

ICAO AIR TRANSPORT SYMPOSIUM

18 - 20 APRIL 2012



**Strategies and Tools for
Sustainable Air Transport**

**SESSION 4 - HOW TO FORECAST
IN A CYCLICAL INDUSTRY?**

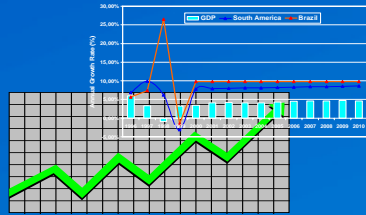
João Alfredo Paiva
Director of Market Strategy



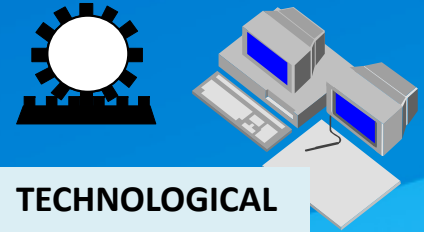


Strategies and Tools for Sustainable Air Transport

MACRO ENVIRONMENT



ECONOMIC ENVIRONMENT



TECHNOLOGICAL ENVIRONMENT

SUPPLIERS

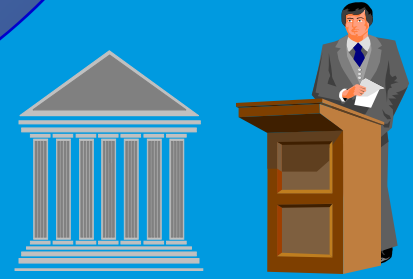


CUSTOMERS

DEMOGRAPHIC, SOCIAL & CULTURAL ENVIRONMENT



POLITICAL & LEGAL ENVIRONMENT

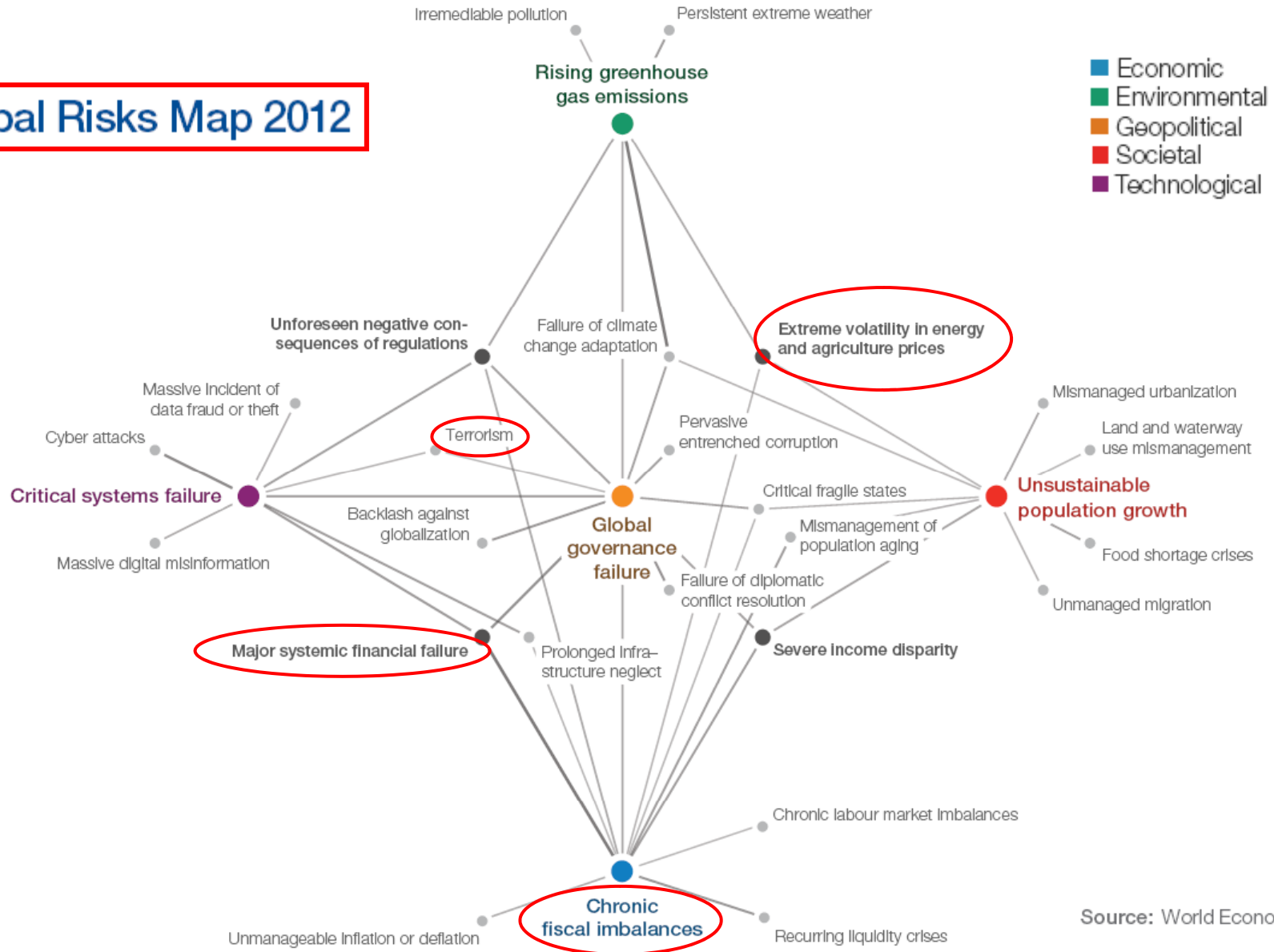


SUBSTITUTES

NEW ENTRANTS



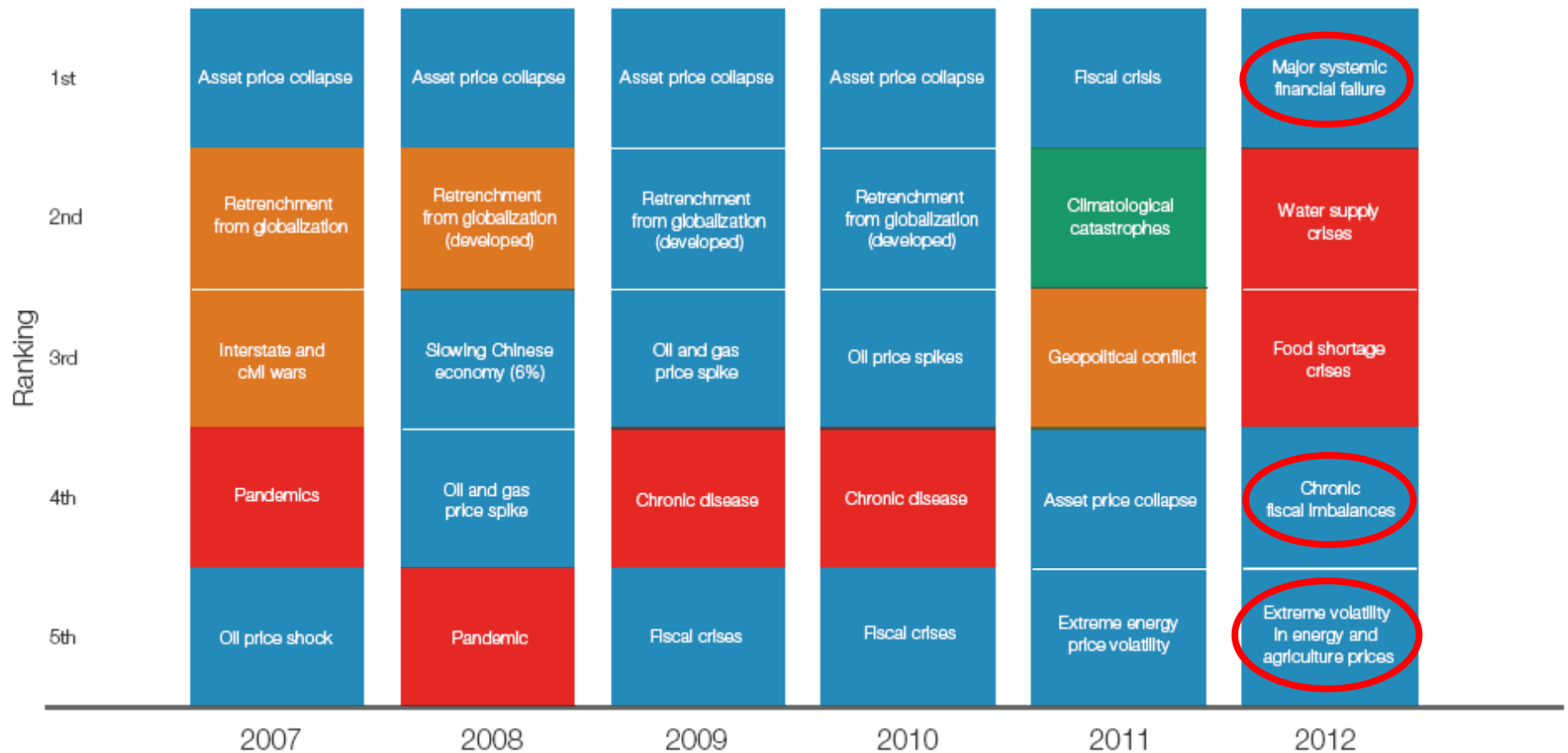
Global Risks Map 2012





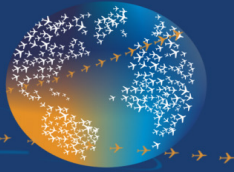
Global Risks Map 2012

Top 5 Global Risks in Terms of Impact

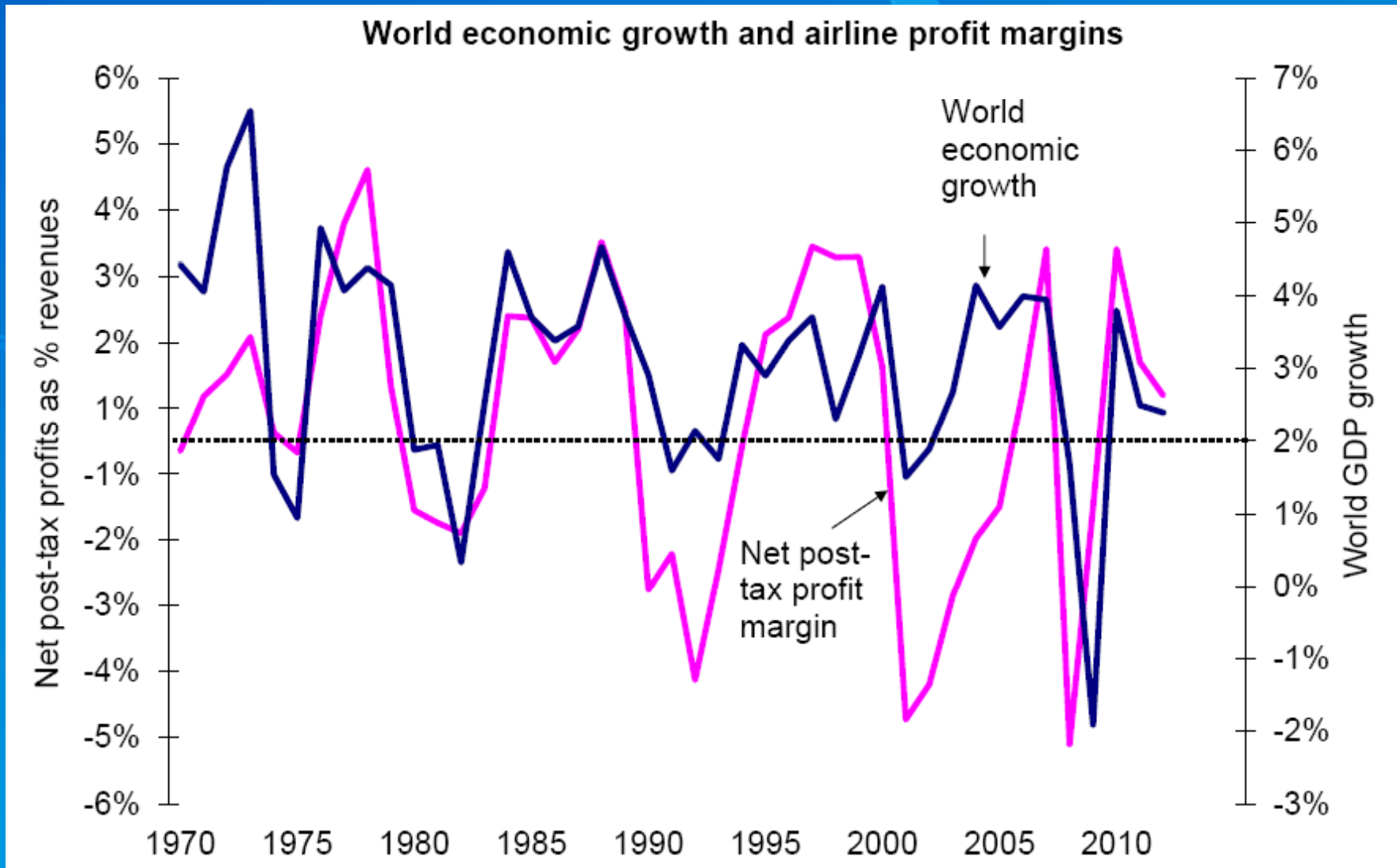


- Economic
- Environmental
- Geopolitical
- Societal
- Technological

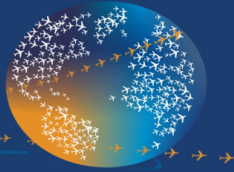
Source: World Economic Forum



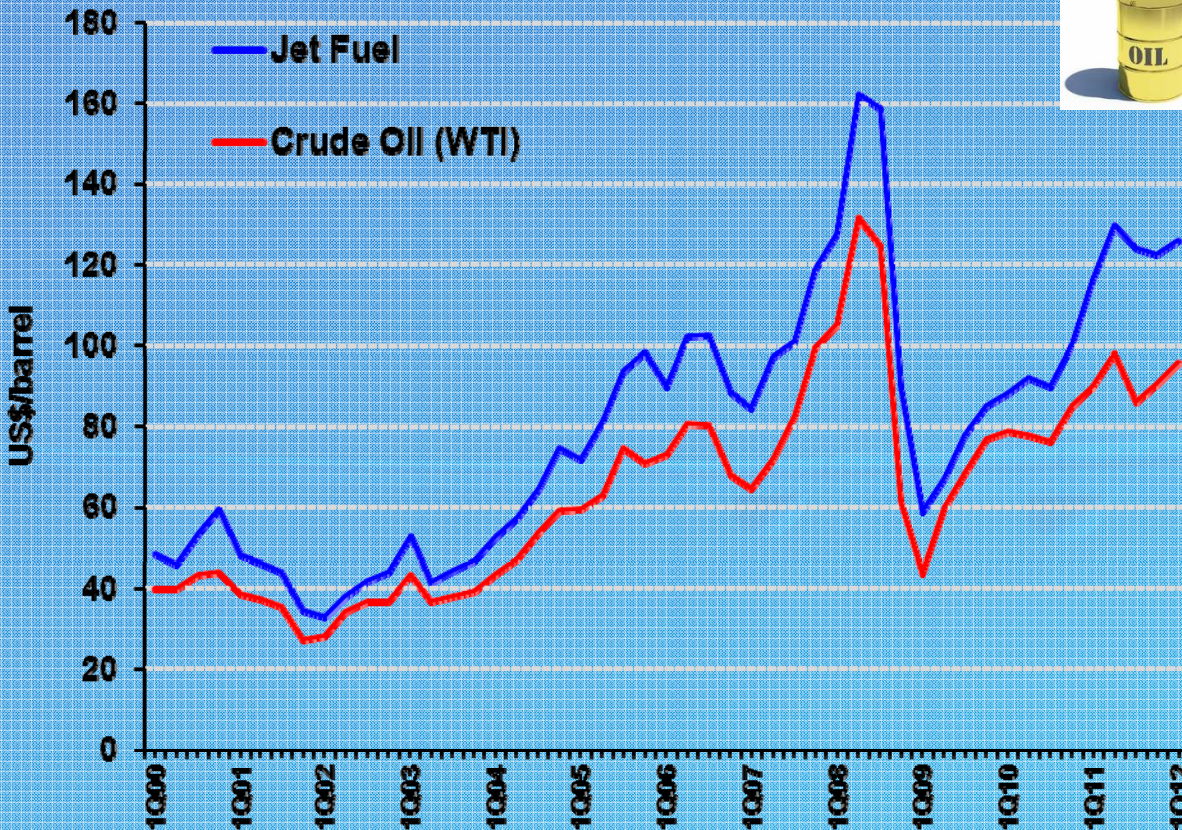
WEAK ECONOMIES MEAN WEAK AIRLINE PROFITS



Source: ICAO, IATA, EIU



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Crude Oil Price Forecast

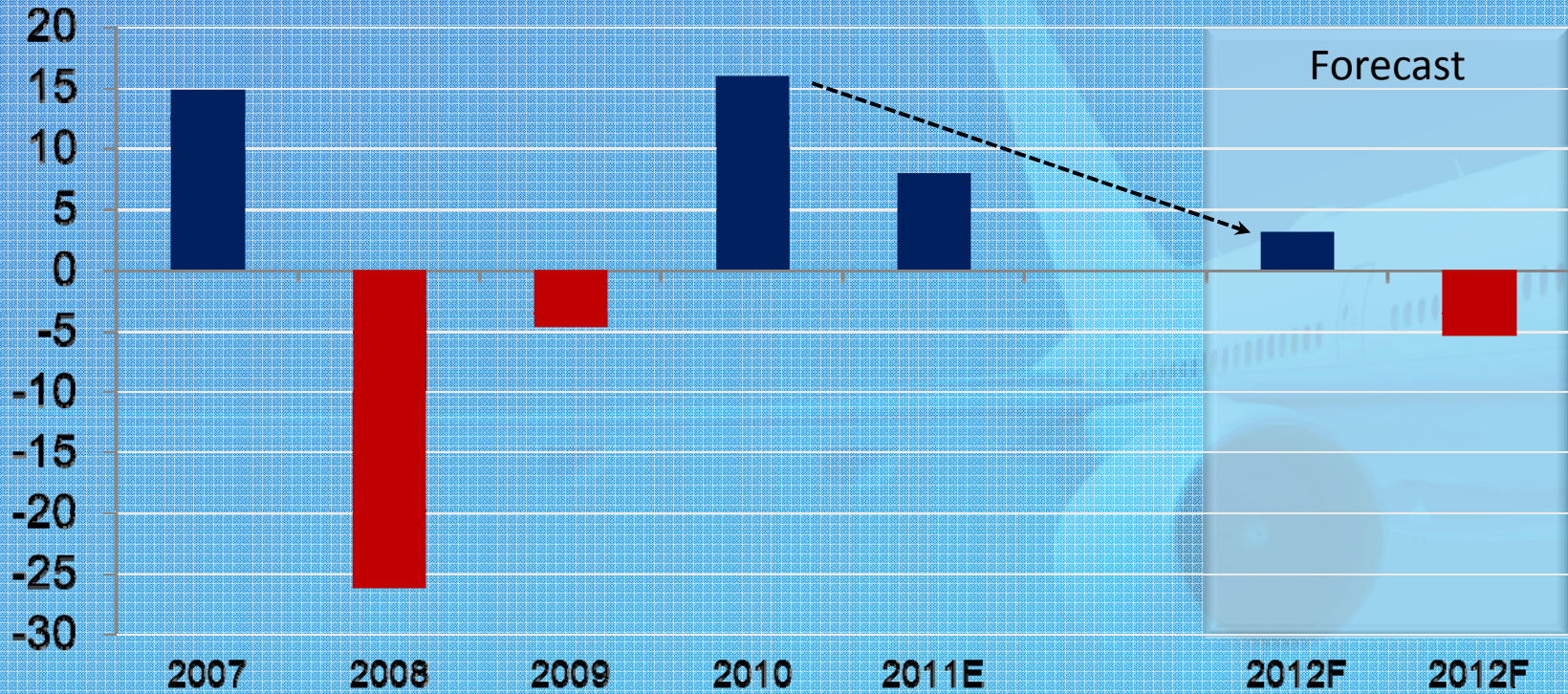
Year	The Economist	IHS GLOBAL INSIGHT
2012	110	98
2013	104	104
2014	108	102
2015	104	96
2016	110	98

Sharply rising oil/jet fuel prices have replaced Eurozone debt as the major downside risk in 2012

Source: EIA - Energy Information Agency, EIU and Global Insight (Mar/2012), Real price 2010 US\$/bbl



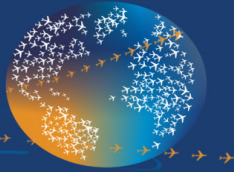
IATA – Net Profit (US\$ billion)



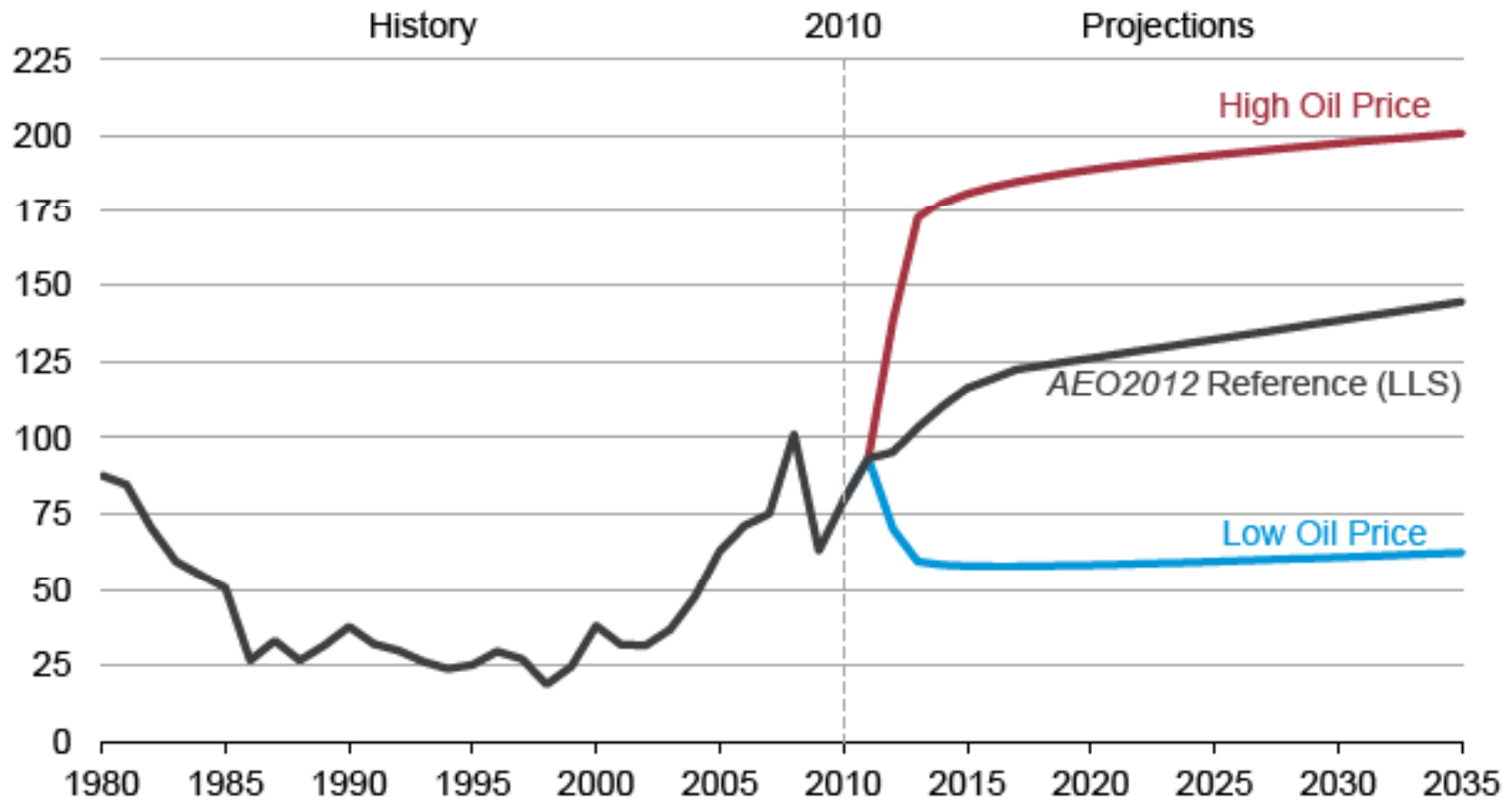
Avg Crude Oil Price (US\$/bbl)	2007	2008	2009	2010	2011E	2012F	2012F
	73	99	62	79	92	115	135

- 2011E → US\$ 7.9bi profit with an average oil \$92/bbl
- 2012F → Central Forecast: US\$ 3.0bi profit with an average oil \$115/bbl
Oil Price Spike Forecast: **US\$ 5.3bi loss with an average oil \$135/bbl**

Source: IATA Mar/2012 (Fuel price: 2012 Central forecast US\$ 115/bbl ; 2012 Oil Price Spike US\$ 135/bbl, after reaching US\$ 150/bbl in 2H12)



annual average price of light low sulfur (LLS) crude oil
real 2010 dollars per barrel

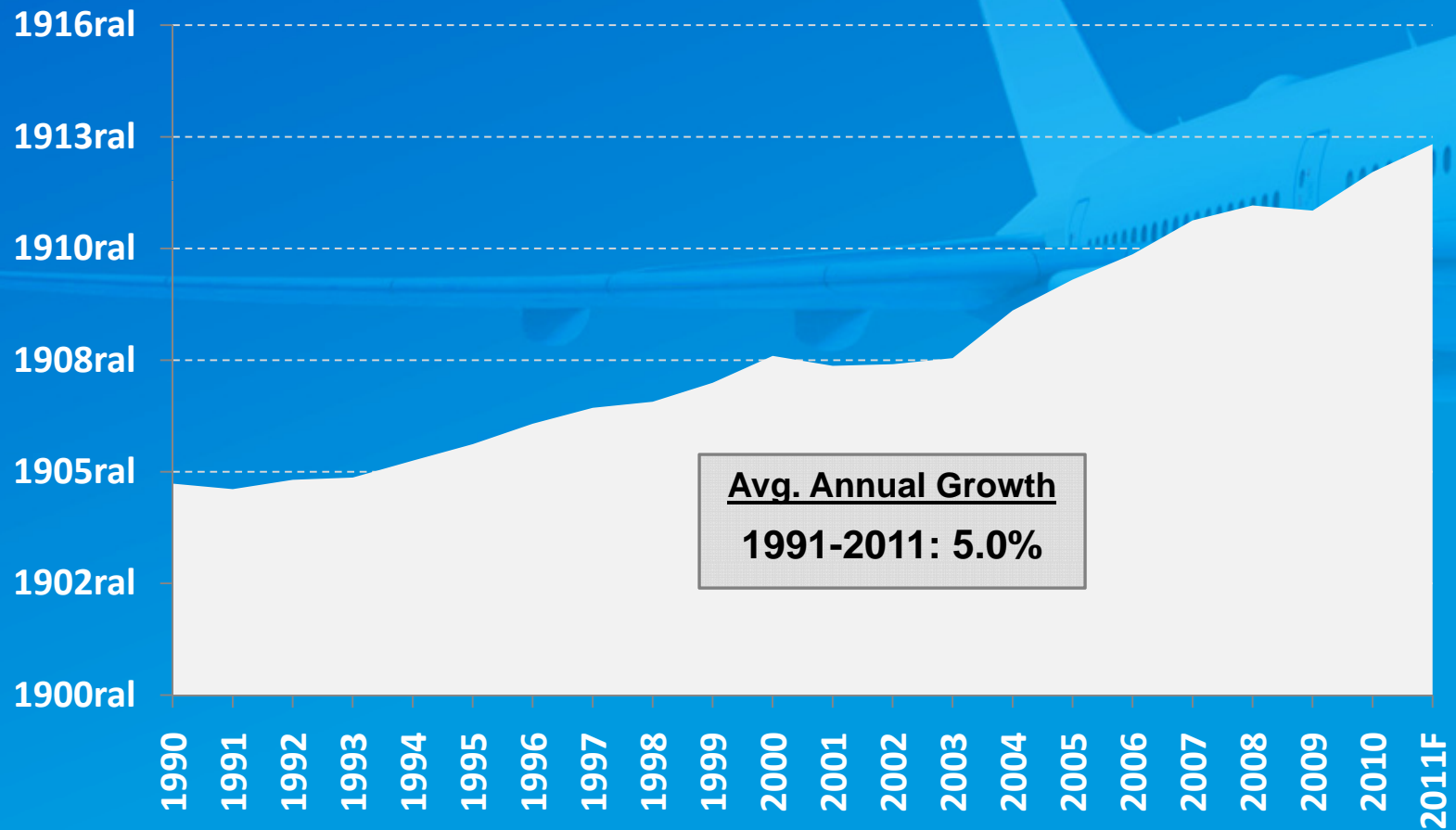


Source: EIA, Annual Energy Outlook 2012 Early Release



Air Transport Demand

RPK (Billions)



Source: ICAO, IATA (Scheduled Services)



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Drivers Monitoring



Market Forecast

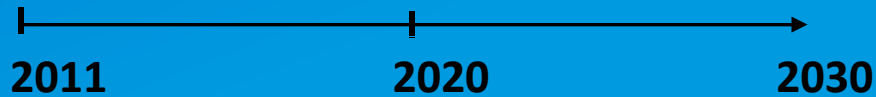
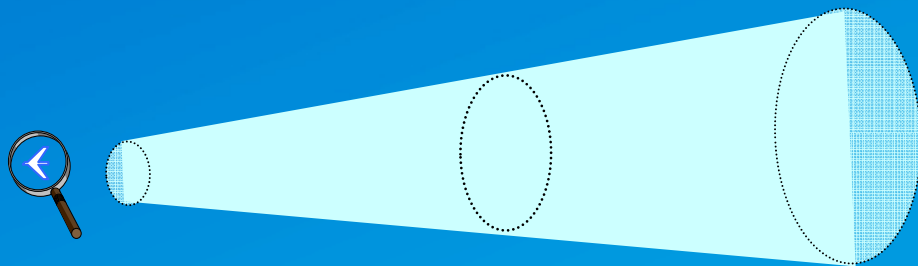


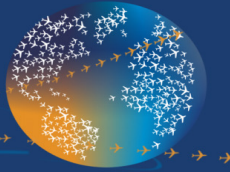
"Top-Down"
and
"Bottom-up"



Market Outlook
2011-2030

EMBRAER
Commercial Jets





Global Trends



Growth of Emerging Markets

- Balance of global economic power shifting to East and South
- Medium and small cities driving economic growth

Increased Competition

- More air services liberalization (Asia and East Europe)
- LCC's expansion (mostly in Asia)

Increased Disposable Income

- Middle class expansion
- New markets to be exploited with smaller jets

Business Efficiency

- Capacity management and cost reduction
- Match aircraft capacity to market demand (right-sizing)

Environmental Pressure

- Emissions and noise restrictions getting tougher
- Development of new technologies (retirement of older jets)
- Use of alternative fuels, lower fuel consumption and emissions

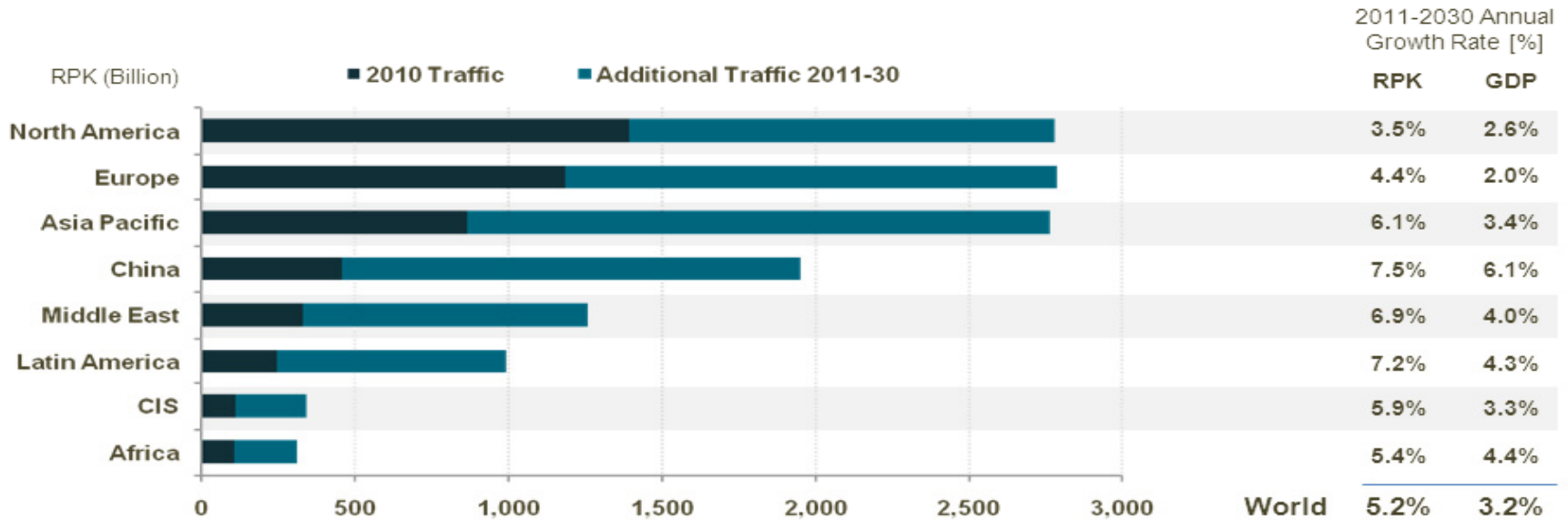


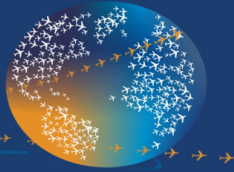
Air Transport Demand by Region

market forecast
By the
numbers



Asia Pacific and China will represent 36% of RPK in 2030



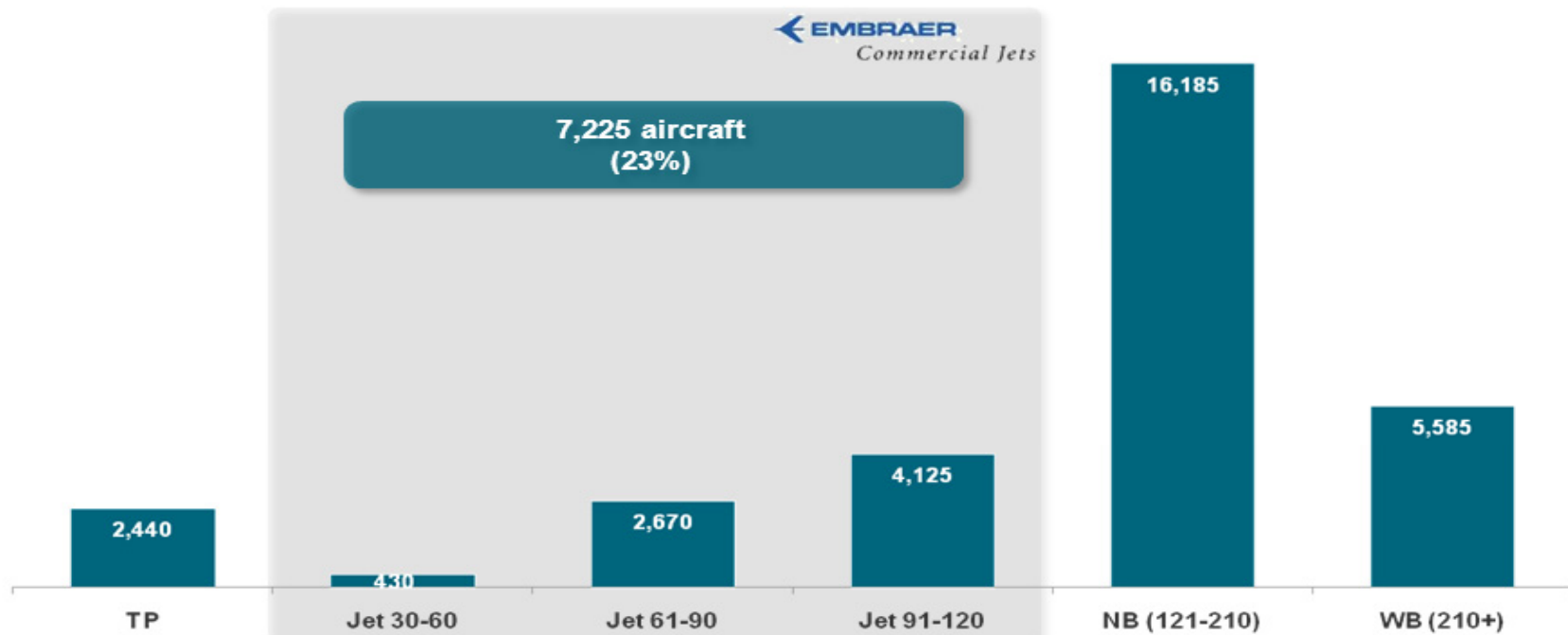


Projected Deliveries by Segment

market forecast
By the
numbers



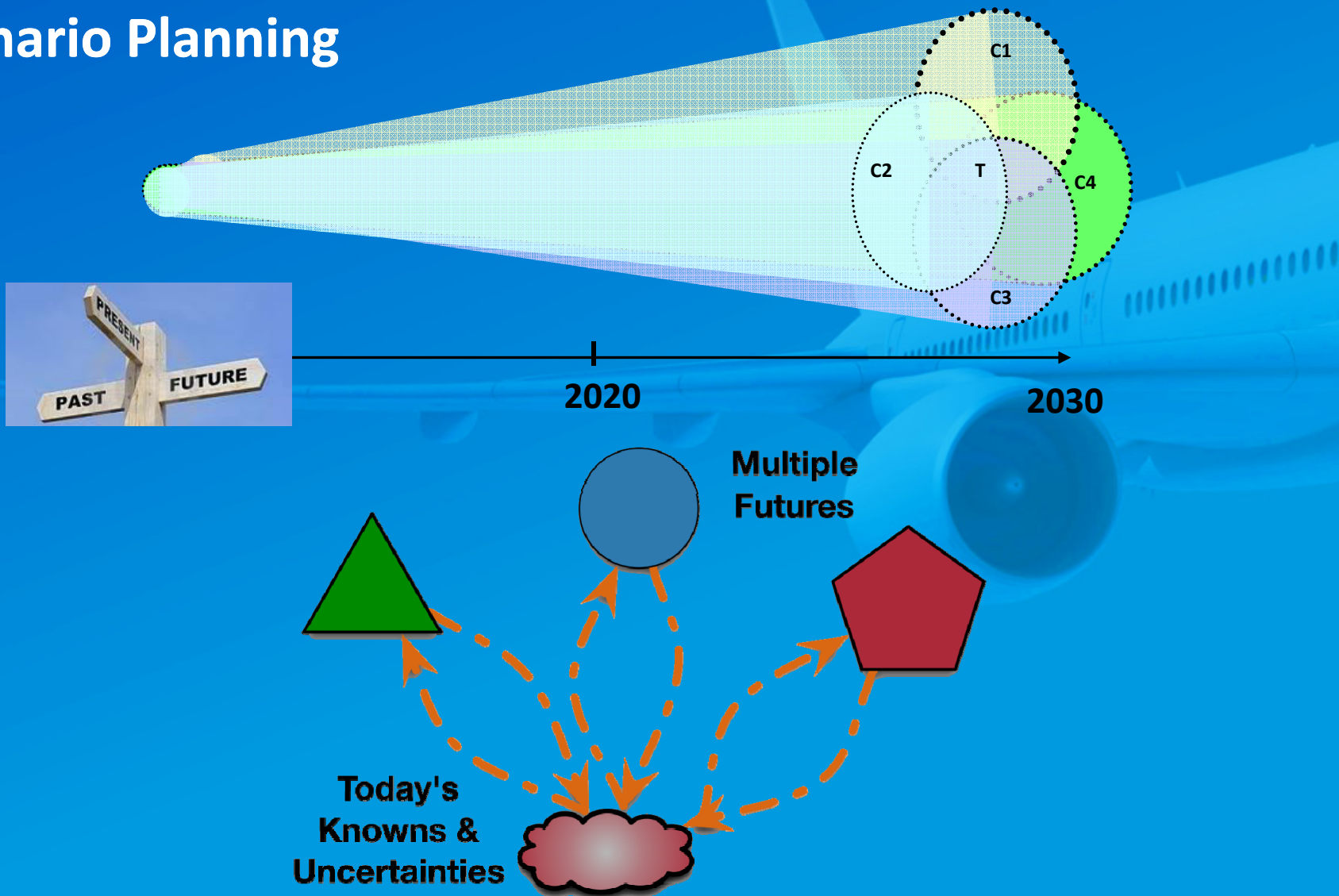
31,435 new aircraft deliveries → total market value of US\$ 3 tri

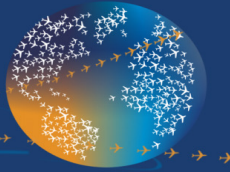


* At list price



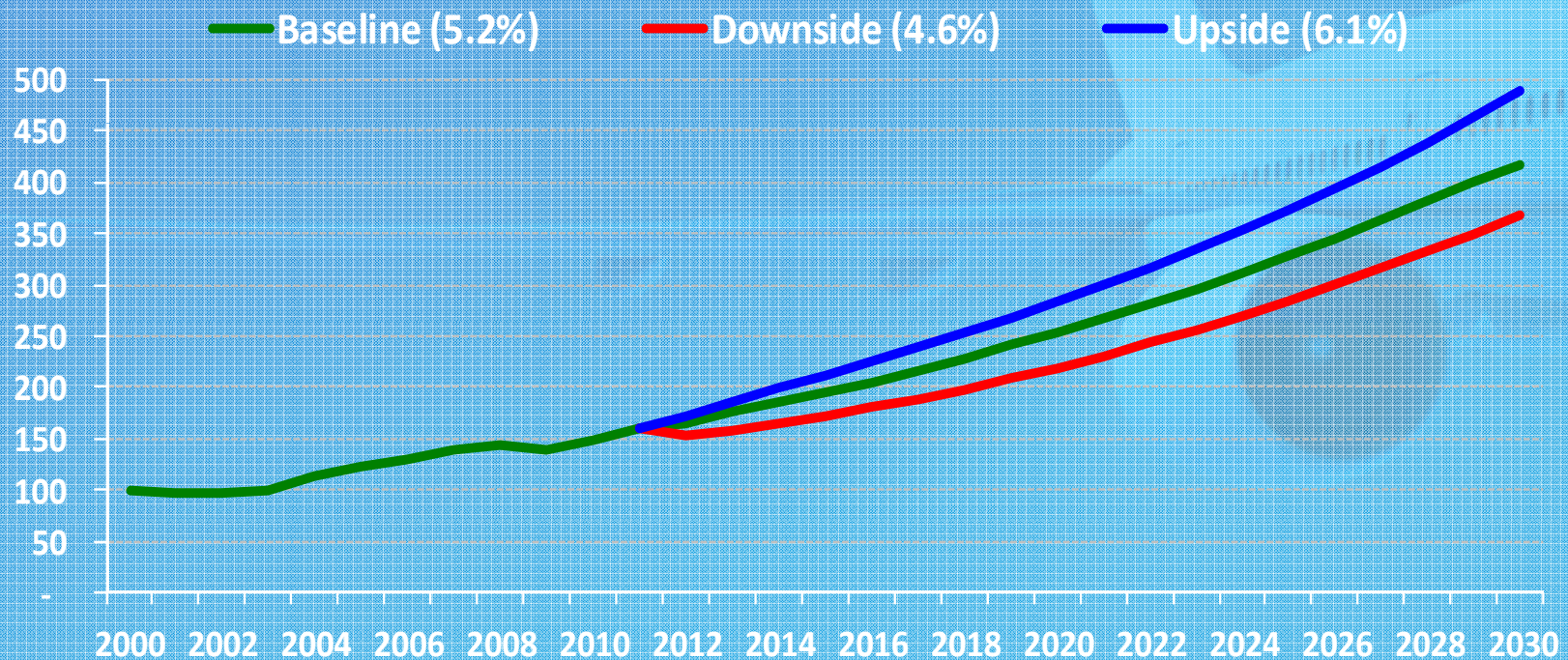
Scenario Planning





Air Transport Demand

RPK (Index 100 = 2000)

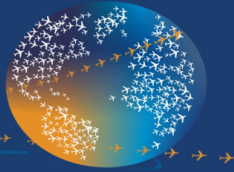


Source: Embraer (2011)



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FOR THE JOURNEY

