

# Brazilian Aviation **Agenda 2020**



## Mission

“ To encourage the habit of flying in Brazil by planning, implementing, and supporting actions and programs to promote the growth of civil aviation **in a consistent and sustainable way**, for both passenger and cargo transportation. ”

Bras  
lines

R mem

% of the  
stic market\*\*



## Program areas

### Competitiveness

Creation of an environment favorable to the development of the airline industry, with cost review and infrastructure improvements, to provide products and services of increasing quality. ABEAR's proposals include dialogue and participation in airport concession processes.

### Sustainability

Adoption of sustainable practices across all links in the industry chain, with investments focused on:

- » Development of sustainable aviation biofuel
- » Continuous review of air traffic control procedures, to allow more direct flights and less waiting time in the air
- » Review of the airlines' operational and administrative procedures, with a view to reducing environmental impact

### People

Relationship with consumers. Investment in training, education, and specialization of professionals working in air transportation and supporting industries.



## Generation of employment and income

**1.2 million**  
jobs

179,000 direct

432,000 indirect

276,000 induced\*

329,000 by the effect on tourism

**US\$ 1.7 billion in direct wages paid**

**US\$ 30.4 billion**  
added to GDP

US\$ 10 billion direct

US\$ 8.3 billion indirect

US\$ 4.6 billion induced\*

US\$ 7.5 billion by the effect on tourism

**US\$ 9.2 billion**  
in taxes paid

US\$ 4 billion direct

US\$ 3.3 billion indirect

US\$ 1.9 billion induced\*

Effect on tourism not measured

**US\$ 4.2 billion**  
in sales of aircraft  
and equipment

Embraer is the world's 3<sup>rd</sup> largest  
aircraft manufacturer, producing about  
200 aircraft per year

Conversion rate: US\$ 1 = R\$ 2.4. \*\*Effect of the consumption of direct and indirect employees

Sources: Study by Oxford Economics-IATA 2009; Estimate by Bain & Co; Wages reported by the ABEAR members; Embraer



## Turnover of goods and services

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**US\$ 50.1 billion** was the turnover  
of air transportation in Brazil's trade turnover  
**(imports plus exports)** in 2012

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This represents **10.7%** of the total turnover  
(of US\$ 466 billion), but only **0.2%**  
of the total weight carried – proof of the  
high **value added** of the goods carried

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In the **domestic market**, the airline industry accounts  
for **0.4%** of the **total weight carried**

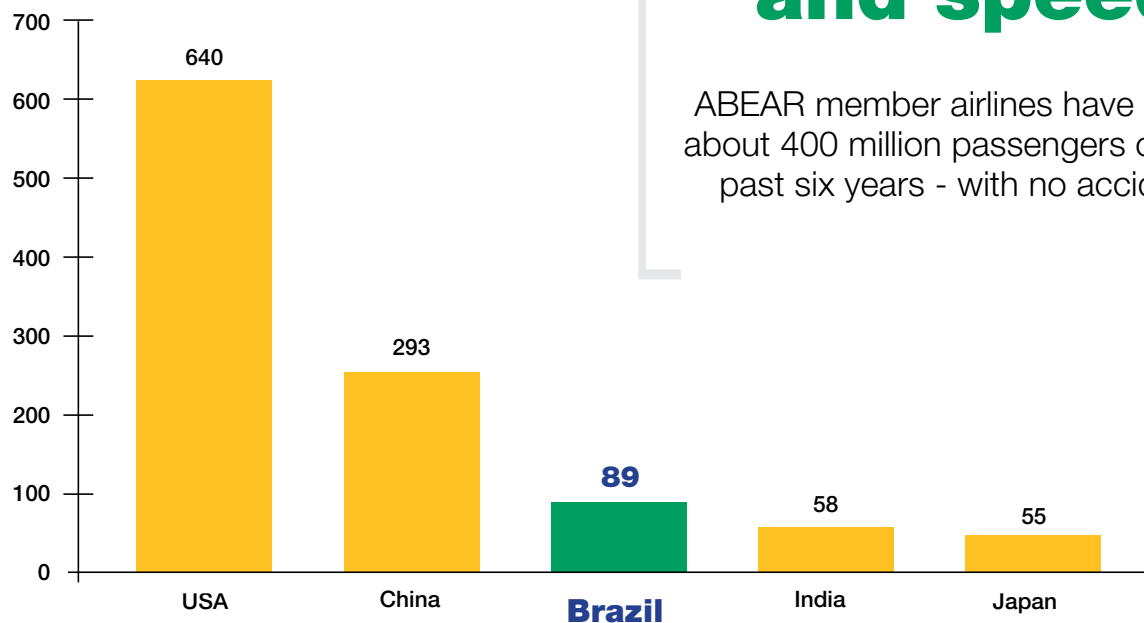
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## Brazil: the world's third largest domestic market

Growth is the result of economic development  
and reduction in airfares

**Passengers carried**  
(domestic, in millions)



## Safety and speed

ABEAR member airlines have carried  
about 400 million passengers over the  
past six years - with no accidents

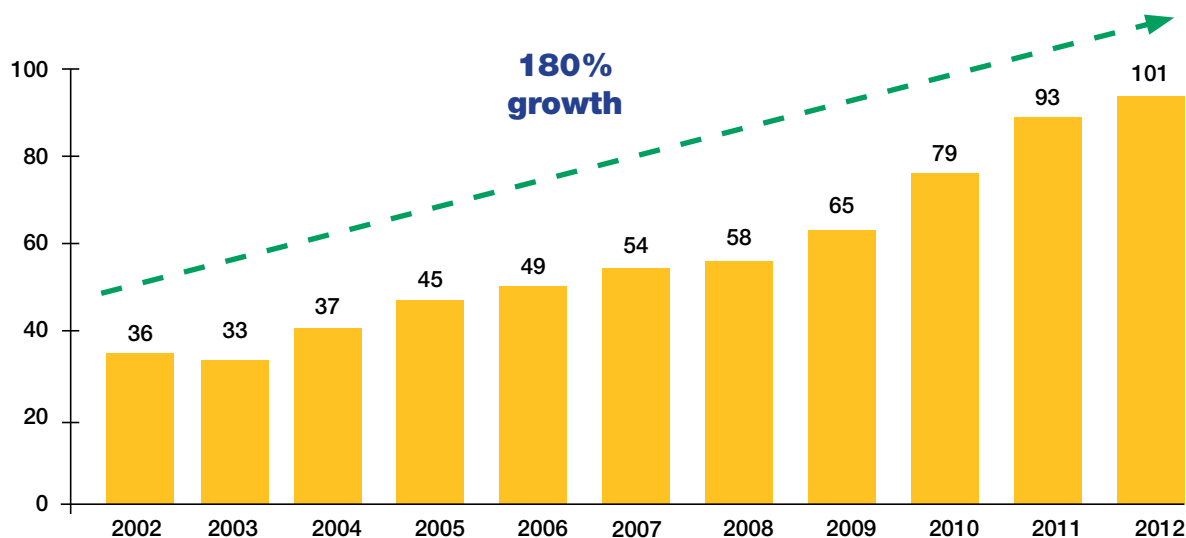
Source: OACI 2012



## More passengers each year

Growth in **domestic and international** travels  
from 2002\* to 2012 is 180%

### Passengers carried in Brazil (domestic and international, in millions)



\*In 2002, pricing freedom becomes effective in Brazil's domestic air transportation

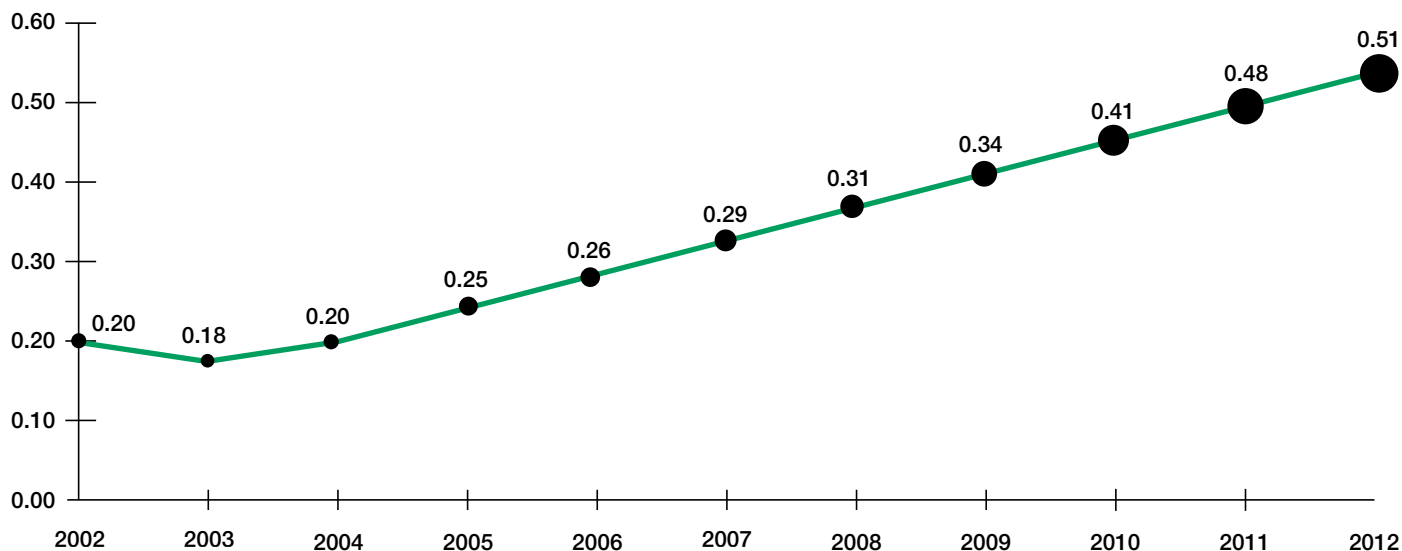
Source: ANAC 2012. Includes regular and non-regular, fare-paying and non-fare-paying air passengers, as well as frequent-flyer program passengers, recorded by Brazilian airlines in all Brazilian airports.



## An expanding market

Brazilians are flying more and more

### Progress in the number of passengers compared to population growth (2002-2012)



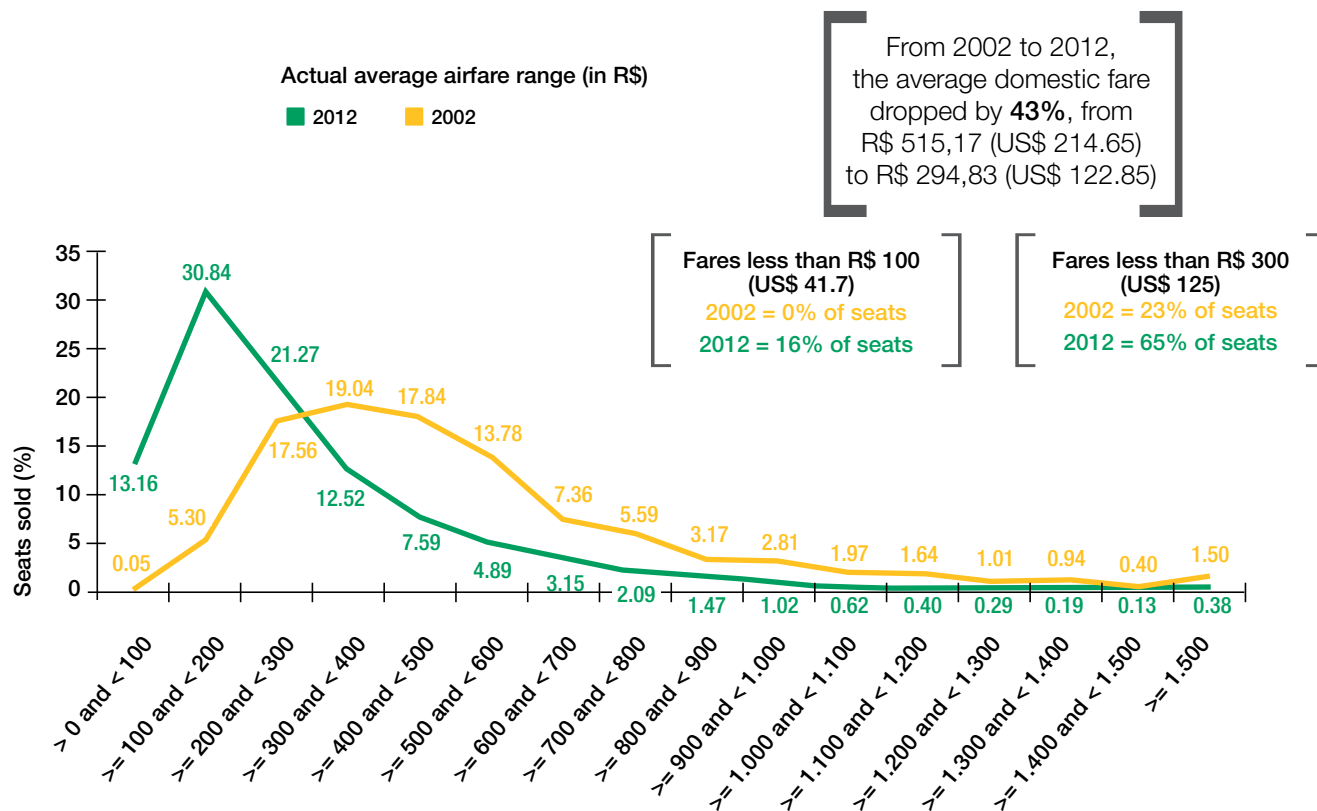
\* ANAC; SRE; GEAC

The **United States** and **Australia** showed the highest ratios of air passengers to population, with over 5 trips per inhabitant per year. **Spain** has a ratio above 4. Other European nations such as **France**, **Germany**, and **Italy** have ratios above 2. While the world's most populous country, China, has less than one trip per inhabitant.

## Flying is increasingly cost-effective

In 2002, there were no tickets for less than R\$ 100 (US\$ 41.7).  
Today, they account for 13% of seats sold

### Seats sold by average airfare ranges



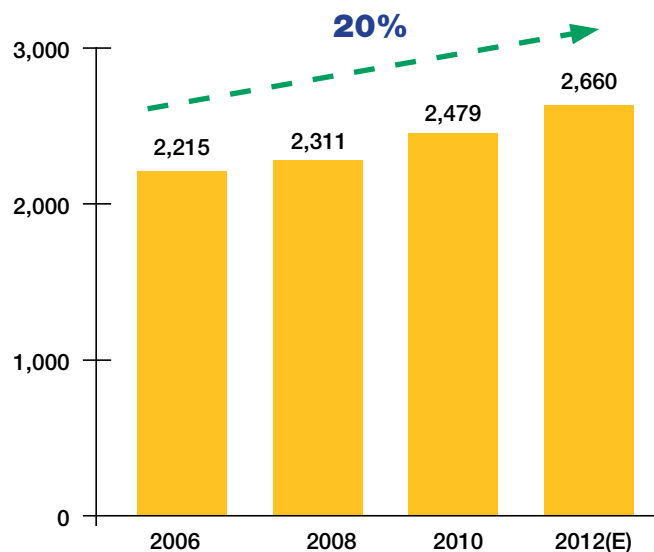
Conversion rate: US\$ 1 = R\$ 2.4. Sources: ANAC/SRE/GEAC, "Tarifas Aéreas Domésticas", ANAC, August 9, 2013



## Democratization of air travel in Brazil

An effect of increasing income in Brazil and cheaper tickets

**Average monthly income per household**  
(net of inflation, in R\$)

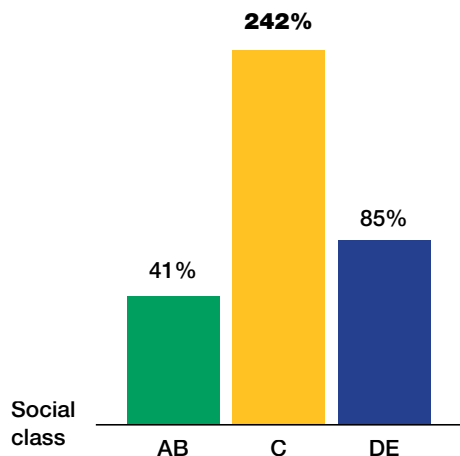


Source: IBGE; LCA Consultores

$$\left[ \begin{array}{c} \text{Cheaper} \\ \text{airfares} \end{array} \right] + \left[ \begin{array}{c} \text{Increasing} \\ \text{income of} \\ \text{Brazilians} \end{array} \right] = \text{The new} \\ \text{consumer is} \\ \text{flying more}$$

## Consequences of economic growth

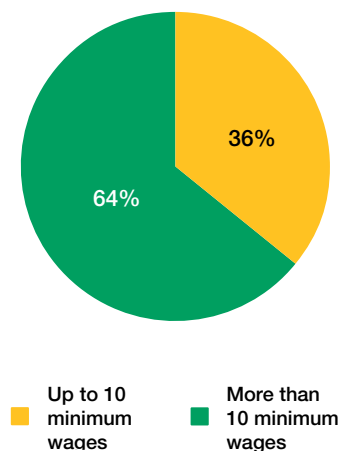
**Increase in Brazilian travel spending**  
(2000 to 2012)



It is in the new middle class that travel spending has increased the most over the past ten years

Source: Market research by Data Popular

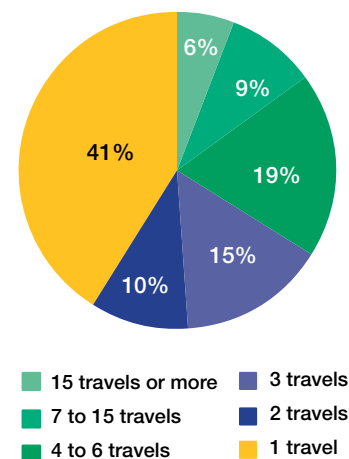
**Distribution of passengers\* by monthly household income**



36% of all passengers carried by Brazilian companies are middle class

Source: Study on the Brazilian Air Transportation Industry, BNDES, 2010

**Number of travels per year\***  
(% of passengers)



The high percentage of first-time travelers reinforces the trend towards democratization

Source: Study on the Brazilian Air Transportation Industry, BNDES, 2010

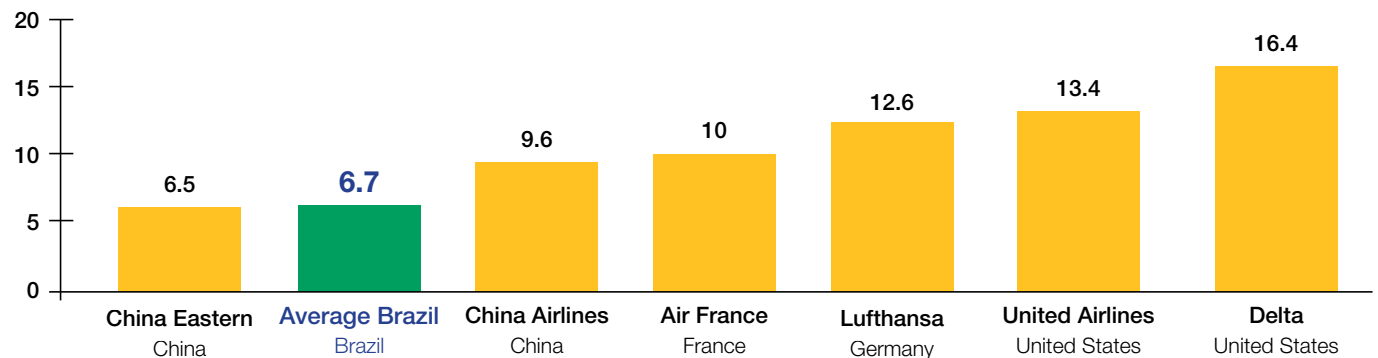
\* Domestic and international travels



## Investments to support growth

Brazil has one of the world's youngest aircraft fleets,  
with a constantly growing supply of flight seats

**Average age of the fleet (years)**



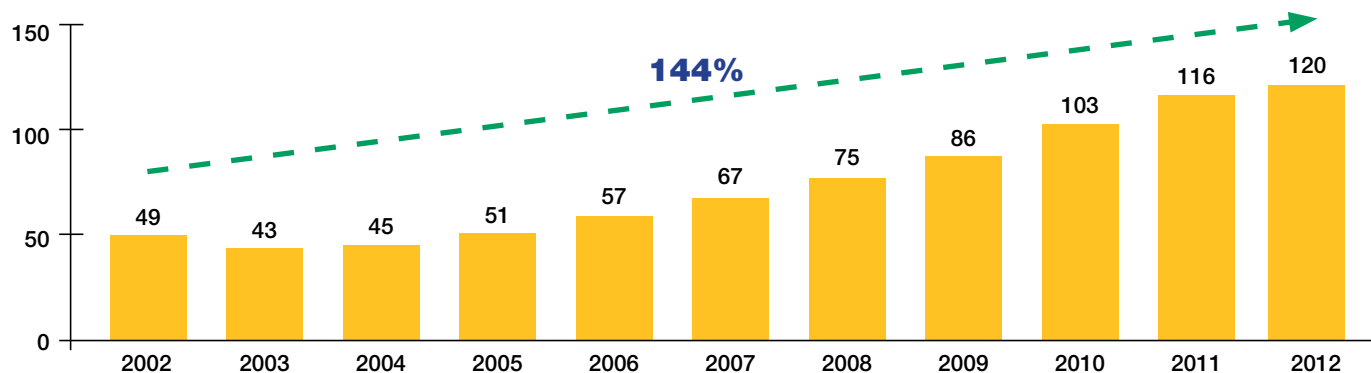


## Supply of seats to meet the growing demand

The number of seats on flights continuously grows in Brazil

In 2013, for the first time  
in over ten years, the number  
is expected to be lower:  
the estimate is 115

Available capacity in domestic flights (ASK billions)\*



Source: ANAC

\* Acronym for Available Seat Kilometer. The variable, which represents the supply of passenger air transportation, is obtained by multiplying the number of available seats by the number of kilometers flown

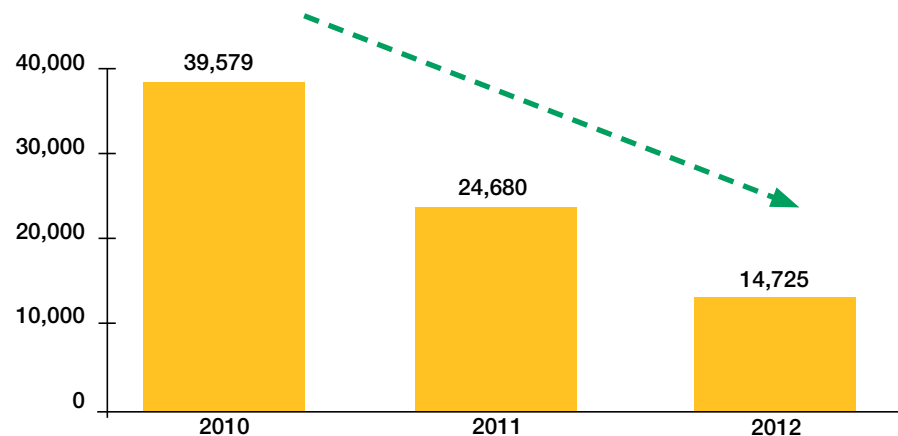


## More satisfied passengers

Respect for the consumer is a constant point of attention for airlines

### Number of comments\* from passengers

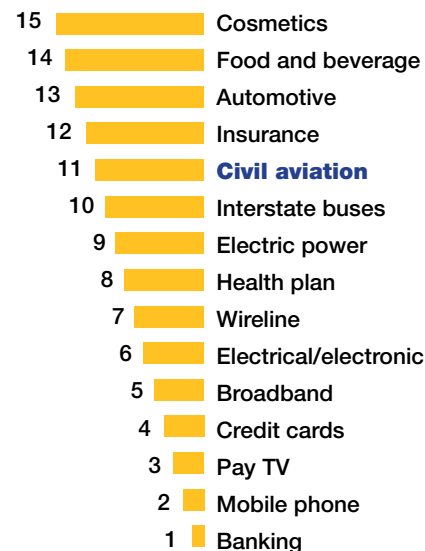
Since 2010, the number of comments from passengers has decreased by more than **60%\*\***



\*Reviews, complaints, questions, and compliments  
\*\*ANAC's ombudsman report

### Industries that most respect consumer rights

[ 1 is the one that least respects and 15 is the one that most respects ]



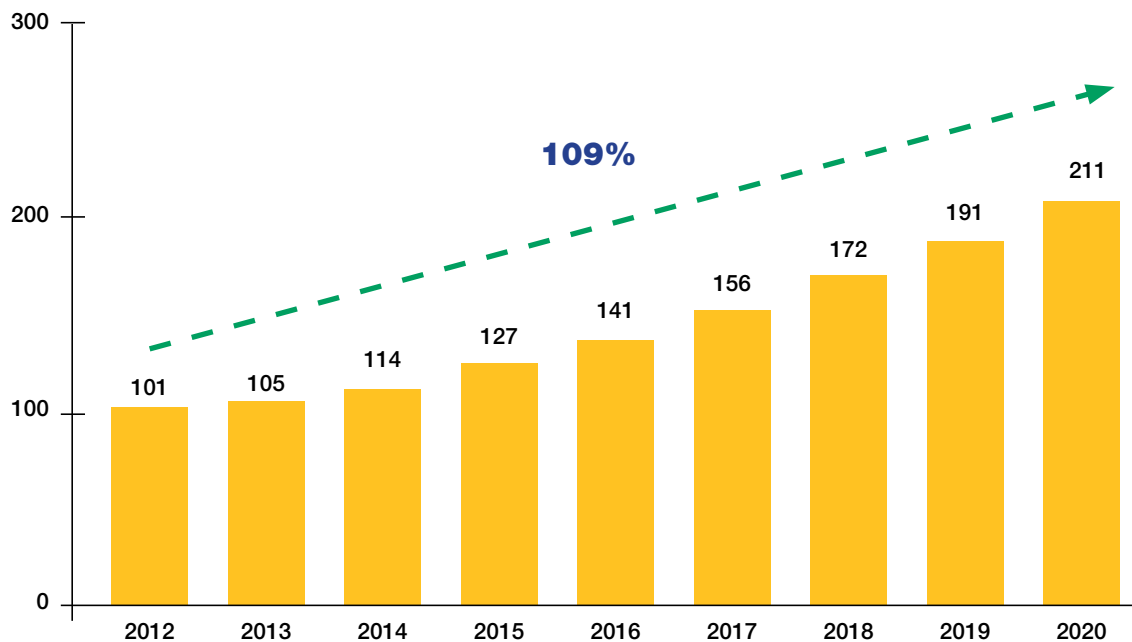
Source: Instituto Ibero-Americano de Relacionamento com Cliente (April 2013)



## Growth potential

Passenger transportation is forecast to grow by 109% and cargo transportation by 58% until 2020

### Potential number of passengers carried in Brazil (domestic and international, in millions)



Exports + imports  
by air  
(US\$ billions)

Year	Exports + imports by air (US\$ billions)
2012	50
2013	51
2014	54
2015	57
2016	61
2017	66
2018	72
2019	76
2020	81

Source: Estimate by Bain & Co

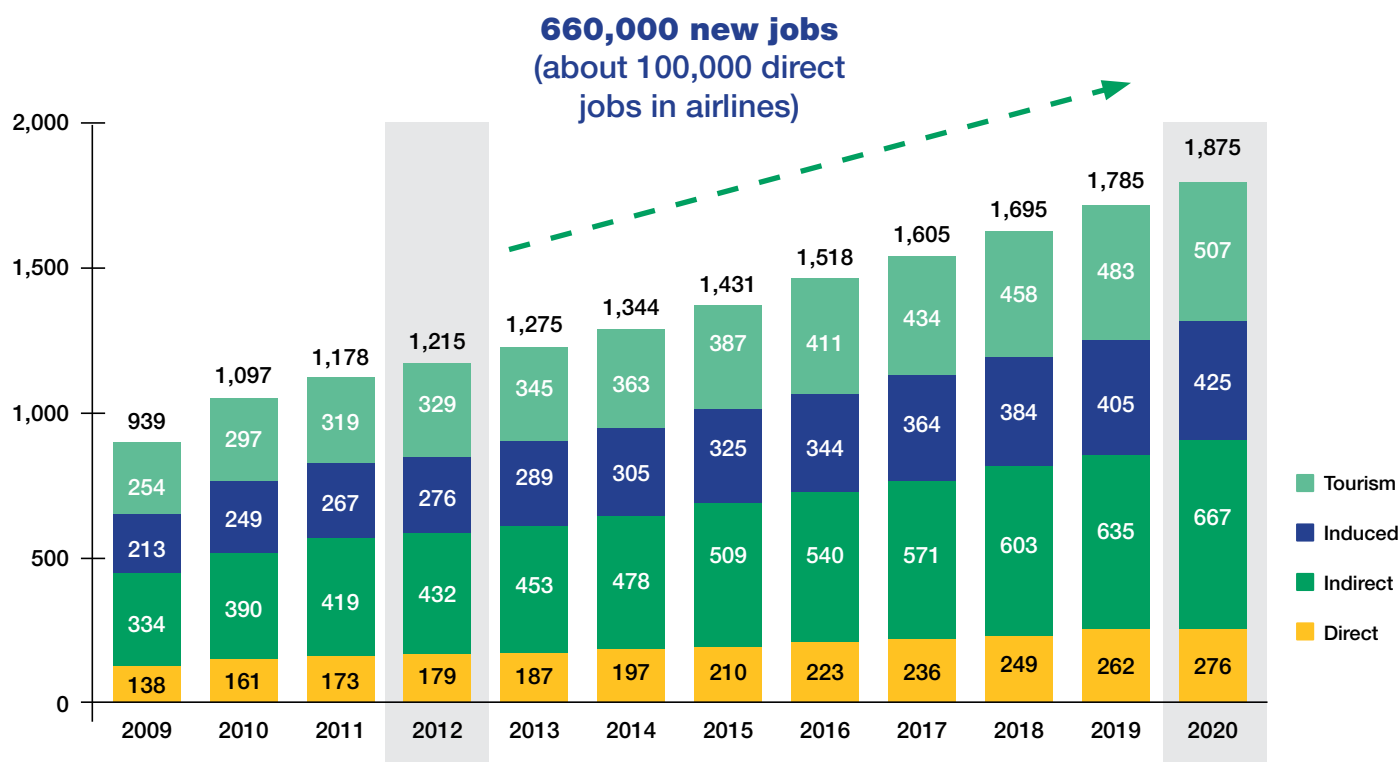




## Generation of jobs

The projected growth for the airline industry has the potential to generate 600,000 new jobs

### Number of employees in the airline industry in Brazil (thousands)



Source: RAIS; ANAC; Study by Oxford-IATA; Estimate by Bain & Co

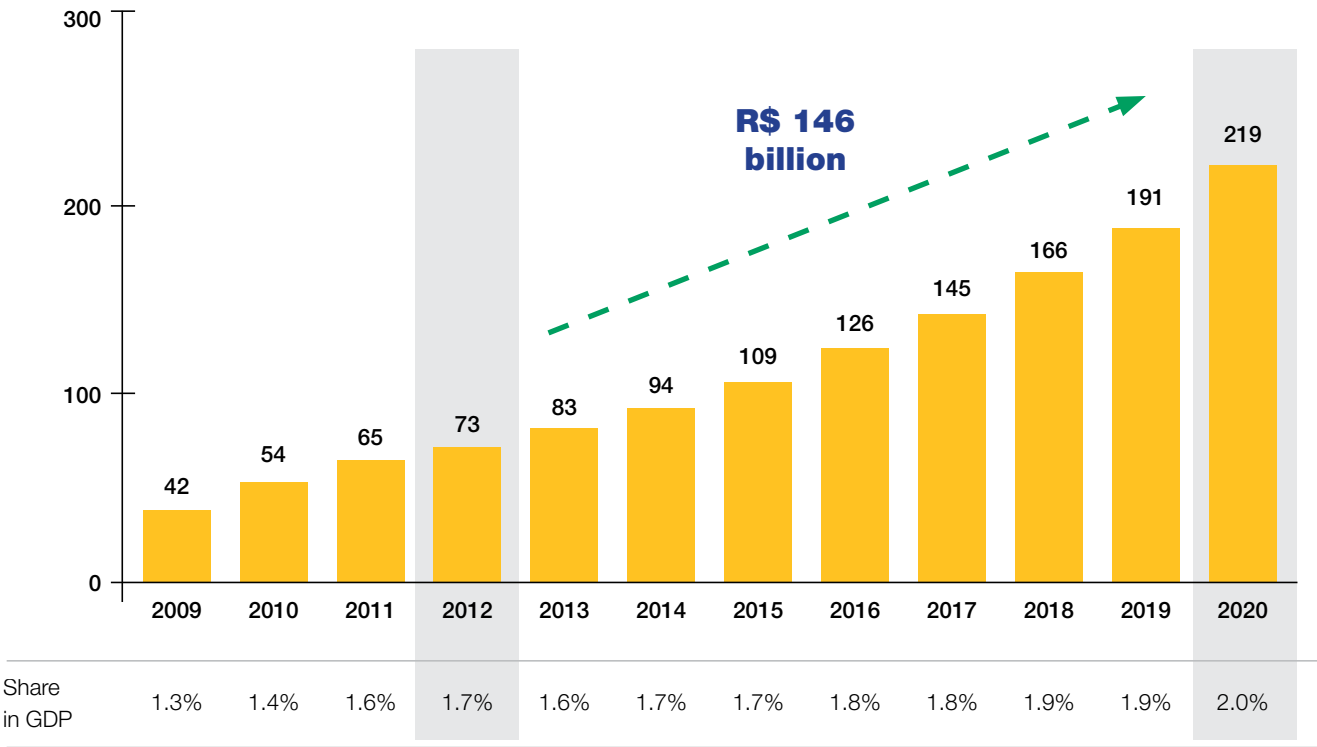


# Contribution to GDP

By 2020, the Brazilian airline industry is expected to add R\$ 146 billion to the country's gross domestic product

**Value directly added by the airline industry to GDP**  
(in billions of nominal R\$)

For every 1% increase  
in GDP, the airline industry  
grows by 2.5%



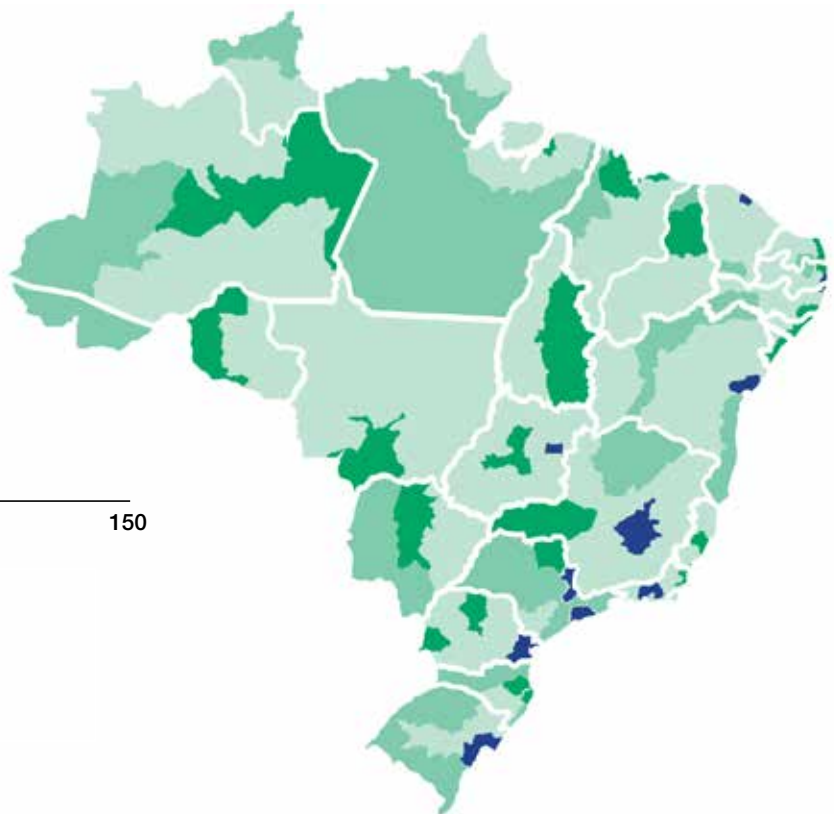
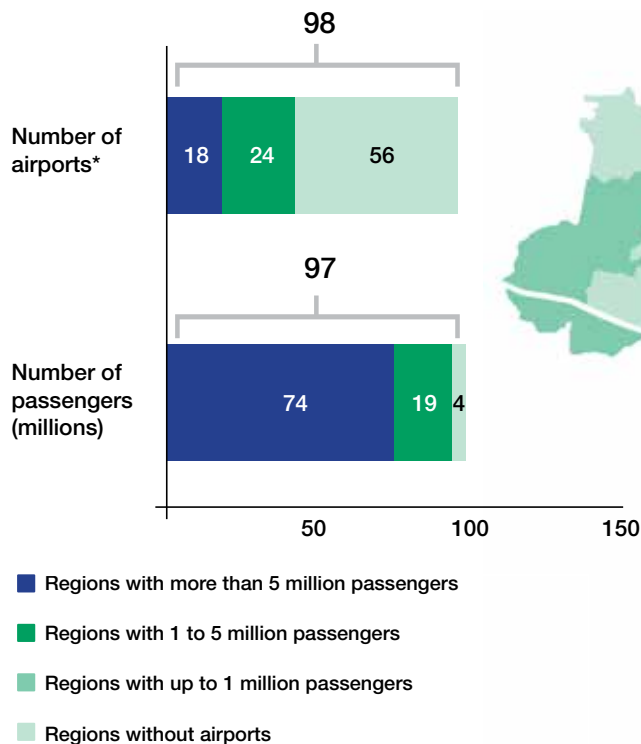
Source: Estimate by Bain & Co



## Poor geographic distribution

Passenger air transportation is currently concentrated in a few regions

### Air transportation by IBGE mesoregion (2012)



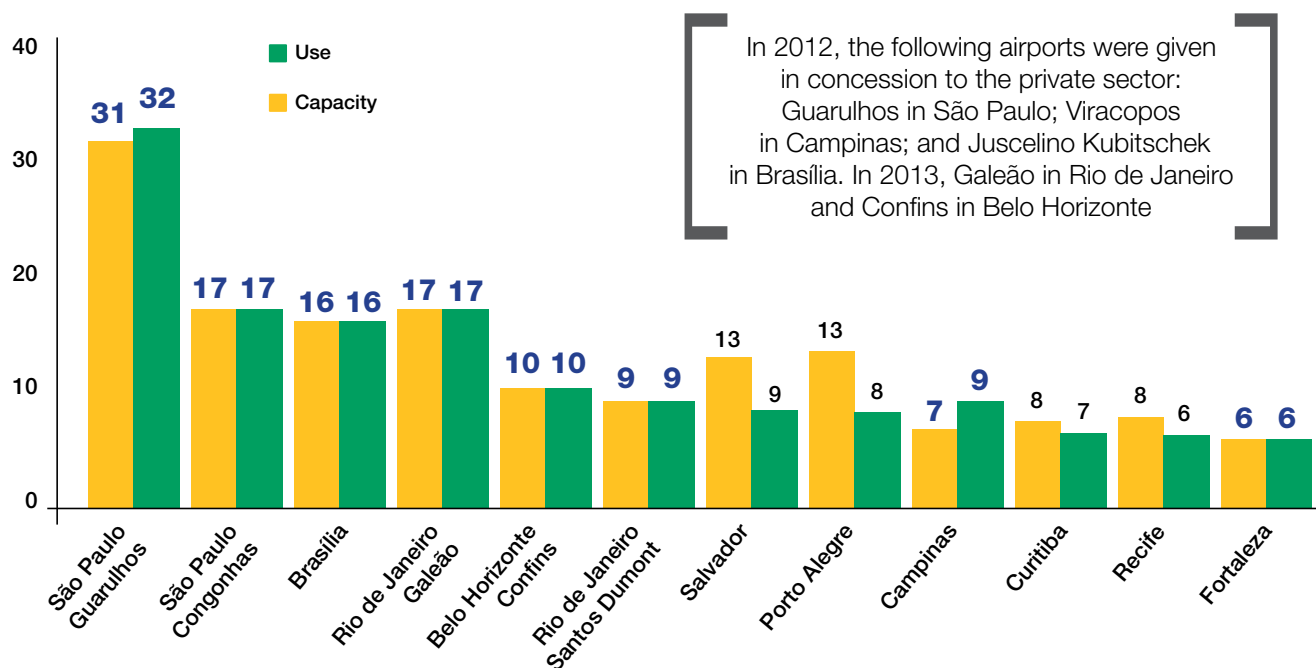
Source: Estimate by Bain & Co

\*Airports managed by Infraero and by DAESP

## Airport overload

Out of the twelve major airports in the country, eight are already operating at or above their declared capacity

### Declared capacity vs. use in major Brazilian airports (in millions of passengers)



Sources: Infraero; concessionaires



## High operational costs

Fuel prices and taxes represent major bottlenecks

### ATF Prices\*

**Fuel accounts for up to 40%\*\*  
of the costs of an airline**

Any difference in the ATF final price  
has a great impact on business

### ICMS on ATF

**Currently ICMS rates range from  
4% to 25% in major airports**

A result of the different tax rates, it is a common  
practice for companies to plan the network  
to fuel up at the point with the lowest ICMS

This practice has negative consequences for everyone:

- » **Environment:** the higher fuel consumption increases pollutant gas emissions
- » **Airlines:** operational inefficiencies
- » **State governments:** the “tax rate war” reduces tax collection in states with higher ICMS rates
- » **Passengers:** tickets become more expensive

\*Aviation turbine fuel

\*\* Public data of Gol, from January to September 2012

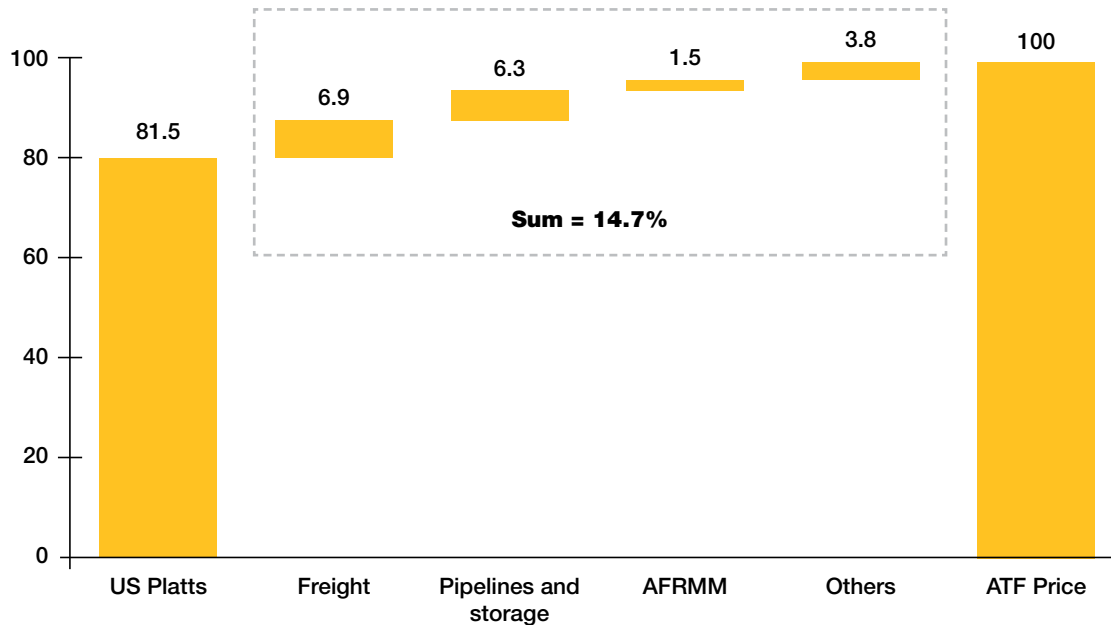


## Fuel cost

Pricing formulas and taxes raise the price of the input for domestic aviation and affect the competitiveness of companies

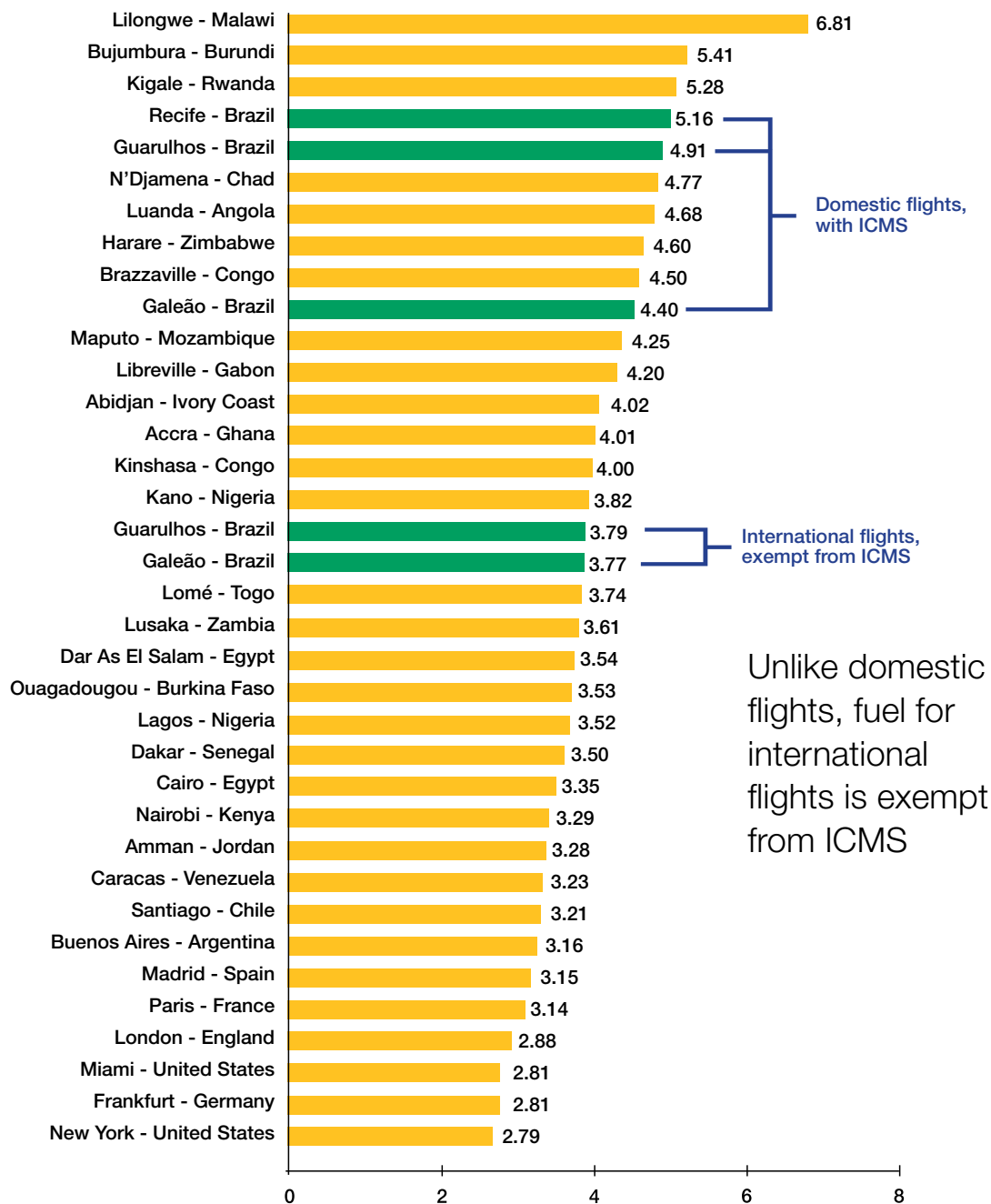
Although approximately 75% of the volume is produced in Brazil, ATF is priced on import parity

### Estimated ATF price composition in Brazil (as % of the price, average in 2009)



Sources: ANP; IATA

**Aviation fuel price**  
(in US\$ per gallon,  
as of April 2013)



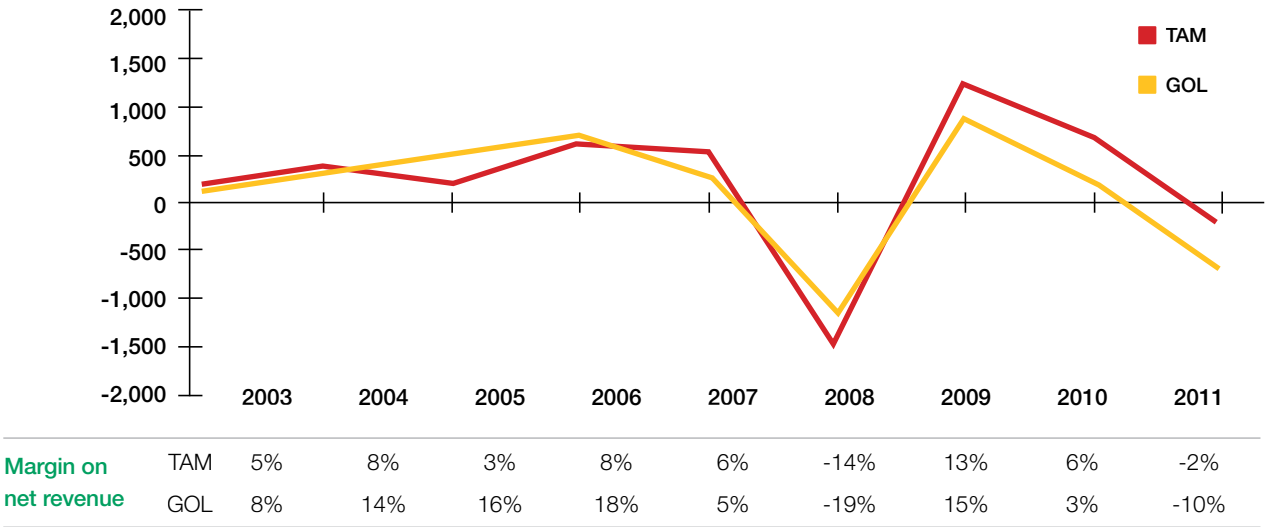
Sources: ANP; IATA



# Income

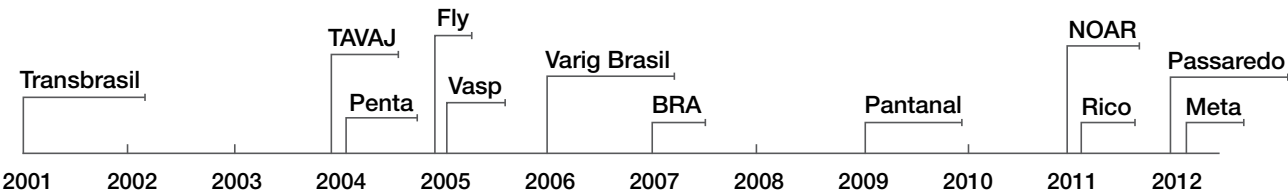
Despite the industry's growth, airlines' financial performance is modest and very volatile

TAM and GOL historical net income (in R\$ thousands)



Source: CVM

## Domestic airlines that have been shut down or have gone into receivership



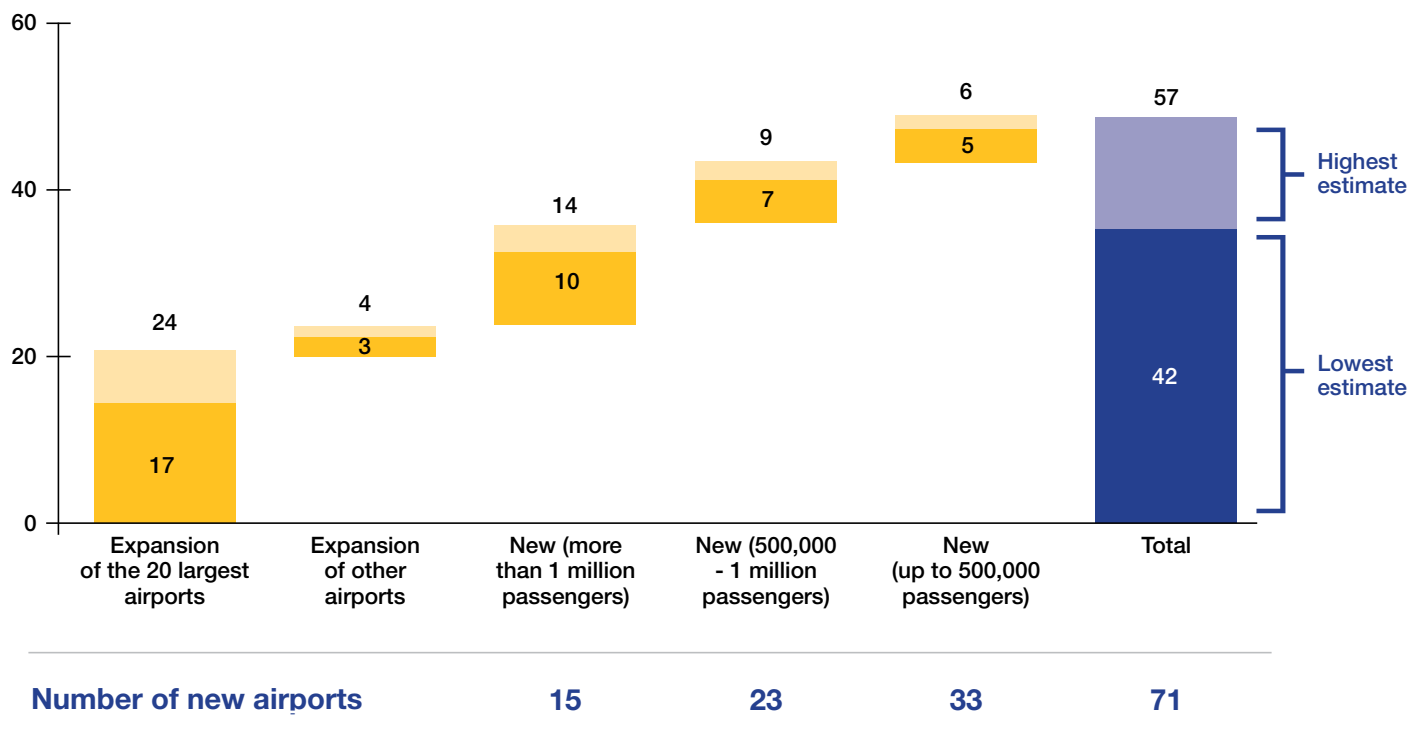




## Investments in airport infrastructure

Growth in the airline industry will require R\$ 42 to 57 billion investment in airport infrastructure by 2020

### Need for investment in airport infrastructure (in R\$ billion)



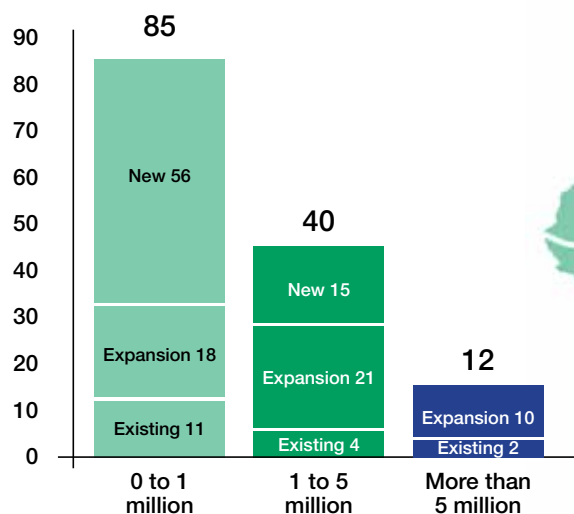
Sources: Estimated by Bain & Co based on data from BNDES and Infraero



## Expansion and construction

The economic development and emergence of new regions are great opportunities to build or rehabilitate 71 – and expand 49 airports

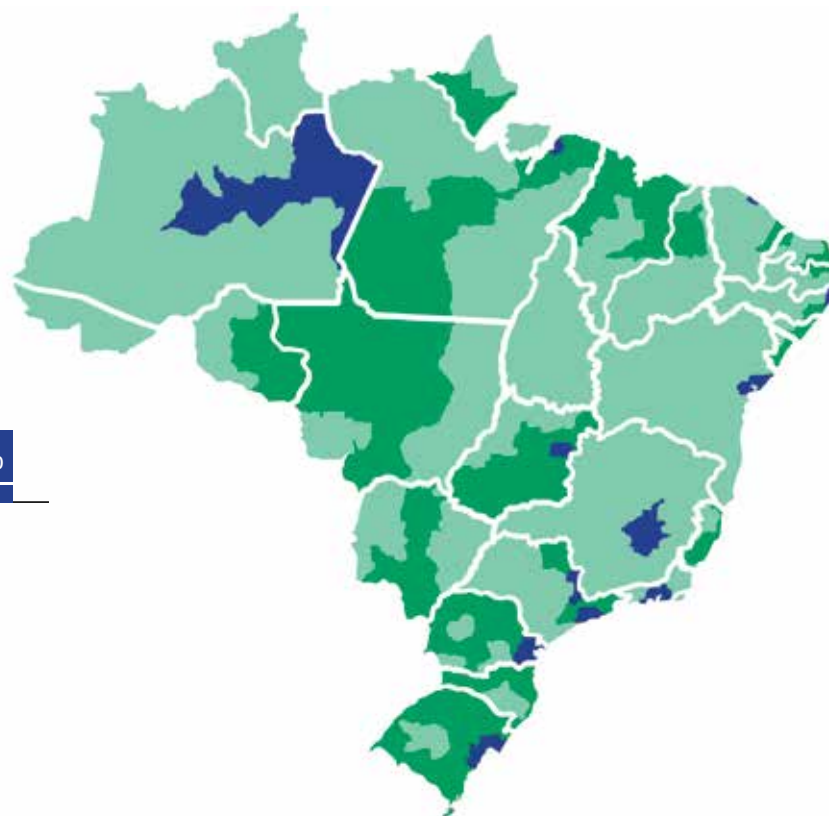
### Need for airports by passenger traffic



■ Regions with more than 5 million passengers

■ Regions with 1 to 5 million passengers

■ Regions with up to 1 million passengers



Source: Estimate by Bain & Co



## Expansion of airports and air traffic control

Expanding hubs responsibly requires investing in air traffic control and review of routes and flight procedures

### **Investment in expansion and construction of new airports**

Expansion and construction of new airports implies the need to increase the capacity of existing airports, so that already congested hubs, such as São Paulo, can absorb a larger number of flights

### **Review of routes and air traffic control procedures**

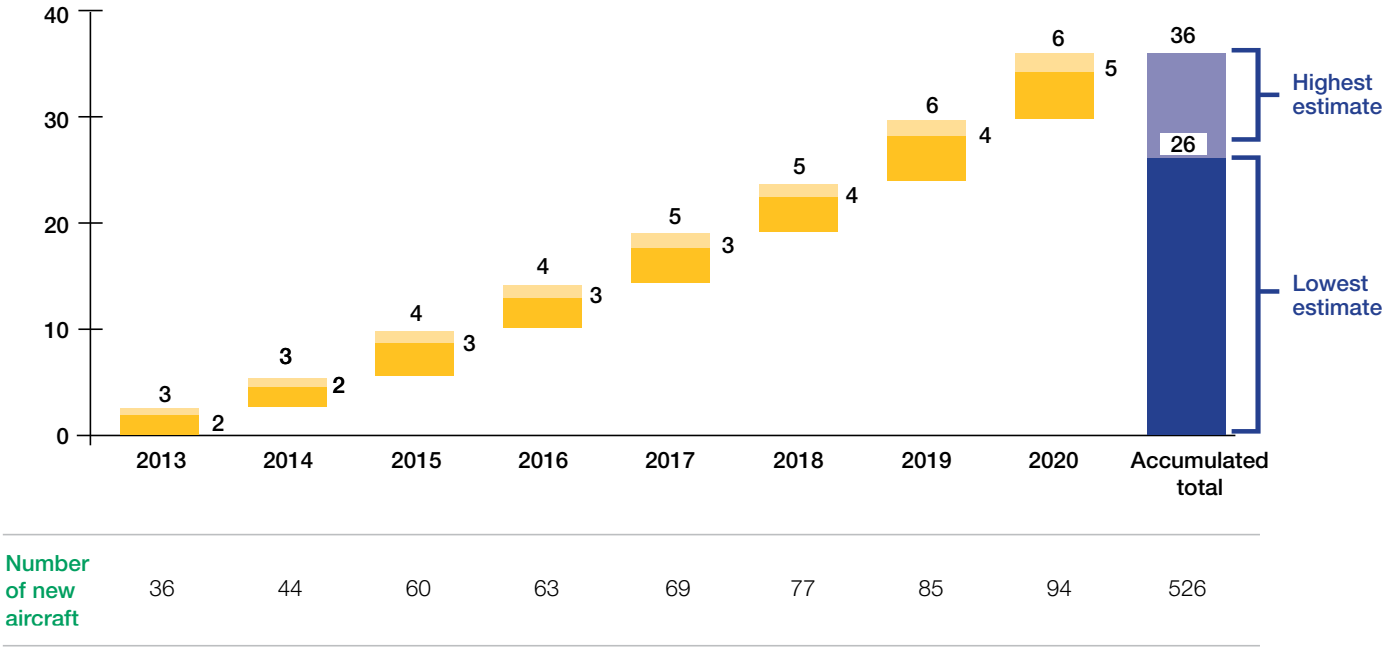
It is necessary to change routes and traffic control procedures to reduce the average flight time, cutting costs and promoting the market growth - in addition to allowing saturated airports, such as São Paulo, Rio de Janeiro, and Brasília, to receive more flights



# Investments in aircraft

For the industry to achieve its potential, airlines will have to invest R\$ 26 to 36 billion in aircraft by 2020

## Need for investment in aircraft (in R\$ billion)



Note: average aircraft valuations are based on financial statements of Brazilian publicly traded companies  
Source: Estimate by Bain & Co



## Potential for 2020\*

Commitment and investments to resolve the industry's problems must take Brazilian air transportation to a new level

	2012		2020
Passengers	101 million	110 million →	211 million
Airports	96	71 airports →	167
Direct domestic routes	479	316 routes →	795
Employees	1.2 million	660,000 jobs →	1.9 million
Fleet	450 airplanes*	526 airplanes** →	976 airplanes**
<div>Investments</div> <div>Private: R\$ 26-36 billion      Public: R\$ 42-57 billion</div>			

\*Approximate amounts and quantities \*\*ABEAR Fleet  
Source: Bain & Co; Infraero; Daesp; ANAC; IATA; HOTRAN



## Combined efforts

To develop to its potential, the airline industry needs close collaboration between the government and private sector

### Government

» **Infrastructure:** to enable investments in expansion, maintenance, and construction of airports, air traffic control, and development of new air routes

» **Costs:**

- Unification of the ICMS rate at 4% in all states
- To start talks with Petrobras to review the ATF pricing formula

» **Regulation:** to ensure a regulatory framework

### Private sector

» **Investment:** to ensure investment in the new fleet necessary to meet the growing demand

» **Efficiency:** constant gain in operational efficiency - to make air tickets more accessible

» **Quality and safety:** to continue to seek improvements in user service

» **Expansion of the air network:** more destinations, more flights

» **Sustainability**

» **Consumer care**



## Brazil will host major sporting events

2014 World Cup in 12 host cities and 2016

Olympic Games in Rio de Janeiro

### Actions required for the World Cup

» **Air Network Review**  
(affecting approximately 40%  
of the current network)

» **Renovation of airports**

**Currently  
77 foreign airlines  
fly to Brazil**

### Challenges for the World Cup

» **Weather** (airports in Southern Brazil,  
where the winter is more severe, do not  
have proper equipment)

» **Long distances between  
the host cities**



### In Comparison

