

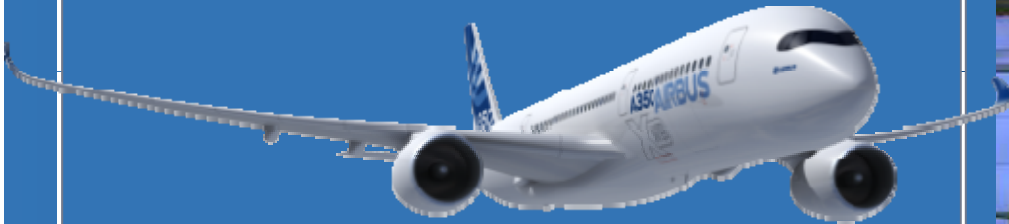
How to Forecast in a Cyclical Industry

David Prevor – Head of Market research and forecasts



What an aircraft manufacturer needs to forecast

Long term : launch of new products



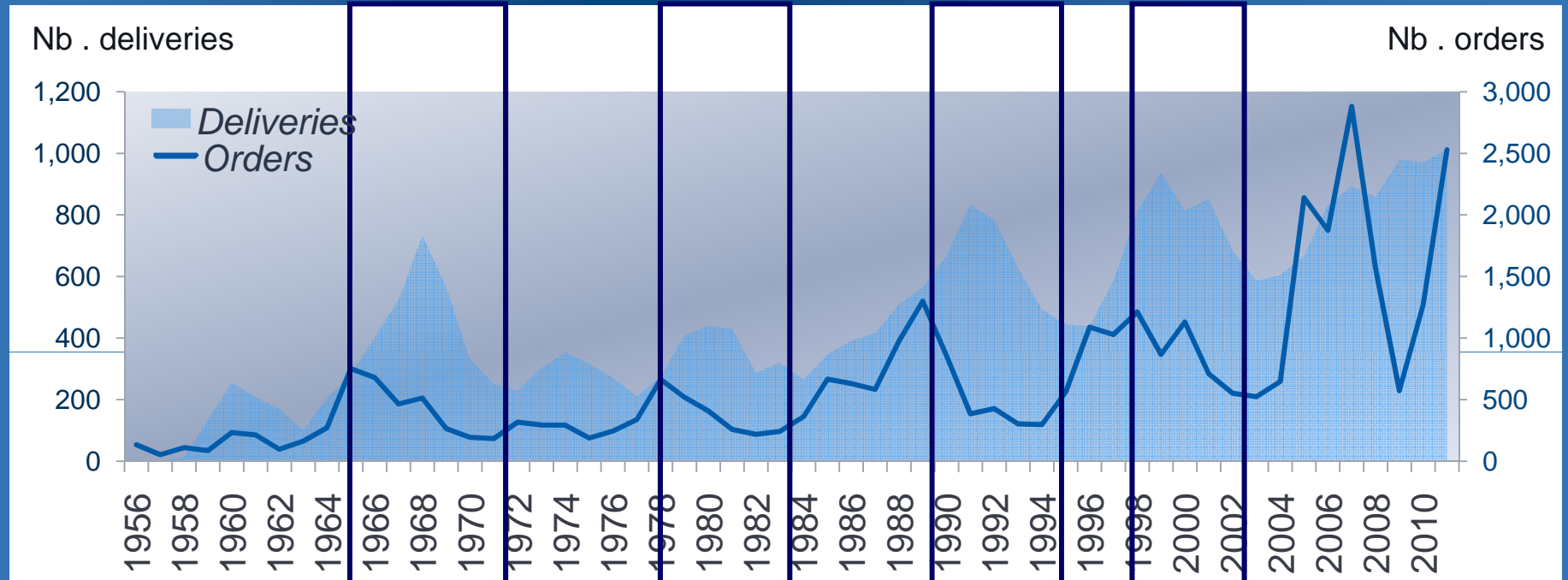
**Total volumes over 20 years
Yearly split of deliveries**

**Short term : production rate
increase / decrease**



**Yearly precise split of
deliveries**

4 significant down cycles in the last 40 years



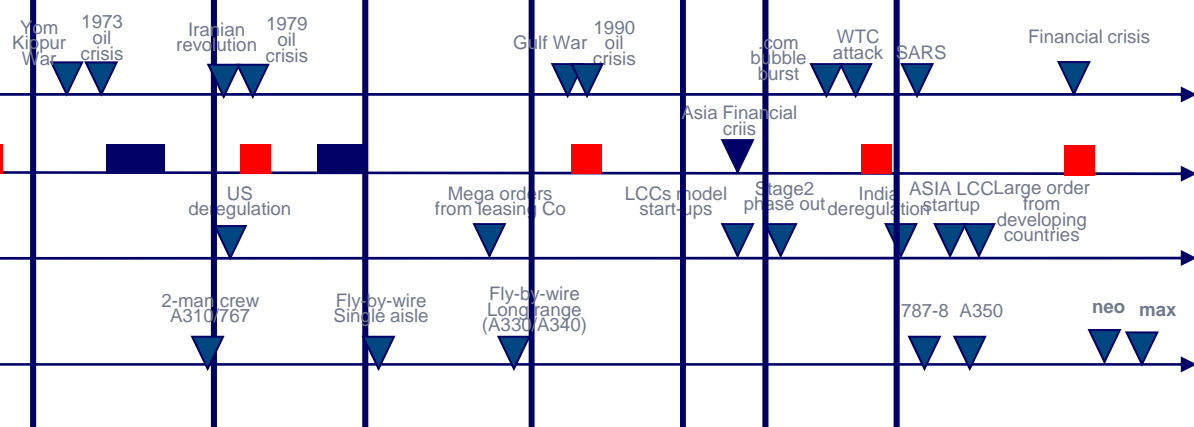
EVENTS

Exogenous

Recession/
Economy

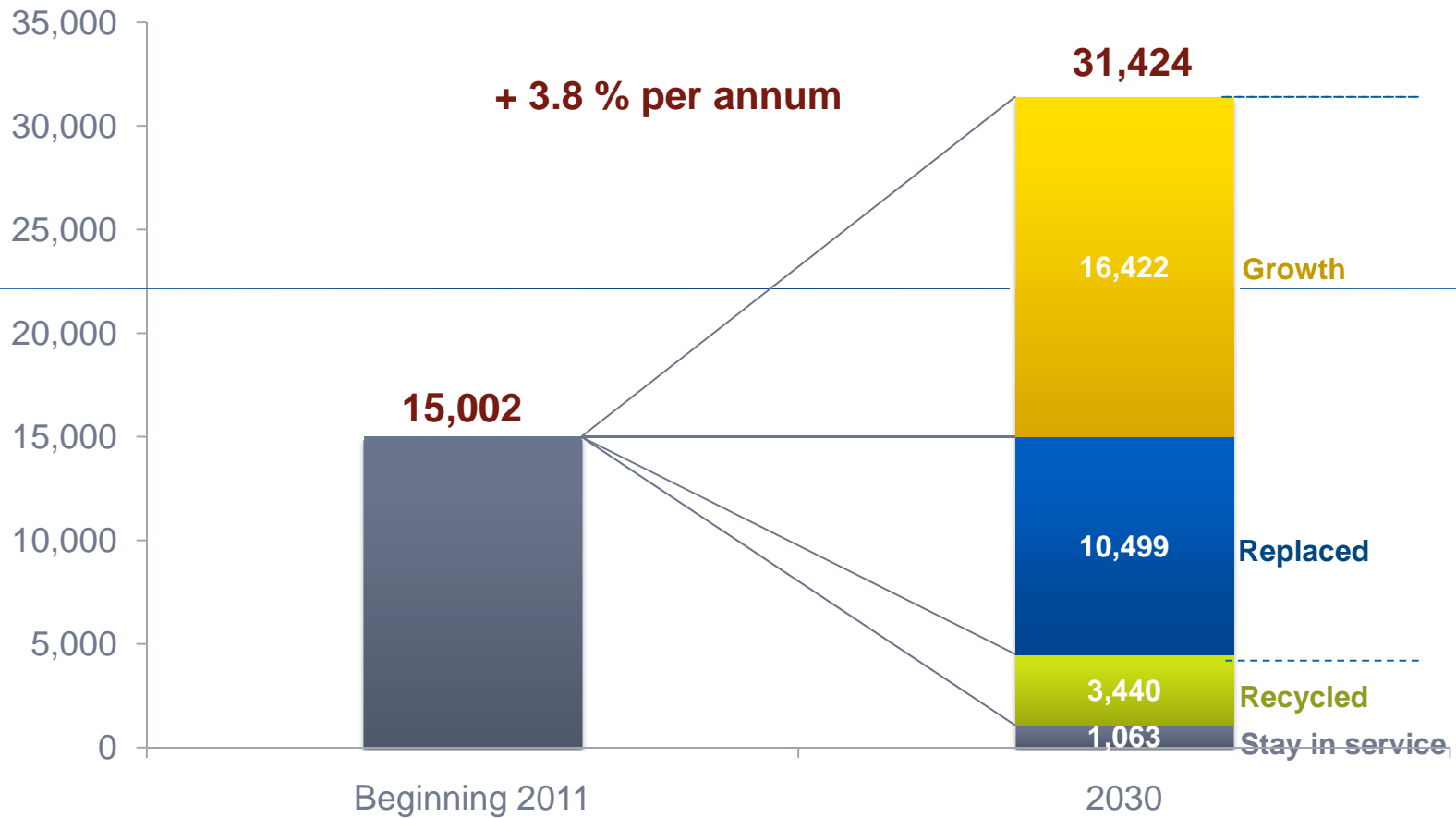
Industry
structural

Aircraft
development
launch



20-year passenger aircraft demand for 26,900 aircraft worth US\$ 3.3 trillion

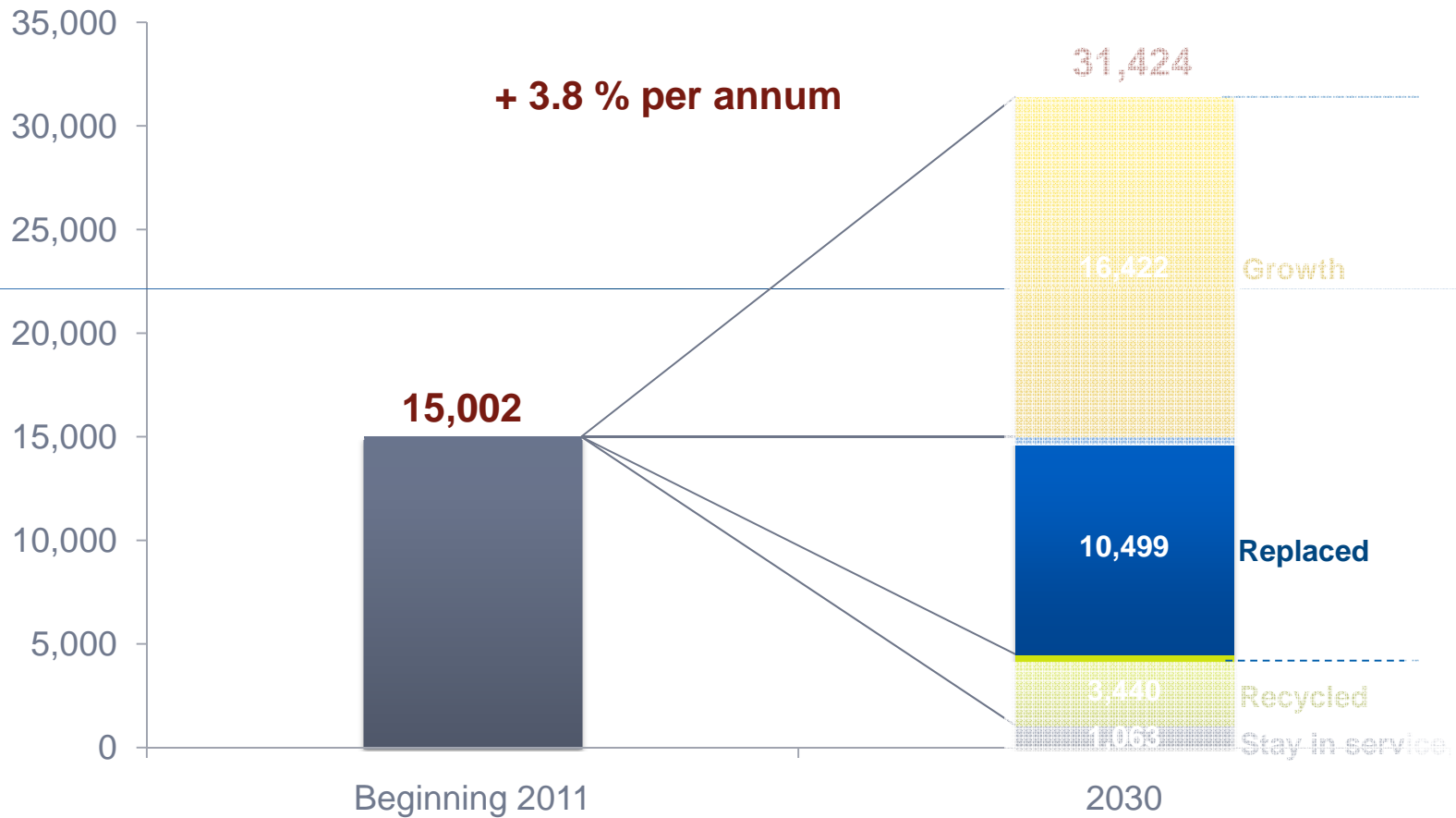
Fleet size



Passenger aircraft ≥ 100 seats (excluding freighters)

20-year passenger aircraft demand for 26,900 aircraft worth US\$ 3.3 trillion

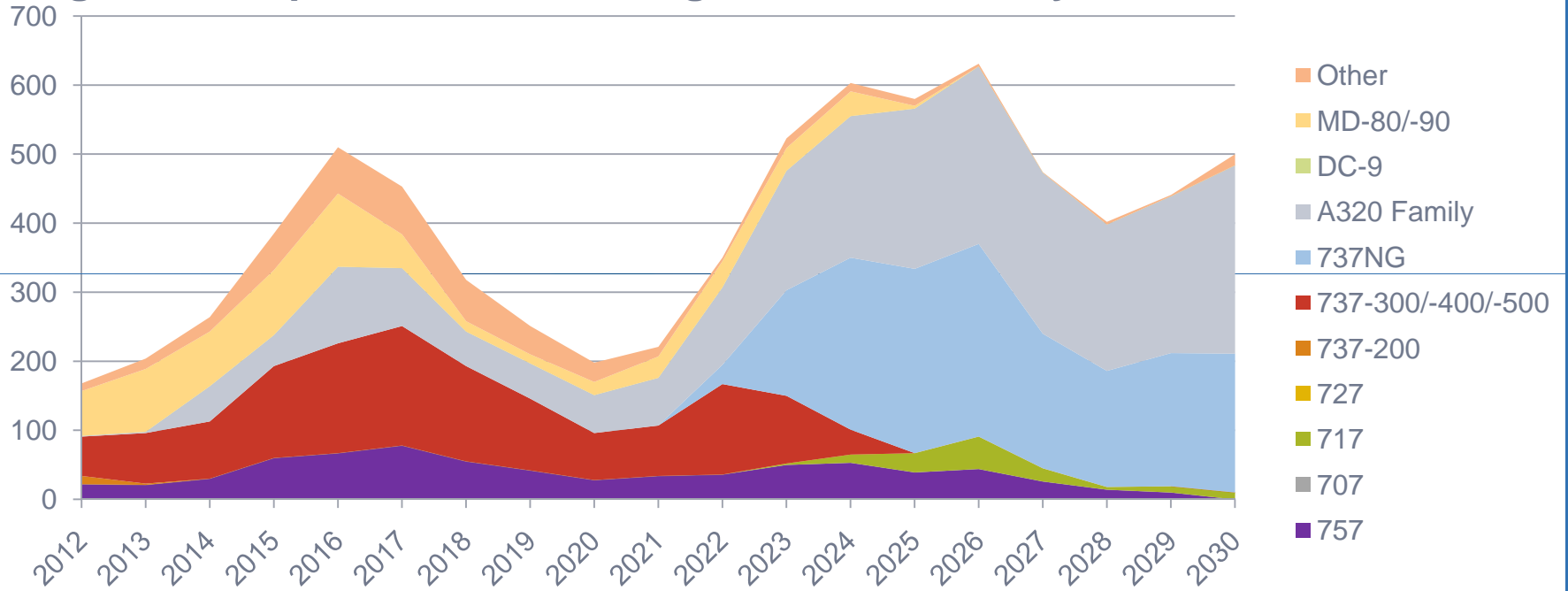
Fleet size



Passenger aircraft ≥ 100 seats (excluding freighters)

Single-aisle replacement waves: Replacements needs influenced by past deliveries cycles but

Single-aisle replacement assuming retirement @ 25 years



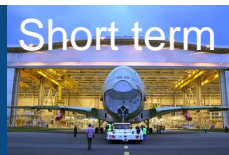
... each airline has its replacement policy

... production rates smooth the peaks

... new products postpone/advance some replacements needs



Long term

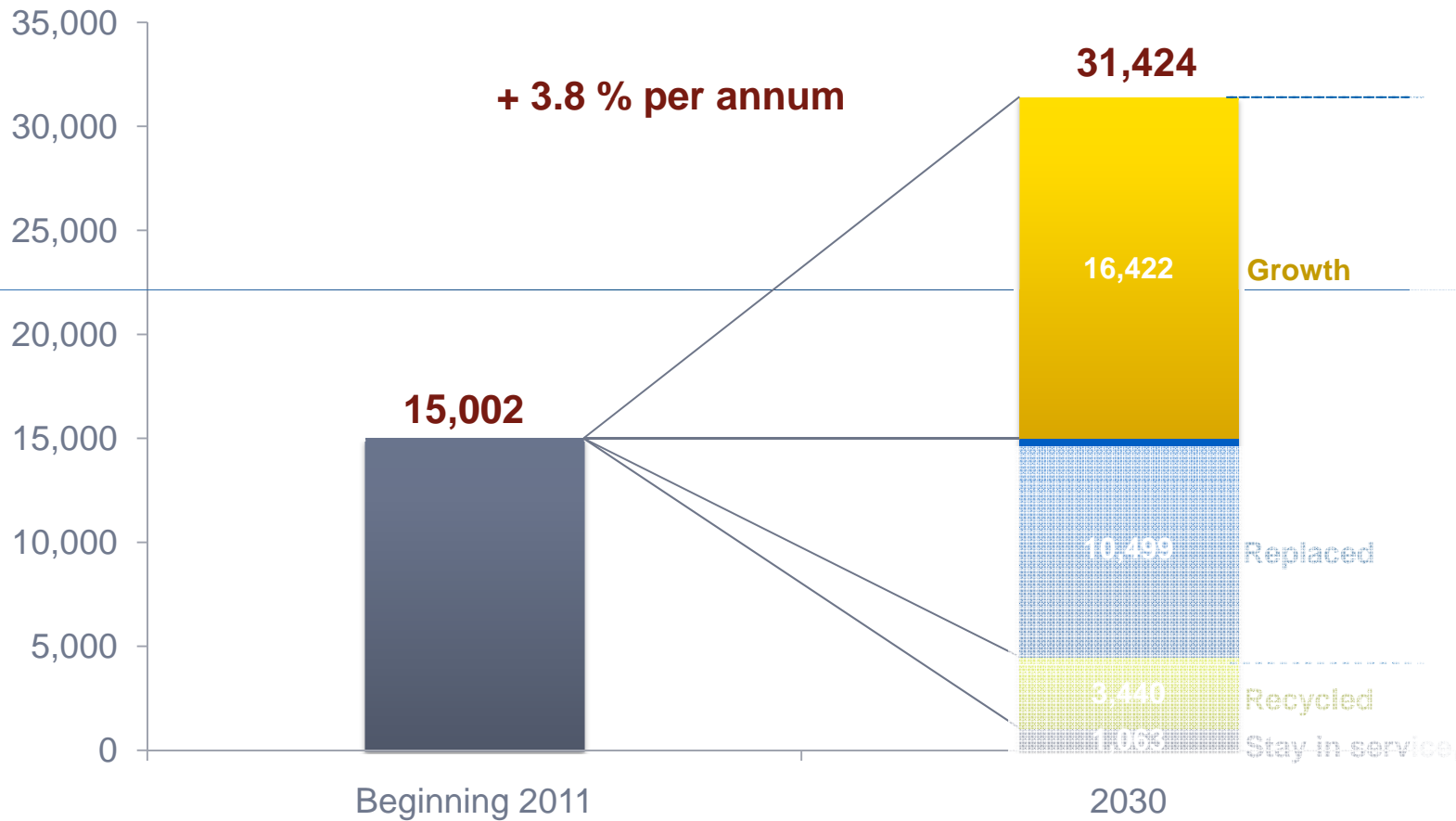


Short term



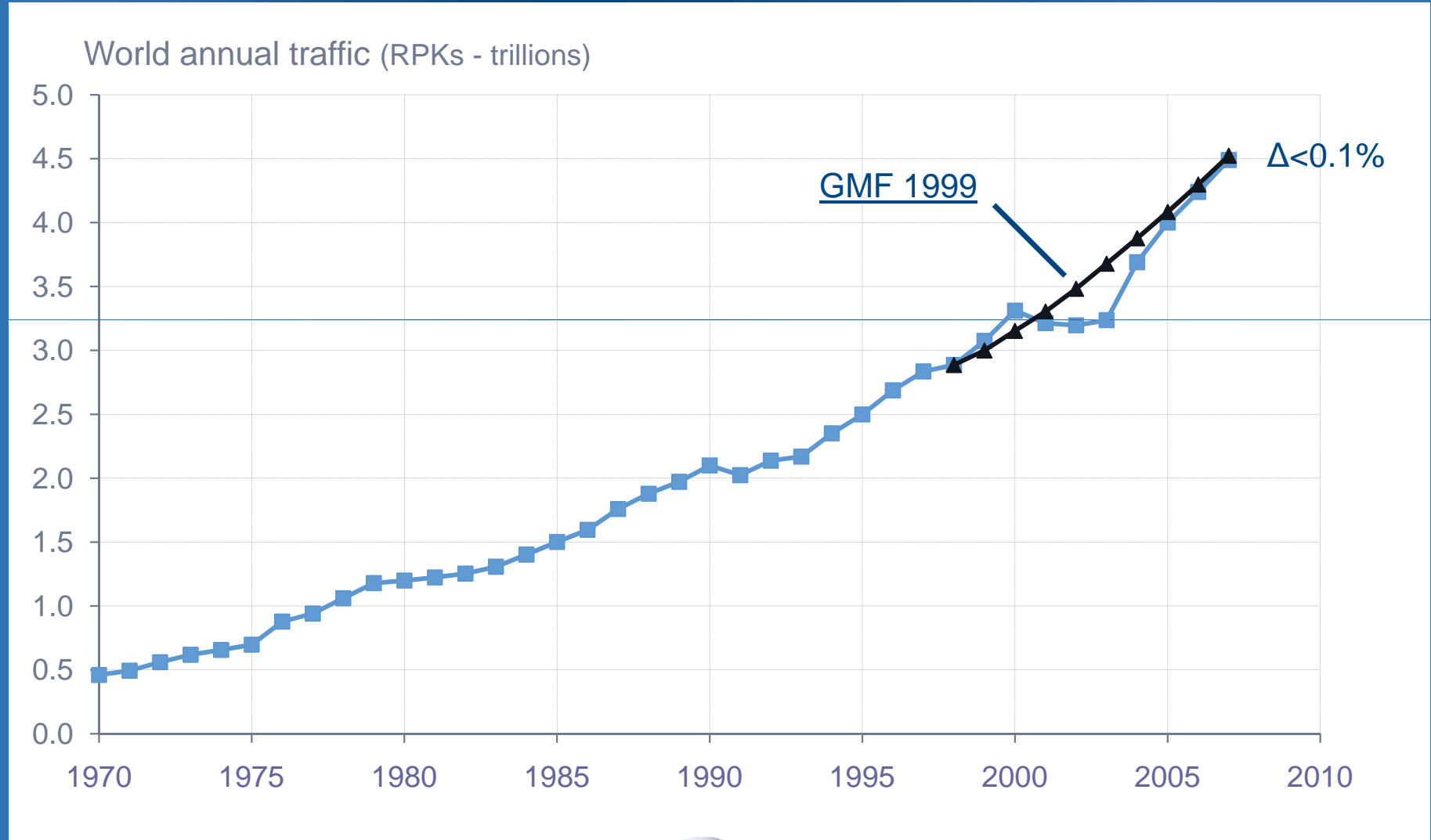
20-year passenger aircraft demand for 26,900 aircraft worth US\$ 3.3 trillion

Fleet size

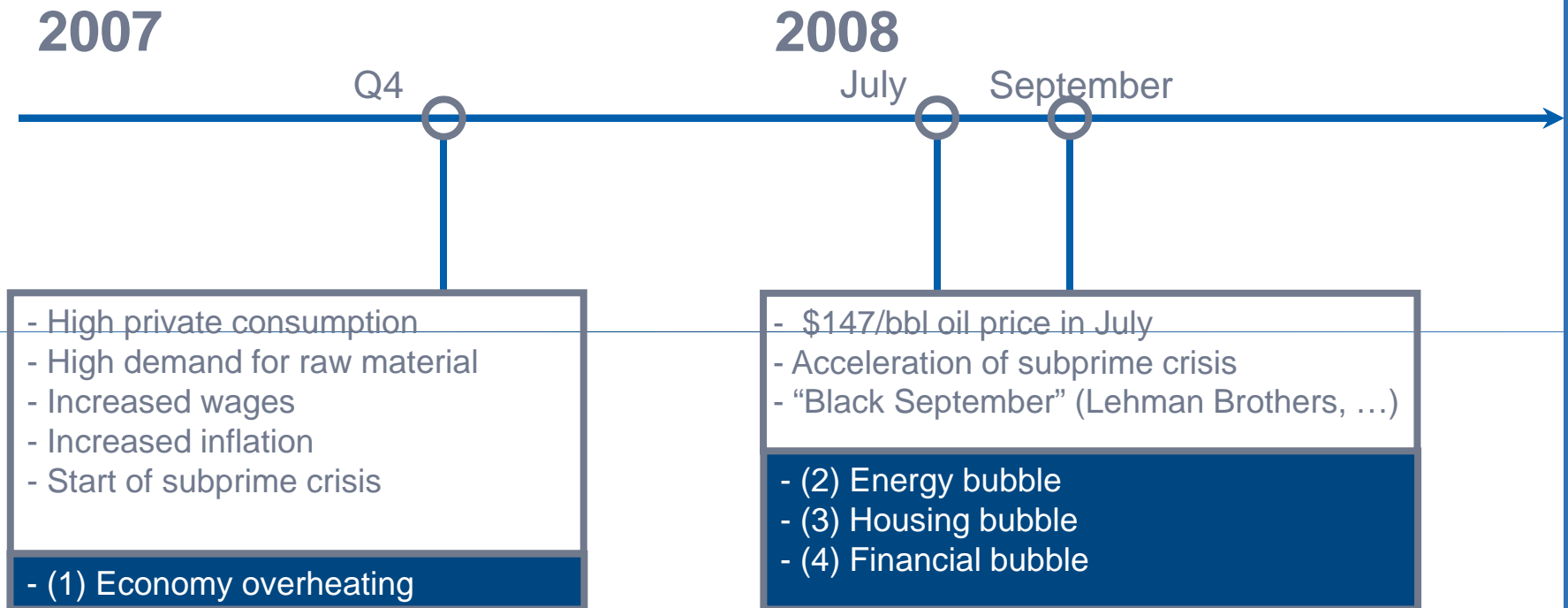


Passenger aircraft ≥ 100 seats (excluding freighters)

The Global Market Forecast is a long-term forecast which accounts for potential crises



Monitoring



- Any of these 4 events could have led to a recession
- All 4 happened in 07/08 with (3) and (4) at the same time
- (3) and (4) burst led to a rapid deepening of recession

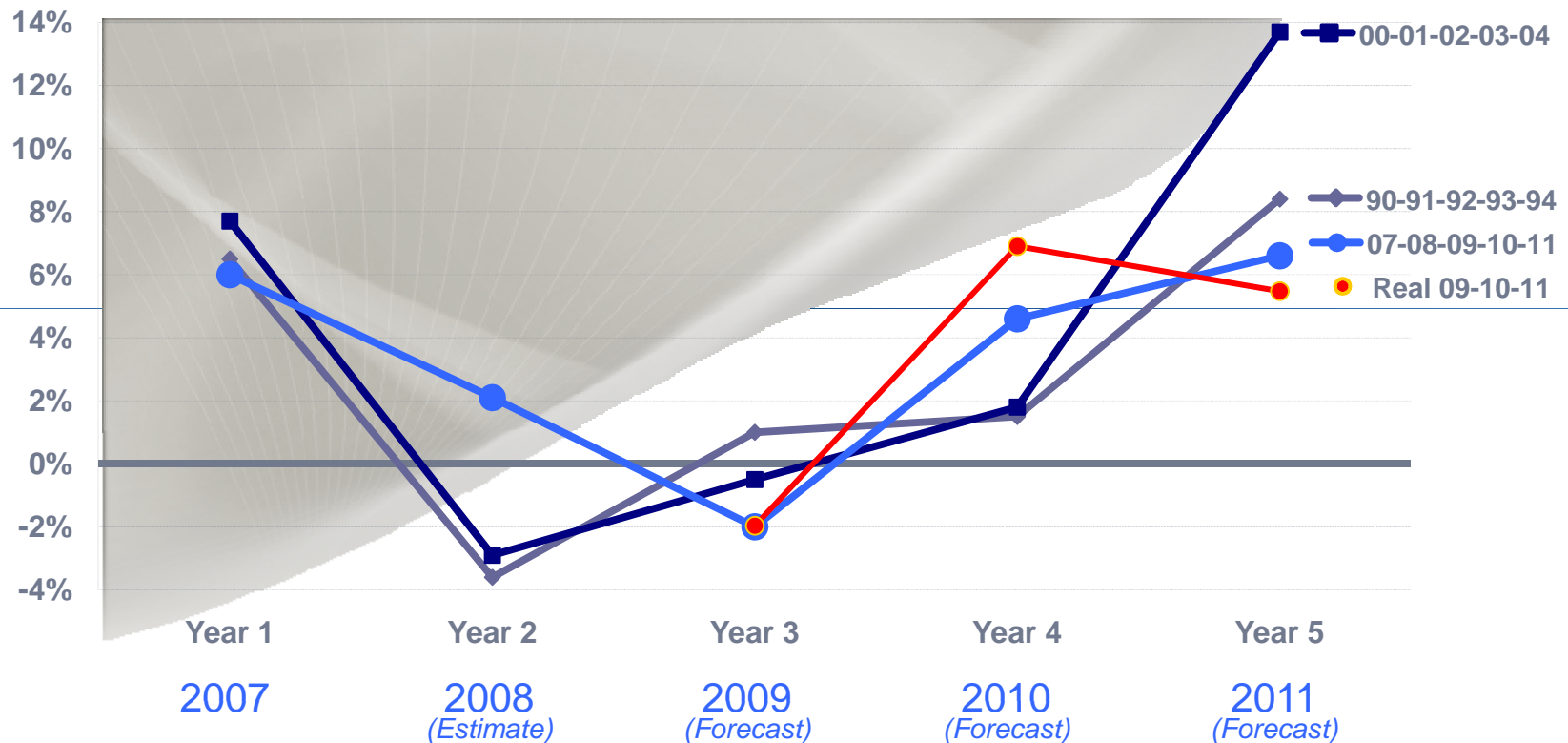
Short term



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Example of short term forecast *(done in Jan 2009)*

World air traffic growth (%RPKs)



but the economical impact of the crisis was already known

Short term

Source: ICAO, Airbus Market Research and Forecasts

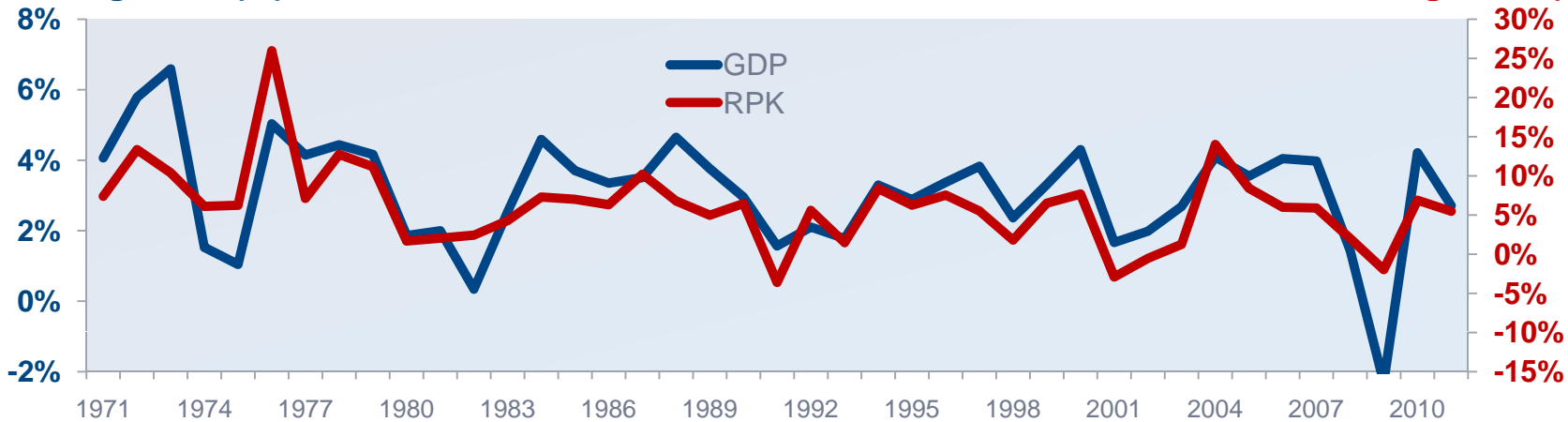


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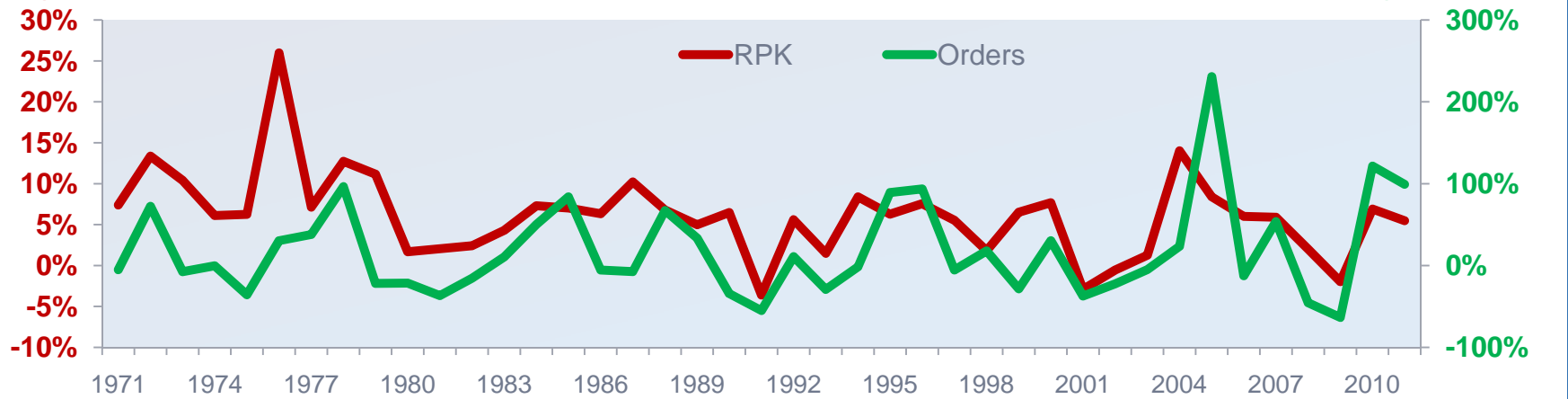


Economic, traffic and orders are correlated

Real GDP growth (%)



RPK growth (%)



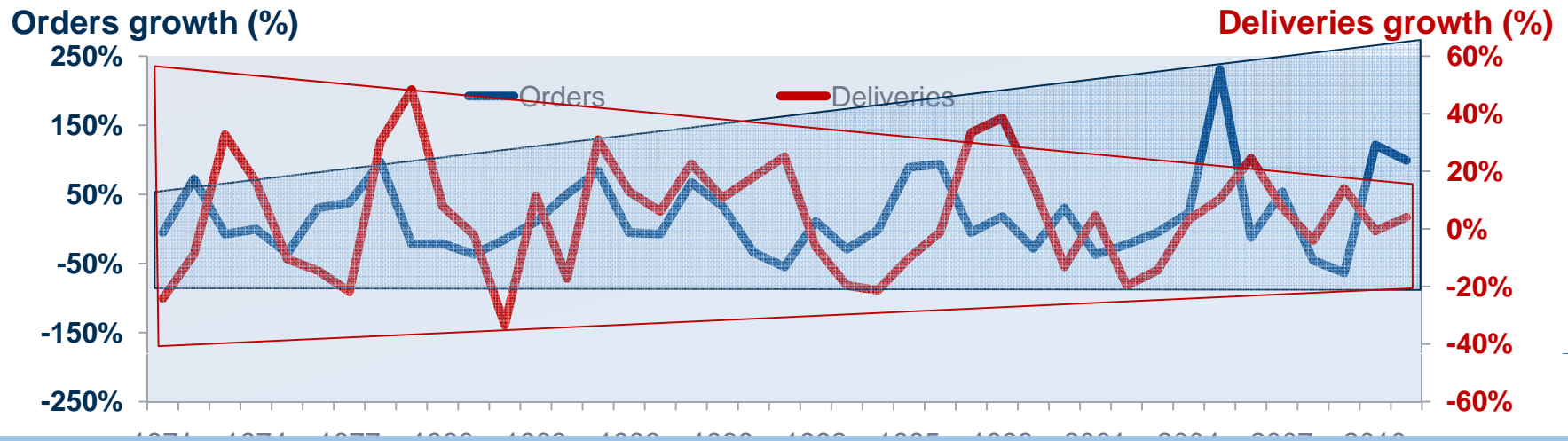
Short term



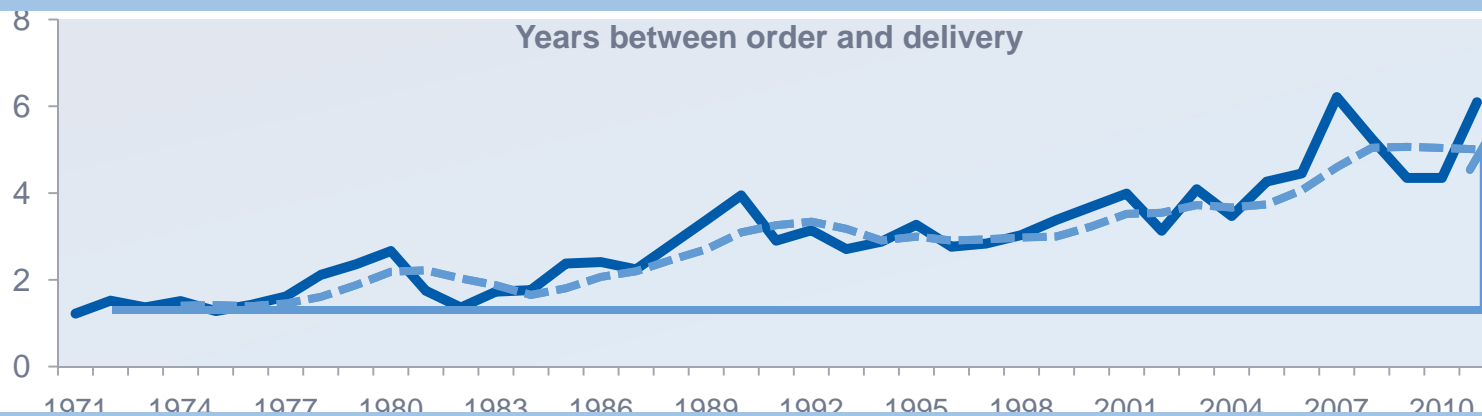
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Order volatility vs production planning



.... orders are more and more volatile
 ... deliveries are more and more stable



... today's backlog offers a better visibility to aircraft manufacturer

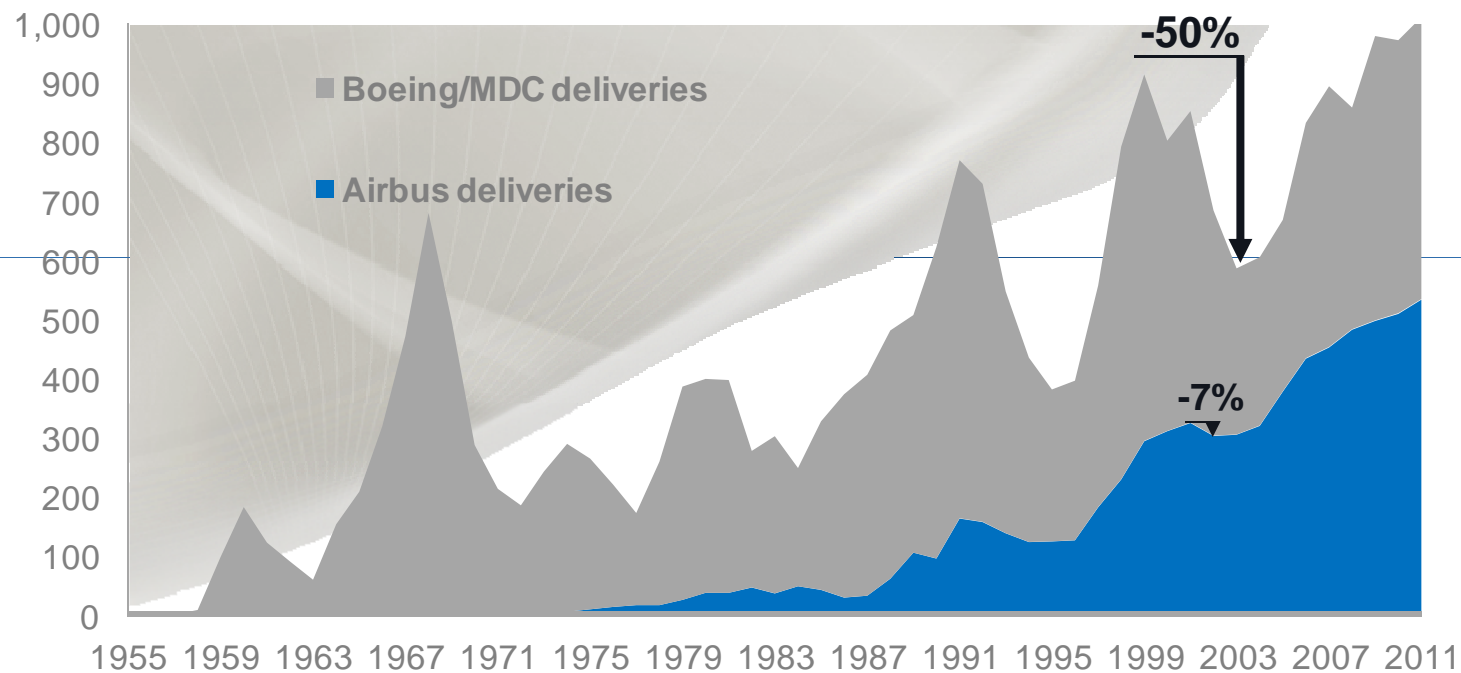
Short term



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Conservative production planning & Backlog management helps against downturns



Short term



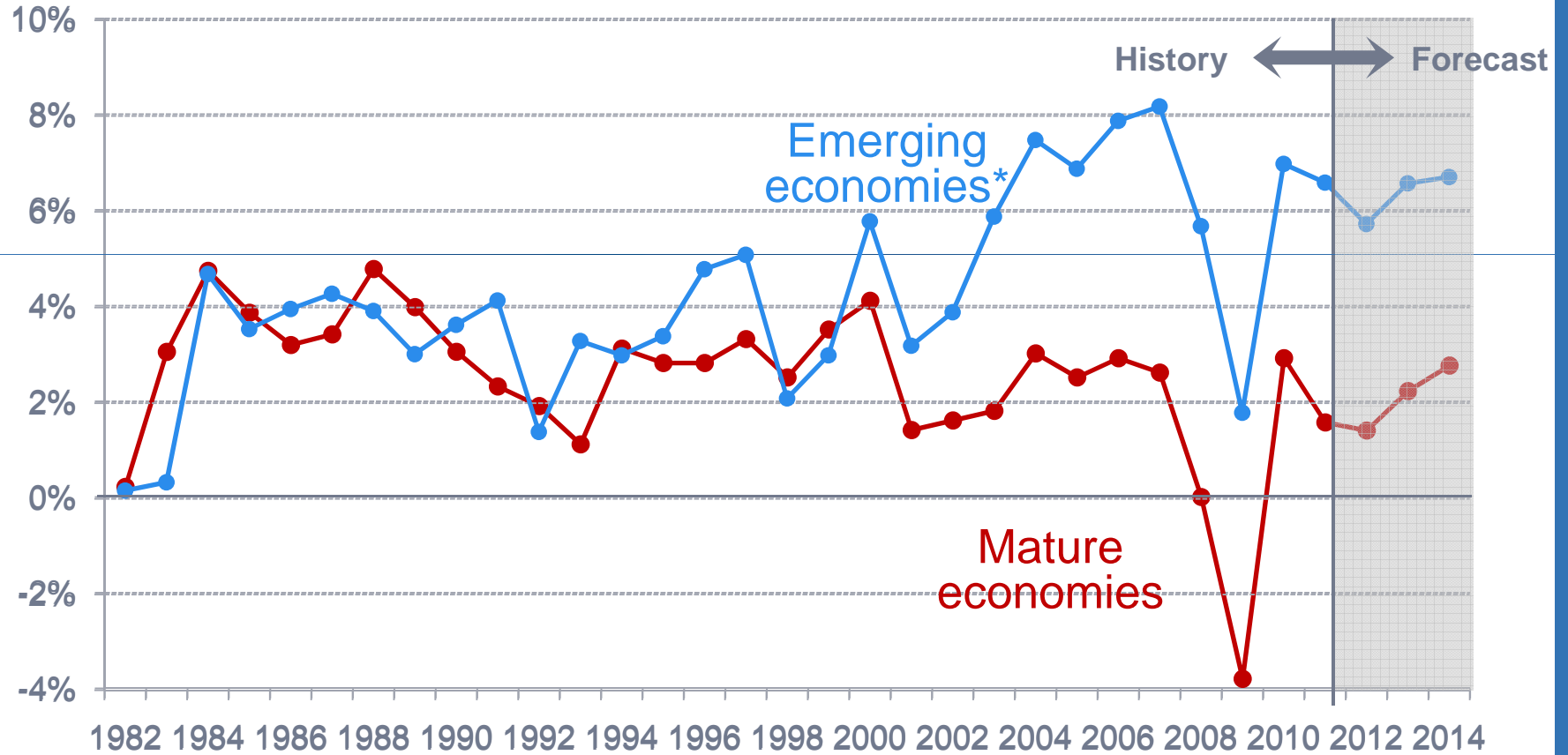
A2- Annual 25 (Sales & Market Shares)

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A two-speed world

Real GDP growth (%)



* 54 emerging economies

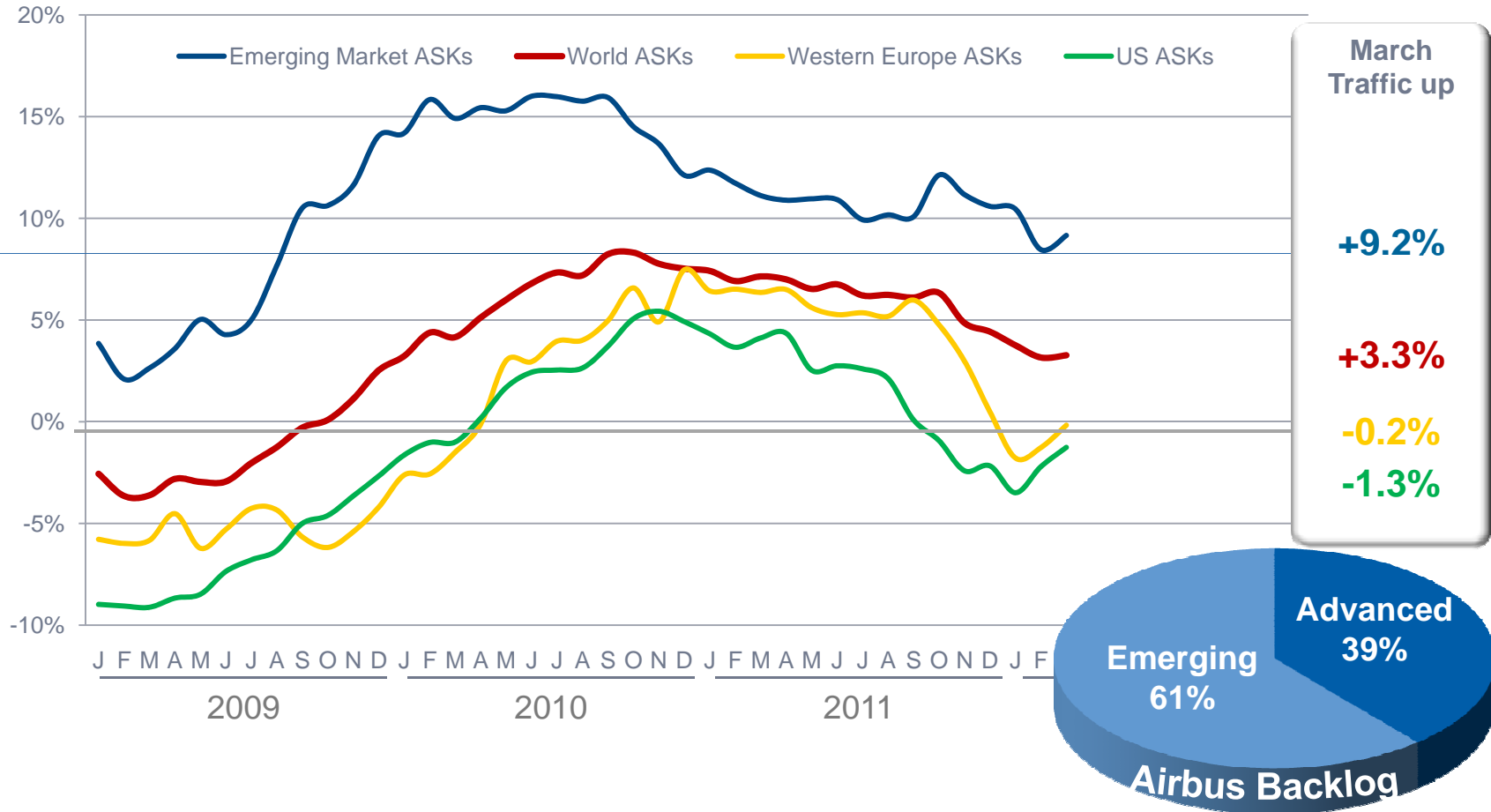


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Emerging markets are leading the way in terms of passenger traffic

Passenger traffic evolution (year-over-year)



Short term

*- Advanced economies include: North America, Western Europe, Japan and Australia
Source : OAG, Ascend

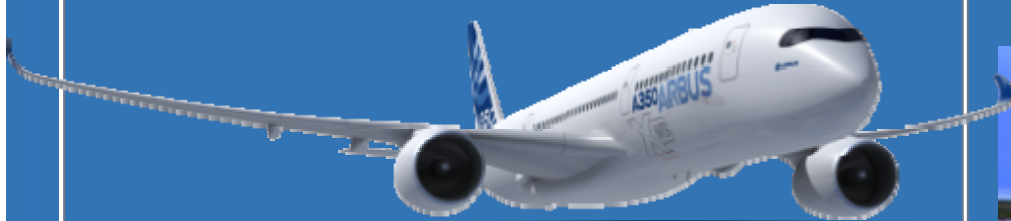


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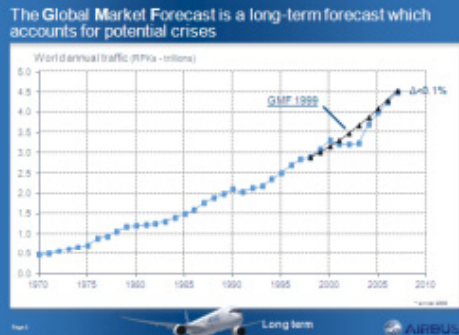


Conclusion

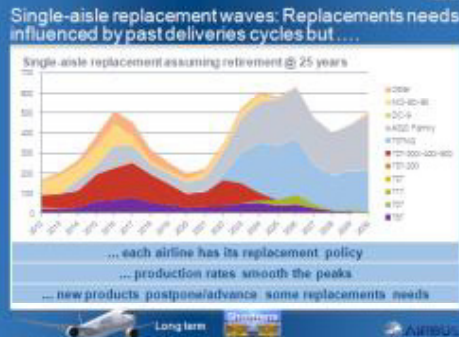
Long term : launch of new products



Average effect included in growth potential



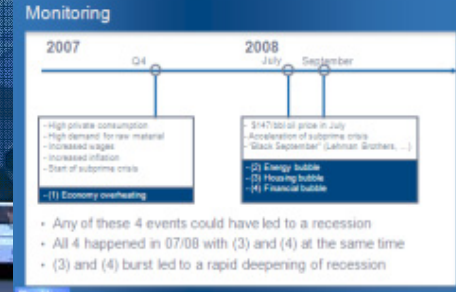
Replacements needs driven by past cycles



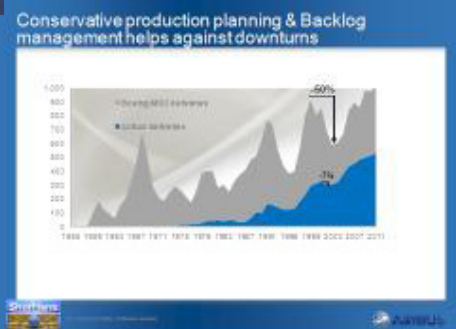
Short term : production rate increase / decrease



Monitoring of first signs of recession



Production rates conservative approach & Backlog management



Cycles are here to stay but their impact can be managed

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