

**What's interesting about Airbus is...that since 2016 it has outperformed the S&P500**

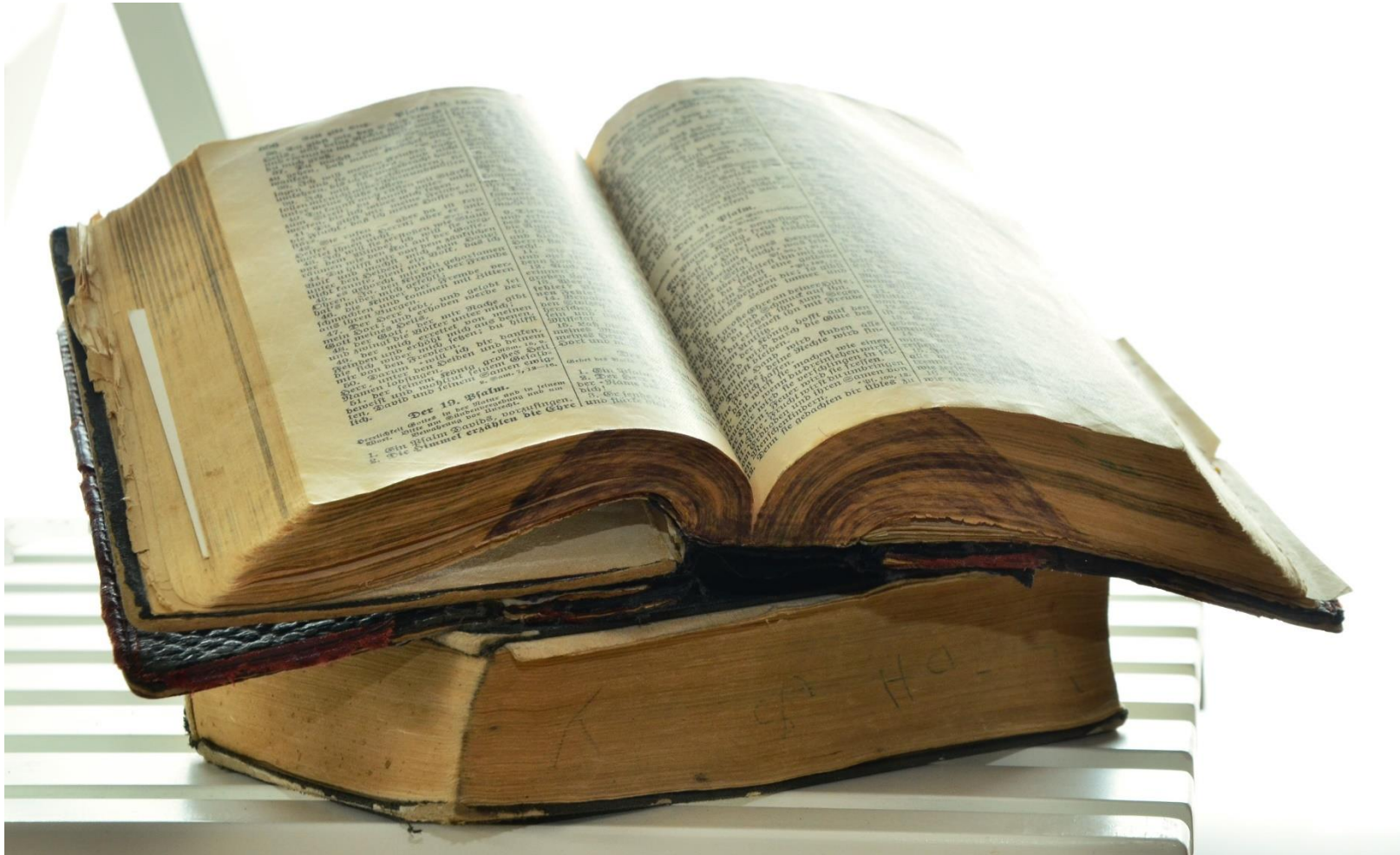
# AIRBUS

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ACADEMY

**Andrew Stotz, PhD, CFA**

- 🌐 My name is Andrew Stotz, let's get into this case study!

# COMPANY BACKGROUND



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# What is Airbus doing?

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- ★ Airbus designs, produces, and delivers aerospace products to its customers
  - Its main customers are airlines around the world
- ★ Airbus is a major player in the global aviation market and also a leading aerospace and defense company

# Are the aviation and airline industries the same?

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First A350-1000 from the delivery of major components through the final assembly process in Toulouse, France

- 🌐 Aviation is the operation of aircraft, including the design, development, production, and maintenance of aircraft
- 🌐 All aspects of flying, including private, commercial, and military aviation
- 🌐 Ex. Airbus, Boeing

# Are the aviation and airline industries the same?



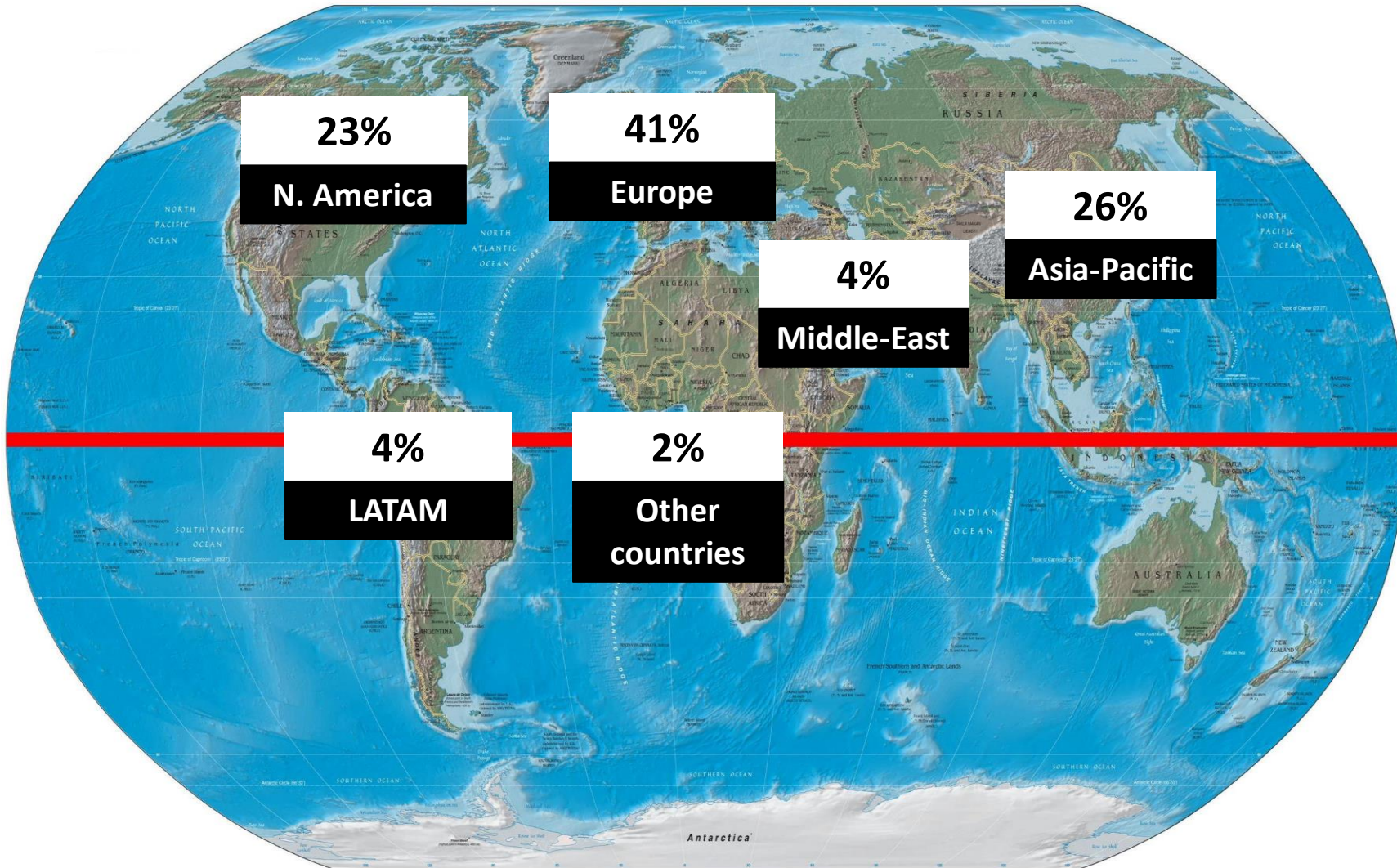
Emirates Premium Economy seats on Airbus A380

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- 🌐 Airlines provide air transportation services for passengers and cargo from one location to another
- 🌐 A subset of the broader aviation industry
- 🌐 Ex. Delta, Emirates, American Airlines

# Airbus net revenue in 2022



# Revenue by segment



**Commercial aircraft**  
**69%**



**Helicopters**  
**12%**



**Defense & space**  
**19%**

# Best-selling aircraft, a total of 661 deliveries achieved in 2022



## Airbus A320 family

110-220 passengers

**516 deliveries**



## Airbus A350 family

300-410 passengers

**60 deliveries**



## Airbus A220 family

400-500 passengers

**53 deliveries**






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10,176 A320s delivered since 1982

Beaten only by Boeing's 737, with 10,877 delivered since 1968



# Top five aircraft orders from global airlines, since November 2023

	<b>Indigo – India</b>	<b>1,330 orders</b>
	<b>Airasia – Malaysia</b>	<b>592 orders</b>
	<b>Wizz Air – Hungary</b>	<b>565 orders</b>
	<b>EasyJet – UK</b>	<b>548 orders</b>
	<b>Lufthansa – Germany</b>	<b>536 orders</b>

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# Airbus's competitors



**VS**

Boeing - United States

- Airbus's all-sector and all-Airbus family aircraft
- Decades competitive duopoly commercial aircraft manufacturing



**VS**

Comac - China

- Airbus A320neo



**VS**

Embraer - Brazil

- Airbus A220 family
- Military transport and mission aircraft



**VS**

Leonardo - Italy

- Airbus Helicopters
- Defence and space sector

# Will the new player from China, Comac, break the competitive duopoly?

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- ★ Comac C919, is a direct competitor to Airbus's A320neo and Boeing 737
- ★ Aims to compete with Airbus and Boeing
- ★ A big Airbus customer, China Eastern Airlines, will order another 100 C919 airplanes
  - **Delivered in batches from 2024 to 2031**
- ★ Comac's significant milestone in 2022 was the certification and first delivery of the C919



# Airbus vs Boeing vs COMAC



Airbus A320neo



Boeing 737 MAX 8



Comac C919

**150-180**

Passengers

**162-178**

Passengers

**158-192**

Passengers

**6,390**

Range (km.)

**6,480**

Range (km.)

**5,555**

Range (km.)

**US\$110m**

Price

**US\$122m**

Price

**US\$95m**

Price

# Roger Béteille, one of the founding fathers of Airbus



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- 🌐 Contributed towards the airline company's initial success from 1967 to 1985
- 🌐 A driving force behind the A300 program
- 🌐 Served initially as a Technical and Coordinating Manager, and became Managing Director in 1975

# COMPETITIVE STRATEGY



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# Airbus SE - France - Founded 1970

Industrials sector, 134,267 employees, €58.7bn revenue

## Main segments/products

- Airbus commercial aircraft
- Airbus helicopters
- Airbus defense and space

## Its competitive advantage

*Competitive advantage through global presence, technological expertise, a wide range of aircraft, and government support.*

## How it achieved its competitive advantage

*Competitive advantage through continuous investing in research and development, evolving advanced technologies, and collaborating with suppliers, airlines, and governments.*

# The beginning of Airbus, European nations to build an aircraft, A300

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- ★ In 1967, ministers from France, Germany, and Britain agreed to the joint development and production of an aircraft, the A300
  - To strengthen European cooperation in the field of aviation technology
  - To compete with the dominant American aircraft firms, like Boeing
- ★ Britain withdrew from giving financial support to the Airbus program, due to escalating costs





# Germany steps up

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- ★ Germany offered to contribute up to 50% of the costs if the French did the same
- ★ Despite the British government's withdrawal, British manufacturer Hawker Siddeley decided to invest £35 million in the A300
- ★ In 1967, ministers of France, Britain, and Germany signed an MOU to launch the first A300



# Remarkable milestone in the aviation industry

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- ★ In 1970, Air France signed to buy the first six A300s
- ★ The A320, in 1987, proved to be one of the most successful aircraft families in the world
  - **Improved safety, increased efficiency, and reduced airline maintenance costs**

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# My favorite Airbus plane disappeared!

# The Airbus A380, a double-deck, wide-body, four-engine jet airliner, first flew in 2005

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- ★ World's largest passenger airliner, carrying 525 people
- ★ Faced production delays and cost overruns; initial costs at €11bn and totaled c. €30 bn
- ★ Its large size required airport modifications, limiting flexibility and demand
- ★ Introduction coincided with Boeing's 787 and Airbus's own A350, both more efficient.
- ★ High oil prices hurt demand for large aircraft; breakeven was 750, sold only 251, end in 2021





# Friday 5 January: Unused cabin door broke away from an Alaska Airlines flight from Portland

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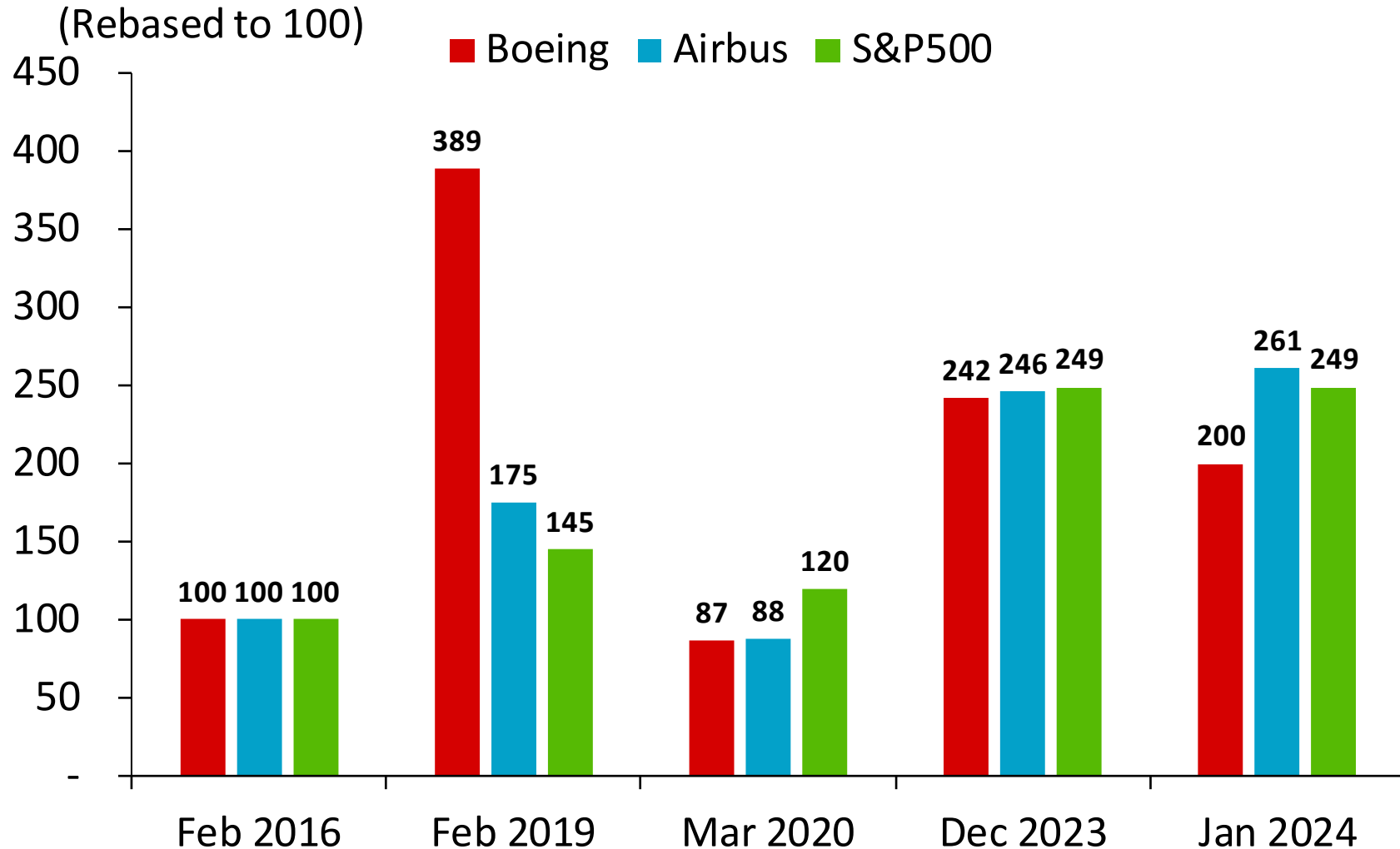


- 🌐 As of Tuesday, January 9, 2024, the FAA has required that every **Boeing** 737-9 Max with a plug door remain grounded until the FAA finds each can safely return to operation

**What's interesting about Airbus is...that since 2016 it has outperformed the S&P500**

# AIRBUS

# Airlines have been on a wild ride, especially Boeing; Airbus has performed inline with S&P500



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# Quarterly results



(€ m)	3Q22	4Q22	1Q23	2Q23	3Q23	YoY (%)	9M23	23E	% of 23E
Revenue	13,309	20,644	11,763	15,900	14,897	11.9	42,560	64,052	66.4
Cost of sales	(11,162)	(17,139)	(10,103)	(13,043)	(12,846)	15.1	(35,992)	(52,522)	68.5
<b>Gross profit</b>	<b>2,147</b>	<b>3,505</b>	<b>1,660</b>	<b>2,857</b>	<b>2,051</b>	<b>(4.5)</b>	<b>6,568</b>	<b>11,529</b>	<b>57.0</b>
SG&A	(1,240)	(1,734)	(1,270)	(1,411)	(1,359)	9.6	(4,040)	(5,637)	71.7
Other (exp)/inc	32	(115)	(9)	(20)	84	162.5	55	(43)	(128.8)
<b>EBIT</b>	<b>939</b>	<b>1,656</b>	<b>381</b>	<b>1,426</b>	<b>776</b>	<b>(17.4)</b>	<b>2,583</b>	<b>5,850</b>	<b>44.2</b>
Finance cost	(92)	(154)	(166)	(170)	(195)	112.0	(531)	(706)	75.2
Other inc/(exp)	(321)	210	315	123	324	nm	762	1,233	61.8
<b>Earnings before taxes</b>	<b>526</b>	<b>1,712</b>	<b>530</b>	<b>1,379</b>	<b>905</b>	<b>72.1</b>	<b>2,814</b>	<b>6,377</b>	<b>44.1</b>
Income tax	74	(171)	(101)	(436)	(192)	(359.5)	(729)	(1,080)	67.5
<b>Earnings after taxes</b>	<b>600</b>	<b>1,541</b>	<b>429</b>	<b>943</b>	<b>713</b>	<b>18.8</b>	<b>2,085</b>	<b>5,296</b>	<b>39.4</b>
Equity income	34	117	9	71	49	44.1	129	172	74.9
Minority interest	33	21	28	46	44	nm	118	(24)	(493.9)
<b>Earnings from cont. operations</b>	<b>667</b>	<b>1,679</b>	<b>466</b>	<b>1,060</b>	<b>806</b>	<b>20.8</b>	<b>2,332</b>	<b>5,445</b>	<b>42.8</b>
Forex gain/(loss) & unusual items	-	-	-	-	-	nm	-	(690)	-
<b>Net profit</b>	<b>667</b>	<b>1,679</b>	<b>466</b>	<b>1,060</b>	<b>806</b>	<b>20.8</b>	<b>2,332</b>	<b>4,755</b>	<b>49.0</b>
Recurring profit	667	1,679	466	1,060	806	20.8	2,332	5,314	43.9
EBITDA	1,457	2,849	885	2,044	1,392	(4.5)	4,321	9,745	44.3
Recurring EPS (€)	0.850	2.131	0.591	1.340	1.020	20.0	2.951	6.727	43.9
Reported EPS (€)	0.850	2.138	0.591	1.340	1.020	20.0	2.955	6.028	49.0
<b>Profits (%)</b>	<b>3Q22</b>	<b>4Q22</b>	<b>1Q23</b>	<b>2Q23</b>	<b>3Q23</b>	<b>Diff (%)</b>	<b>9M23</b>	<b>23E</b>	<b>Diff (%)</b>
Gross margin	16.1	17.0	14.1	18.0	13.8	(2.4)	15.4	18.0	2.6
Operating margin	7.1	8.0	3.2	9.0	5.2	(1.8)	6.1	9.1	3.1
Net margin	5.0	8.1	4.0	6.7	5.4	0.4	5.5	7.4	1.9

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- AIR reported 3Q23 recurring EPS of €1.02, which was +20.0% YoY and -23.9% QoQ
- The 9M23 result was 43.9% of our full-year forecast

# COMPETITIVE ADVANTAGE



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**Is the company  
financially world class?**



Here's the method I use as  
an **investor** and **business**  
**owner** to measure whether  
a company has a  
**competitive advantage**

# The **World Class** **Benchmarking** score card we developed 10 years ago



# Here's how we construct the scorecard for any company

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Andrew Stotz, PhD, CFA

- ★ We gather the yearly and quarterly financial data of 26,000 companies worldwide
- ★ We then calculate each company's **Profitable Growth** score
  - Which is a composite measure of both profitability and growth

# Here's how we construct the scorecard for any company

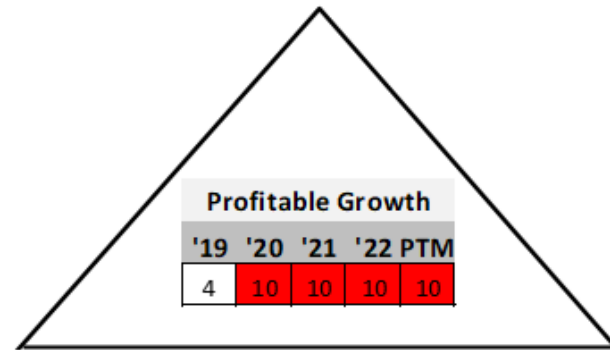
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- ★ After that, we rank the subject company relative to sector peers of similar size
  - Decile ranking is from **1 (best)** to **10 (worst)**
  - A score of **1 or 2** is financially world class
- ★ We assess the company's performance over the prior four years and the past 12 months (PTM)

**Is the company  
financially  
world class?**



**Andrew Stotz, PhD, CFA**

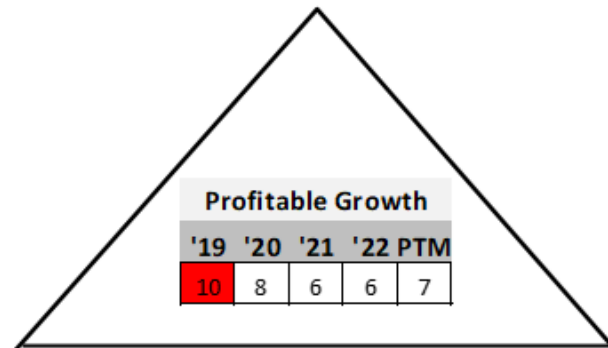
***BOEING***

Benchmarked against 1,480 large Industrials companies worldwide.

Source: A. Stotz Investment Research. Notes: 1 = top ranking and 10 = worst. Most recent year's data is based on the past 12 months (PTM) of published data.

**This is not a recommendation or investment advice.**





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**AIRBUS**

Benchmarked against 1,460 large Industrials companies worldwide.

Source: A. Stotz Investment Research. Notes: 1 = top ranking and 10 = worst. Most recent year's data is based on the past 12 months (PTM) of published data.

**Is your company financially  
world class?**

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**Just message me, and I'll  
score your company**



# VALUATION



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# Free cash flow

(YE Dec, € m)	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E
EBIT	1,667	5,180	5,191	5,850	6,196	6,578	6,915	7,196
Est tax rate (%)	-	17	19	19	19	19	19	19
<b>NOPAT</b>	<b>1,667</b>	<b>4,294</b>	<b>4,204</b>	<b>4,739</b>	<b>5,019</b>	<b>5,329</b>	<b>5,601</b>	<b>5,829</b>
Add: Depre & amort	2,831	2,325	2,716	3,722	3,843	3,967	4,095	4,228
<b>Cash NOPAT</b>	<b>4,498</b>	<b>6,619</b>	<b>6,920</b>	<b>8,461</b>	<b>8,862</b>	<b>9,296</b>	<b>9,696</b>	<b>10,057</b>
Chg in A/R	625	227	(421)	(448)	(448)	(304)	(224)	(137)
Chg in inventory	1,149	1,863	(3,664)	(3,542)	(2,072)	(2,269)	(2,004)	(1,684)
Chg in oth curr asst	842	523	(1,409)	(429)	(410)	(332)	(293)	(246)
Chg in A/P	(6,086)	971	3,568	891	344	202	209	231
Chg in oth curr liabs	(7,219)	(1,799)	1,015	3,301	2,536	2,573	1,503	1,078
<b>Less: Chg in work cap</b>	<b>(10,689)</b>	<b>1,785</b>	<b>(911)</b>	<b>(229)</b>	<b>(49)</b>	<b>(130)</b>	<b>(810)</b>	<b>(757)</b>
Less: CAPEX	(1,531)	(1,406)	(2,363)	(1,990)	(2,072)	(2,136)	(2,240)	(2,351)
Less: Chg in invest cap								
<b>Free cash flow to firm</b>	<b>(7,722)</b>	<b>6,998</b>	<b>3,646</b>	<b>6,242</b>	<b>6,741</b>	<b>7,030</b>	<b>6,646</b>	<b>6,949</b>
FCF per share (€)	(9.9)	8.9	4.6	7.9	8.5	8.9	8.4	8.7
NOPAT growth (%)	111.8	157.6	(2.1)	12.7	5.9	6.2	5.1	4.1
FCF growth (%)	25.2	190.6	(47.9)	71.2	8.0	4.3	(5.5)	4.6

# Discounted cash flow analysis

## Calculation of cost of equity (COE, %) Estimate

### Market: France

Market risk-free rate	2.4
Market equity risk premium	4.8

**Market return 7.2**

Company beta (x) 1.5

**COE 9.6**

## Calculation of WACC Average

Cost of debt 5.3

Average tax rate 29.7

**After tax cost of debt 3.6**

**Cost of preferred stock -**

Debt as a % of total capital 19.7

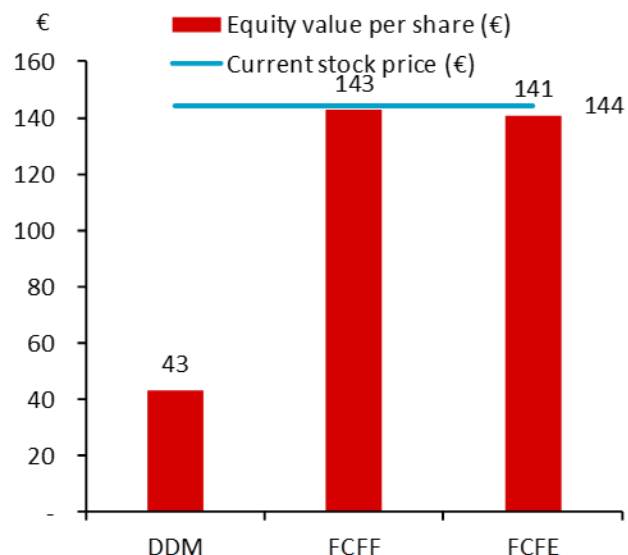
Preferred stock as a % of total capital -

Equity market value as a % of total capital 80.3

**Weighted average cost of capital 8.5**

## AIR: Valuation (€ m) DDM % FCFF % FCFE %

PV of cash flow in years 2023-27	5,781	17	26,050	23	20,022	18
PV of fade period	11,187	33	30,483	27	26,435	24
PV of terminal value	16,958	50	42,112	37	33,900	30
<b>Present value of future cash flows</b>	<b>33,926</b>	<b>100</b>	<b>98,644</b>	<b>87</b>	<b>80,357</b>	<b>72</b>
Add: Cash & ST investments	na*	-	18,547	16	18,547	17
Add: Long-term investments	na	-	12,298	11	12,298	11
<b>Corporate value</b>	<b>33,926</b>	<b>100</b>	<b>129,489</b>	<b>115</b>	<b>111,202</b>	<b>100</b>
Less: Total debt, preferred stock & minorities	na	-	(16,662)	(15)	na	-
<b>Shareholder value</b>	<b>33,926</b>	<b>100</b>	<b>112,827</b>	<b>100</b>	<b>111,202</b>	<b>100</b>
Number of shares (m)	790		790		790	
<b>Equity value per share (€)</b>	<b>43</b>		<b>143</b>		<b>141</b>	



# Multiple valuation



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PE ratio (x)	2021A	2022A	2023E	2024E
AIR	18.3	20.9	21.4	19.8
France	22.1	20.6	18.7	16.8
Asia ex Japan	11.9	12.0	14.4	12.4
World	19.1	20.1	19.7	17.9

## EPS growth (%)

AIR	346.0	2.7	15.0	8.1
France	70.0	31.3	10.4	11.0
Asia ex Japan	69.8	(3.7)	(16.7)	15.6
World	83.6	12.8	1.6	10.0

PB ratio (x)	2021A	2022A	2023E	2024E
AIR	8.6	7.4	6.9	5.6
France	2.9	3.3	3.1	2.8
Asia ex Japan	1.2	1.2	1.2	1.1
World	3.0	3.4	3.2	3.0

## ROE (%)

AIR	53.0	37.9	32.3	28.5
France	13.0	16.0	16.5	16.7
Asia ex Japan	10.1	10.3	8.3	9.0
World	15.6	16.9	16.4	16.7

# What is your company worth?

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**Message me, and let's discuss  
the value of your company**

