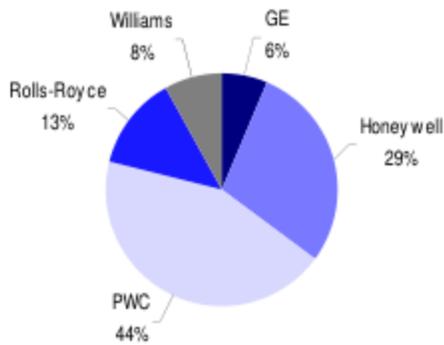
Source: FAA and UBS estimates

## Flight Activity by Engine and Avionics Supplier

We have also analyzed business jet flight activity by engine and avionics supplier. Cycles declined across four out of five engine manufacturers in April with GE and Rolls-Royce cycles down 3% on a seasonally-adjusted sequential basis, followed by Williams International down 2% and Honeywell down 1%, while Pratt Canada (PWC) cycles were roughly unchanged from March levels. By avionics supplier, we estimate Rockwell Collins avionics cycles were roughly flat on a seasonally-adjusted sequential basis, while Honeywell cycles declined 2%.

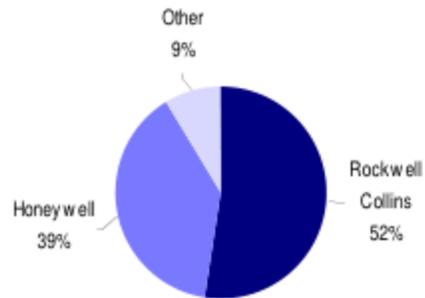
We estimate PWC engines accounted for 44% of all business jet cycles over the past 12 months, followed by Honeywell at 29%, Rolls-Royce at 13%, Williams International at 8%, and GE at 6%. We estimate Rockwell Collins avionics accounted for 52% of all business jet cycles over the past 12 months, while Honeywell avionics accounted for 39% of total cycles.

**Chart 12: Cycle Distribution by Engine Supplier**



Source: FAA and UBS estimates

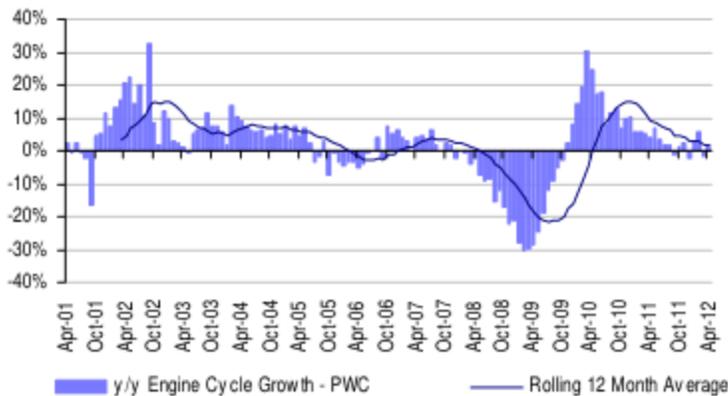
**Chart 13: Cycle Distribution by Avionics Supplier**



Source: FAA and UBS estimates

We estimate PWC engine cycles in April were 2% higher from the prior year on a rolling 12-month basis including 1% growth on an absolute (unsmoothed) basis.

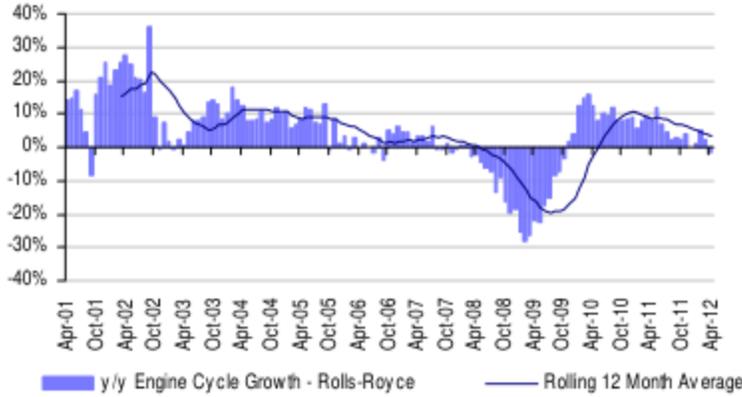
**Chart 14: YoY Growth in Absolute and Rolling 12-Month Cycles—PWC Engines**



Source: FAA and UBS estimates

We estimate Rolls-Royce engine cycles in April were 3% higher from the prior year on a rolling 12-month basis, although 2% lower on an absolute (unsmoothed) basis.

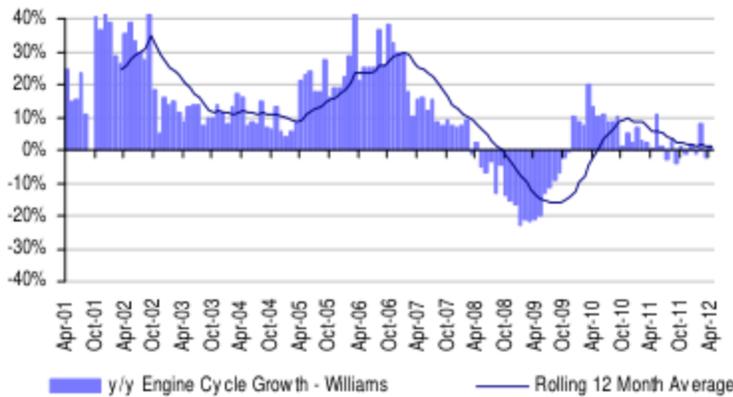
**Chart 15: YoY Growth in Absolute and Rolling 12-Month Cycles—RR Engines**



Source: FAA and UBS estimates

We estimate Williams International engine cycles in April were 1% higher from the prior year on a rolling 12-month basis, including 1% growth on an absolute (unsmoothed) basis.

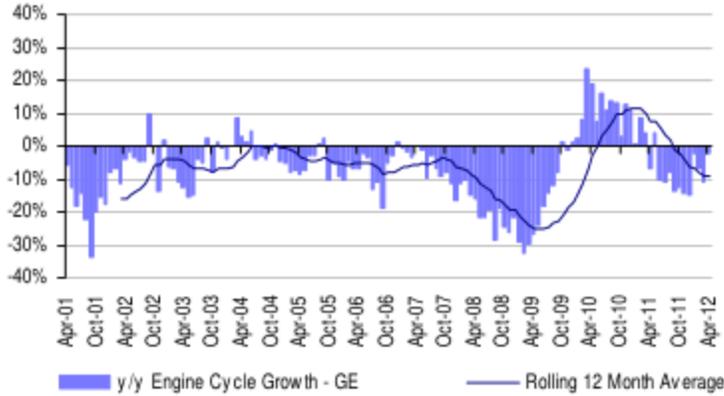
**Chart 16: YoY Growth in Absolute and Rolling 12-Month Cycles—Williams Engines**



Source: FAA and UBS estimates

We estimate GE engine cycles in April were 9% lower from the prior year on a rolling 12-month basis including a 2% decline on an absolute basis.

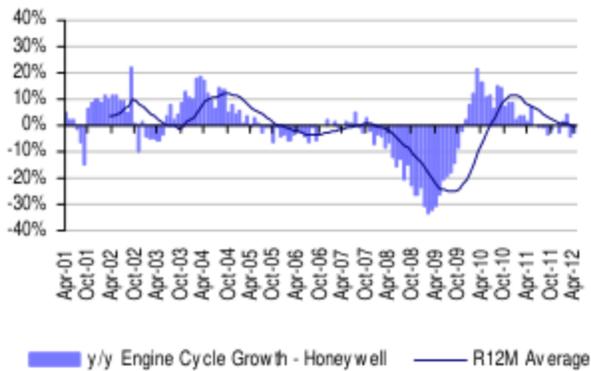
**Chart 17: YoY Growth in Absolute and Rolling 12-Month Cycles—GE Engines**



Source: FAA and UBS estimates

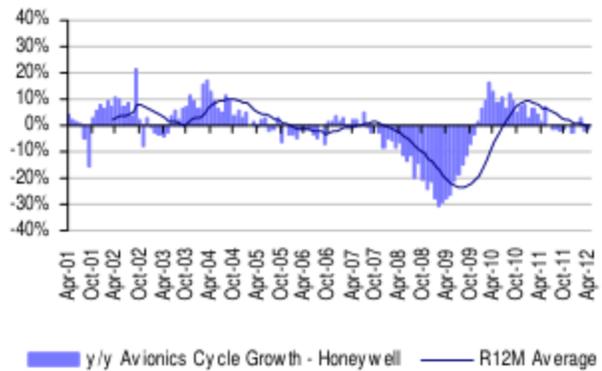
We estimate Honeywell engine cycles in April were 1% lower from the prior year on a rolling 12-month basis including a 3% decline on an absolute basis. Meanwhile, Honeywell avionics cycles were roughly flat from the prior year on a rolling 12-month basis, although 2% lower on an absolute basis.

**Chart 18: Honeywell Engine Cycle Growth**



Source: FAA and UBS estimates

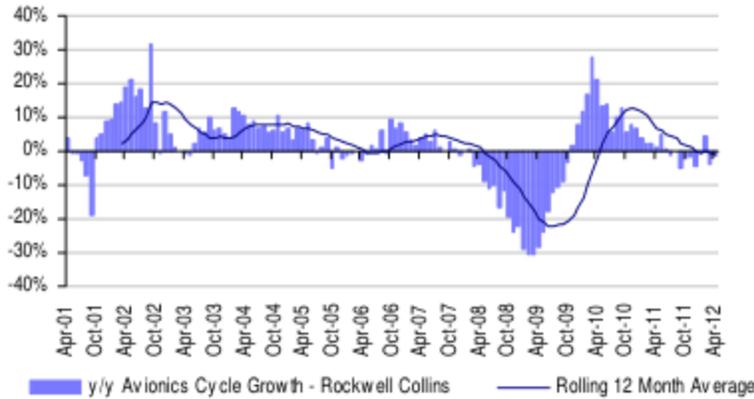
**Chart 19: Honeywell Avionics Cycle Growth**



Source: FAA and UBS estimates

We estimate Rockwell Collins avionics cycles in April were 1% lower from the prior year on a rolling 12-month basis including a 1% decline on an absolute (unsmoothed) basis.

**Chart 20: Rockwell Collins Avionics Cycle Growth**



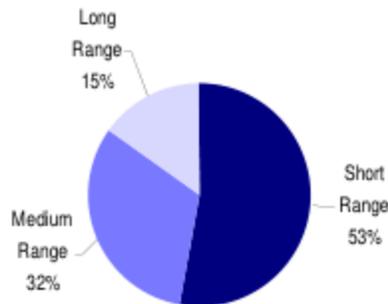
Source: FAA and UBS estimates

## Flight Activity by Market Segment

By segment, we estimate short and long-range aircraft cycles both decreased 1% sequentially in April, while mid-range cycles were roughly flat. Overall, through the recovery, short-range aircraft cycles have improved the most, up 28% from trough in early 2009 with medium and long-range both up 23%.

We estimate short-range aircraft (defined here as those aircraft with less than 2,000 nmi range) have accounted for 53% of all business jet cycles over the past 12 months, followed by medium-range aircraft at 32% and long-range aircraft (those with greater than 3,500 nmi range) at 15%. Comparatively, we estimate short-range aircraft make up 46% of the installed business jet fleet, followed by medium at 35% and long-range aircraft at 19%.

**Chart 21: Cycle Distribution by Range Class—12 Months Ended April 2012**

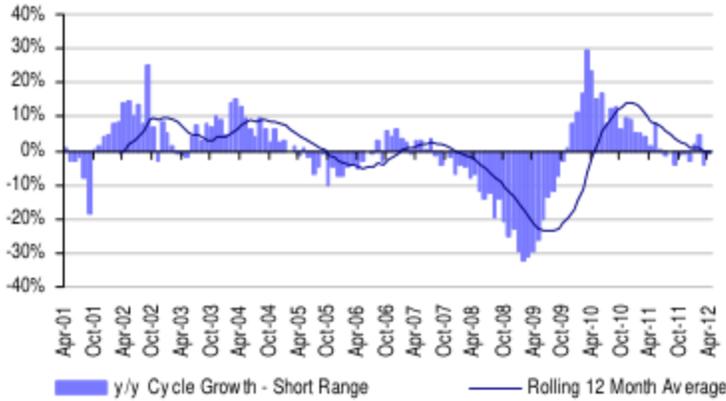


Note: Analysis does not include Embraer Legacy 600, which we estimate make up 1% of the installed fleet.

Source: FAA and UBS estimates

We estimate short-range aircraft cycles in April were roughly unchanged from the prior year on a rolling 12-month basis, although 1% lower on an absolute (unsmoothed) basis.

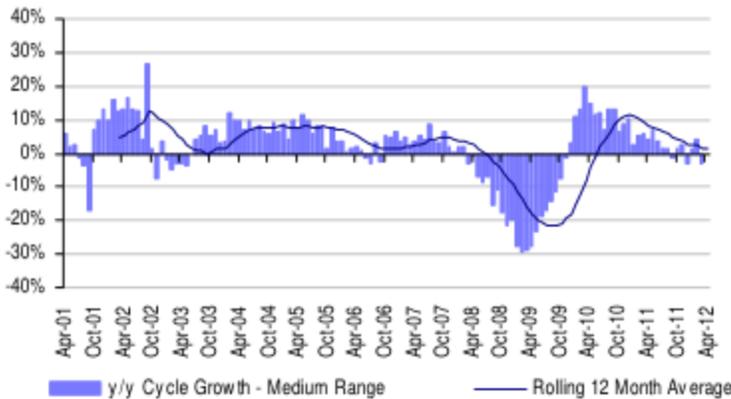
**Chart 22: YoY Growth in Absolute and Rolling 12-Month Cycle—Short-Range Aircraft**



Source: FAA and UBS estimates

We estimate medium-range aircraft cycles in April were 1% higher from the prior year on a rolling 12-month basis, although roughly unchanged on an absolute (unsmoothed) basis.

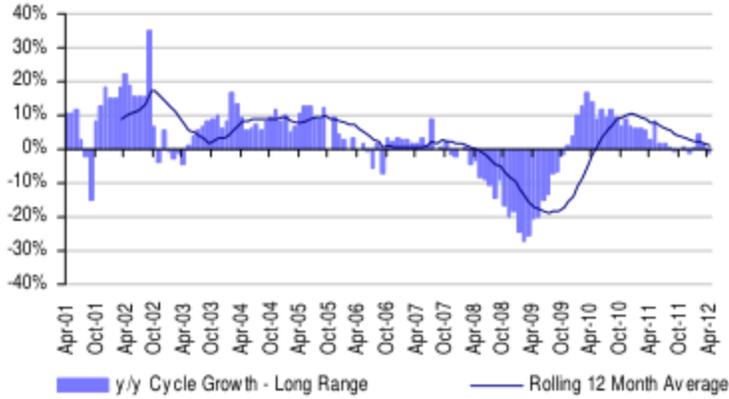
**Chart 23: YoY Growth in Absolute and Rolling 12-Month Cycles—Med-range Aircraft**



Source: FAA and UBS estimates

We estimate long-range aircraft cycles in April were 1% higher from the prior year on a rolling 12-month basis, although 1% lower on an absolute (unsmoothed) basis.

**Chart 24: YoY Growth in Absolute and Rolling 12-Month Cycles—Long-Range Aircraft**



Source: FAA and UBS estimates

Table 1: Business Jet Cycle Growth by Make and Model (April 2012)

	R12M % of Total Cycles	Absolute YoY Growth	R3M Growth	R12M Growth	Year to Date Growth
<b>Short Range</b>					
Beechjet 400 / Hawker 400 XP	8.0%	(1.6%)	(1.6%)	(2.4%)	(1.4%)
Citation XLS	7.8%	(4.1%)	(1.5%)	2.6%	3.8%
Citation Encore	6.3%	0.8%	2.9%	(3.8%)	(4.4%)
Citation Bravo	4.5%	(3.6%)	(5.5%)	(6.8%)	(5.4%)
Learjet 35	4.1%	(6.6%)	(5.1%)	(1.4%)	(0.7%)
Learjet 45	3.7%	(1.3%)	3.4%	4.3%	4.3%
Citation CJ1	3.1%	(1.8%)	(1.8%)	(1.6%)	(0.3%)
Citation CJ3	2.3%	4.5%	8.0%	6.4%	5.9%
Learjet 31	1.5%	(9.8%)	(5.2%)	(4.5%)	(1.3%)
Citation CJ2	1.5%	8.5%	4.8%	1.0%	2.3%
Falcon 20	1.2%	14.0%	(7.2%)	(16.9%)	(10.8%)
Premier I	1.3%	(5.3%)	(1.8%)	(0.2%)	(1.4%)
Phenom 100/300	2.0%	29.3%	29.7%	64.4%	76.8%
Citation II/SP	0.7%	(8.9%)	(12.0%)	(9.8%)	(7.9%)
Learjet 25	0.5%	(32.3%)	(26.1%)	(28.5%)	(25.9%)
Falcon 10	0.6%	(6.2%)	1.5%	(7.9%)	(9.0%)
Sabreliner 40	0.6%	(16.3%)	(20.8%)	(12.8%)	(7.8%)
Citation II/SP	0.6%	(8.5%)	(1.4%)	(4.3%)	(2.8%)
<i>All Short Range Aircraft</i>	<b>53%</b>	<i>(0.9%)</i>	<i>(0.2%)</i>	<i>(0.2%)</i>	<i>0.8%</i>
<b>Medium Range</b>					
Hawker 800XP	7.2%	(4.3%)	(2.3%)	(2.9%)	(1.2%)
Citation X	3.9%	(1.0%)	0.5%	5.3%	6.6%
Citation Sovereign	3.1%	3.9%	6.4%	7.7%	7.6%
Falcon 2000	2.9%	(3.5%)	(1.5%)	2.8%	3.7%
Challenger 300	2.9%	7.1%	7.2%	8.5%	9.2%
Learjet 60	2.4%	(0.6%)	(2.8%)	0.1%	0.3%
Gulfstream G-II / G200	2.3%	1.5%	(0.6%)	(0.2%)	0.6%
Citation III	1.7%	(5.2%)	(6.4%)	(6.1%)	(5.3%)
Falcon 50	1.8%	7.7%	5.4%	2.5%	0.9%
Gulfstream G100 / G150	1.6%	(4.1%)	(5.3%)	(1.2%)	0.1%
Learjet 55	0.8%	(14.4%)	(13.7%)	(2.5%)	(1.6%)
Westwind 1124	0.7%	(2.2%)	3.9%	(5.8%)	(7.5%)
<i>All Medium Range Aircraft</i>	<b>32%</b>	<i>(0.4%)</i>	<i>0.1%</i>	<i>1.2%</i>	<i>2.0%</i>
<b>Long Range</b>					
Gulfstream G-IV / G400 / G450	4.5%	0.2%	1.9%	3.0%	4.2%
Challenger 604	4.1%	0.9%	(0.2%)	(1.1%)	(0.0%)
Gulfstream G-V / G500 / G550	2.5%	(5.3%)	4.9%	3.1%	3.9%
Falcon 900	2.1%	(1.9%)	(1.2%)	0.7%	0.7%
Global Express	1.2%	(0.6%)	3.7%	4.4%	5.2%
Gulfstream G-III / G300 / G350	0.7%	(7.7%)	(2.6%)	(4.4%)	(4.2%)
<i>All Long Range Aircraft</i>	<b>15%</b>	<i>(1.0%)</i>	<i>1.6%</i>	<i>1.4%</i>	<i>2.3%</i>
<b>Total</b>	<b>100%</b>	<b>(0.8%)</b>	<b>0.2%</b>	<b>0.5%</b>	<b>1.4%</b>

Source: FAA 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. Our estimates, ratings and price targets for both Rockwell Collins and Textron are subject to additional risks including poor program execution and government funding related to their defense and security businesses. Additionally, Textron faces liquidity risks related to its asset based lending businesses.

#### ■ Analyst Certification

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### UBS Investment Research: Global Equity Rating Allocations

UBS 12-Month Rating	Rating Category	Coverage <sup>1</sup>	IB Services <sup>2</sup>
Buy	Buy	51%	34%
Neutral	Hold/Neutral	40%	35%
Sell	Sell	9%	15%
UBS Short-Term Rating	Rating Category	Coverage <sup>3</sup>	IB Services <sup>4</sup>
Buy	Buy	less than 1%	25%
Sell	Sell	less than 1%	17%

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 March 2012.

### UBS Investment Research: Global Equity Rating Definitions

UBS 12-Month Rating	Definition
Buy	FSR is > 6% above the MRA.
Neutral	FSR is between -6% and 6% of the MRA.
Sell	FSR is > 6% below the MRA.
UBS Short-Term Rating	Definition
Buy	Buy: Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.
Sell	Sell: Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.

**KEY DEFINITIONS**

**Forecast Stock Return (FSR)** is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months.

**Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium).

**Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation.

**Short-Term Ratings** reflect the expected near-term (up to three months) performance of the stock and do not reflect any change in the fundamental view or investment case.

**Equity Price Targets** have an investment horizon of 12 months.

**EXCEPTIONS AND SPECIAL CASES**

**UK and European Investment Fund ratings and definitions are:** Buy: Positive on factors such as structure, management, performance record, discount; Neutral: Neutral on factors such as structure, management, performance record, discount; Sell: Negative on factors such as structure, management, performance record, discount.

**Core Banding Exceptions (CBE):** Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Company Disclosures table in the relevant research piece.

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**UBS Securities LLC:** David E. Strauss; Darryl Genovesi; Matthew Akers.

**Company Disclosures**

Company Name	Reuters	12-mo rating	Short-term rating	Price	Price date
<b>Rockwell Collins Inc.</b> <sup>2, 4, 6a, 6b, 7, 8, 16, 18a</sup>	██████	Buy	N/A	US\$50.62	24 May 2012
<b>Textron Inc.</b> <sup>6b, 7, 16, 18b, 22</sup>	██████	Buy	N/A	US\$23.78	24 May 2012

Source: UBS. All prices as of local market close.

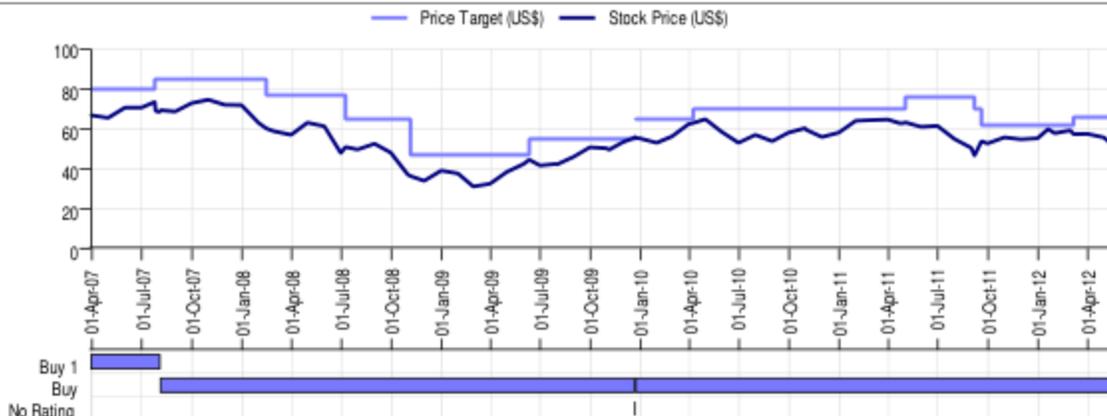
Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

2. UBS AG, its affiliates or subsidiaries has acted as manager/co-manager in the underwriting or placement of securities of this company/entity or one of its affiliates within the past 12 months.
4. Within the past 12 months, UBS AG, its affiliates or subsidiaries has received compensation for investment banking services from this company/entity.
- 6a. This company/entity is, or within the past 12 months has been, a client of UBS Securities LLC, and investment banking services are being, or have been, provided.
- 6b. This company/entity is, or within the past 12 months has been, a client of UBS Securities LLC, and non-securities services are being, or have been, provided.
7. Within the past 12 months, UBS Securities LLC has received compensation for products and services other than investment banking services from this company/entity.
8. The equity analyst covering this company, a member of his or her team, or one of their household members has a long common stock position in this company.
16. UBS Securities LLC makes a market in the securities and/or ADRs of this company.
- 18a. The U.S. equity strategist, a member of his team, or one of their household members has a long common stock position in Rockwell Collins Inc.
- 18b. The U.S. equity strategist, a member of his team, or one of their household members has a long common stock position in Textron Inc.

22. UBS AG, its affiliates or subsidiaries held other significant financial interests in this company/entity as of last month's end (or the prior month's end if this report is dated less than 10 working days after the most recent month's end).

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report.

**Rockwell Collins Inc. (US\$)**



Source: UBS; as of 24 May 2012

**Textron Inc. (US\$)**



Source: UBS; as of 24 May 2012

Note: On August 4, 2007 UBS revised its rating system. (See 'UBS Investment Research: Global Equity Rating Definitions' table for details). From September 9, 2006 through August 3, 2007 the UBS ratings and their definitions were: Buy 1 = FSR is > 6% above the MRA, higher degree of predictability; Buy 2 = FSR is > 6% above the MRA, lower degree of predictability; Neutral 1 = FSR is between -6% and 6% of the MRA, higher degree of predictability; Neutral 2 = FSR is between -6% and 6% of the MRA, lower degree of predictability; Reduce 1 = FSR is > 6% below the MRA, higher degree of predictability; Reduce 2 = FSR is > 6% below the MRA, lower degree of predictability. The predictability level indicates an analyst's conviction in the FSR. A predictability level of '1' means that the analyst's estimate of FSR is in the middle of a narrower, or smaller, range of possibilities. A predictability level of '2' means that the analyst's estimate of FSR is in the middle of a broader, or larger, range of possibilities. From October 13, 2003 through September 8, 2006 the percentage band criteria used in the rating system was 10%.

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