Brazilian Aviation
Agenda 2020

www.abear.com.br

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.

ABEAR members

The association was created in August 2012

Associação Brasileira das Empresas Aéreas

The founding companies

Avianca · Azul* · GOL · TAM · TRIP

Members

BOEING · TAM CARGO · TAP PORTUGAL

Together we account for

99% of the domestic market**

with

2,700 flights per day

492 aircraft

* Trip and Azul were merged in 2013 under the name Azul
**Measured in RPK (Revenue Passenger Kilometer). Sources: ANAC/2013; Airlines

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$ 5.7 billion
in sales of aircraft
and equipment

Embraer is the world's 3rd 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. ** 2013
Sources: Study by Oxford Economics-IATA 2009; Bain & Co (estimate in January 2013); Wages reported by the ABEAR members; Embraer

Turnover of goods and services

US$ 52.7 billion was the turnover of air transportation in Brazil's trade turnover **(imports plus exports)** in 2013

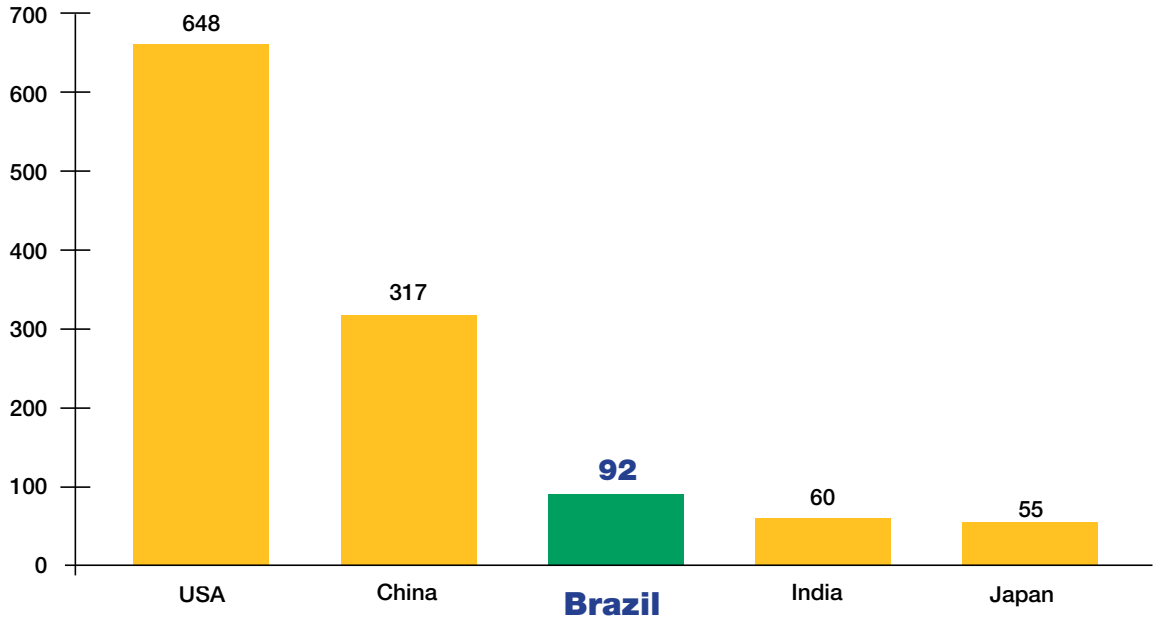
This represents **11%** of the total turnover (of US$ 481 billion), but only **0.17%** of the total weight carried

Sources: MDIC; CNT

Brazil: the world's third largest domestic market

Growth is the result of economic development and reduction in airfares

Passengers carried
(domestic, in millions)

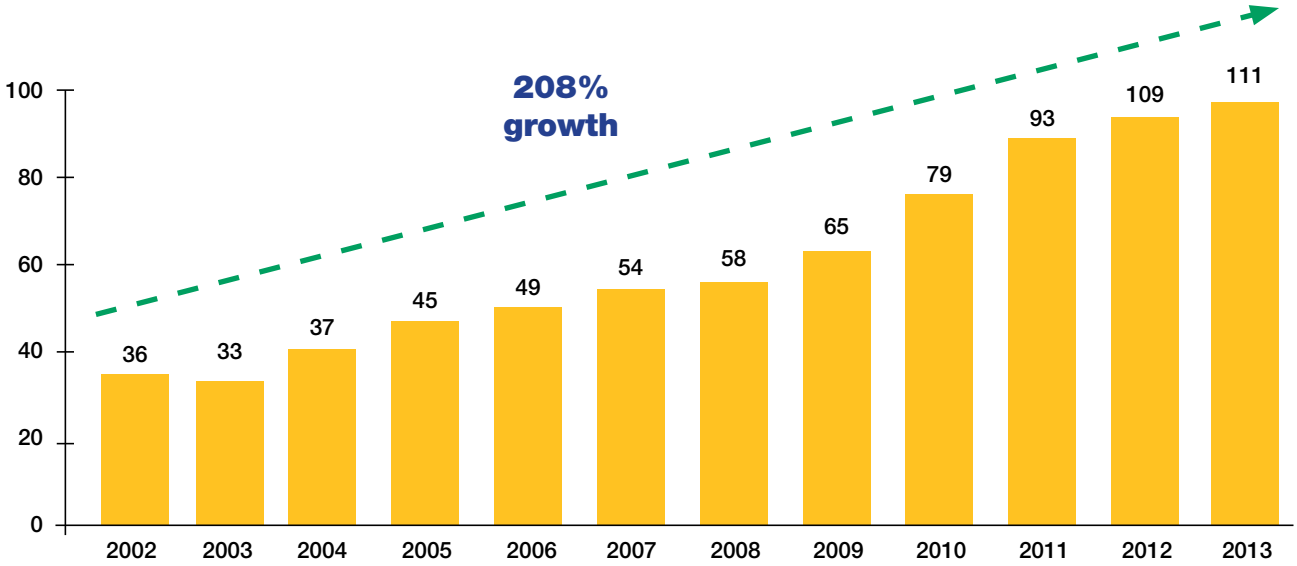


Sources: OACI 2013; DoT/Bureau of Transportation Statistics (USA)

More passengers each year

Growth in **domestic and international** travels from 2002* to 2013 is 208%

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

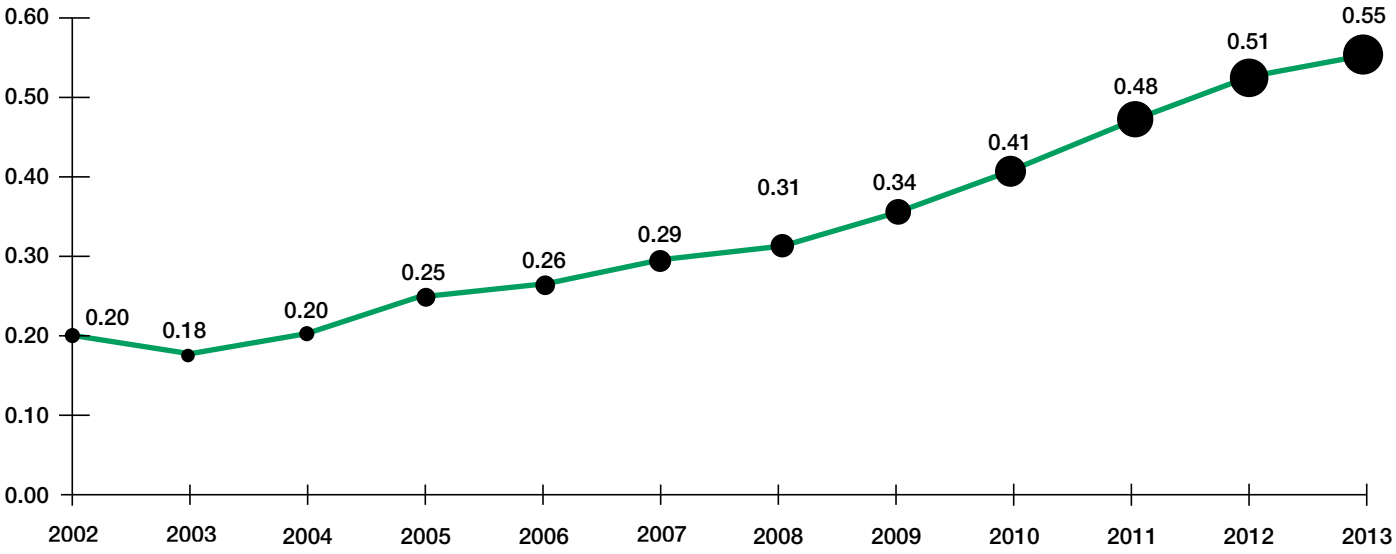


*In 2002, deregulation (pricing freedom) becomes effective in Brazil's domestic air transportation
Source: ANAC. Includes regular and non-regular, fare-paying and non-fare-paying air passengers, as well as frequent-flyer program passengers, recorded by Brazilian airlines in all Brazilian airports.

An expanding market

Brazilians are flying more and more

Progress in the number of passengers compared to population growth (2002-2013)



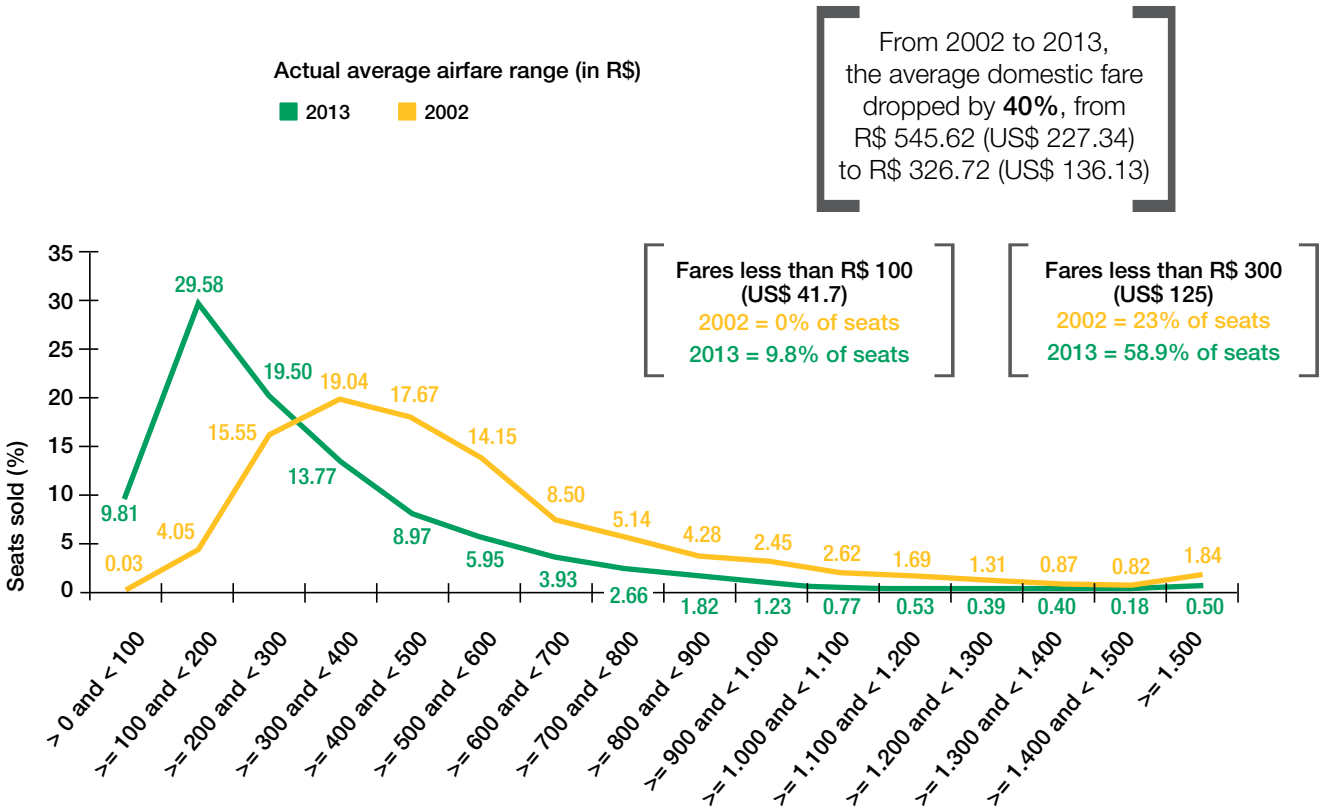
Sources: ANAC; SRE; GEAC

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).
In 2013, they accounted for almost 10% of seats sold

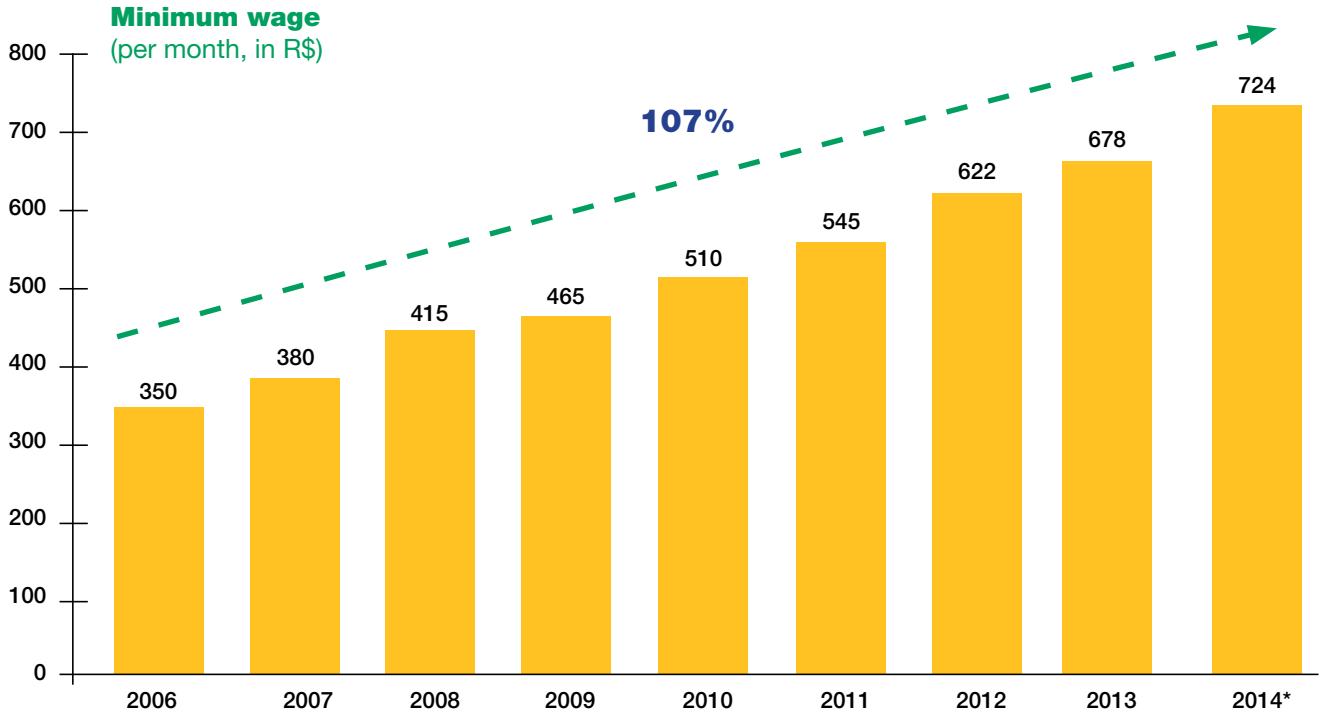
Seats sold by average airfare ranges



Conversion rate: US$ 1 = R$ 2.4. Sources: ANAC/SRE/GEAC, “Tarifas Aéreas Domésticas”, ANAC, February 25, 2014

Democratization of air travel in Brazil

An effect of increasing income in Brazil and cheaper tickets



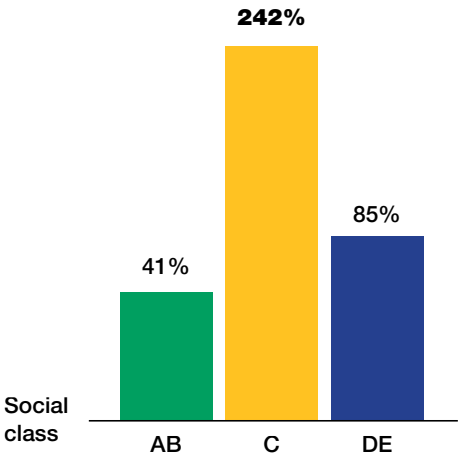
*First quarter

Source: IPEA.

[Cheaper airfares] + [Increasing income of Brazilians] = **The new consumer is flying more**

Consequences of economic growth

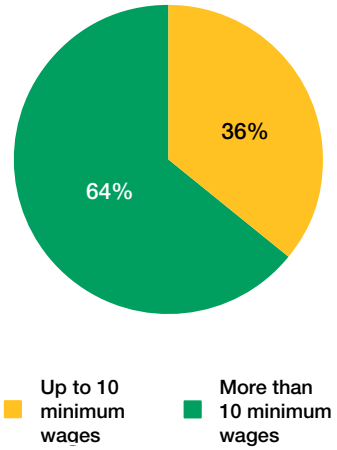
Increase in Brazilian travel spending
(2000 to 2012)



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

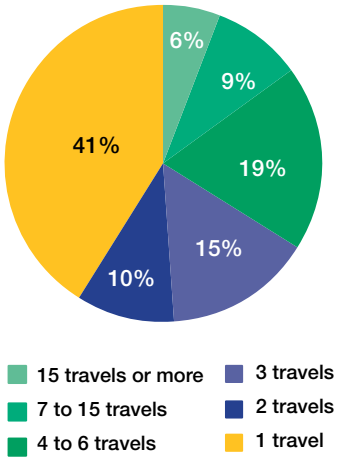
Distribution of passengers* by monthly household income



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

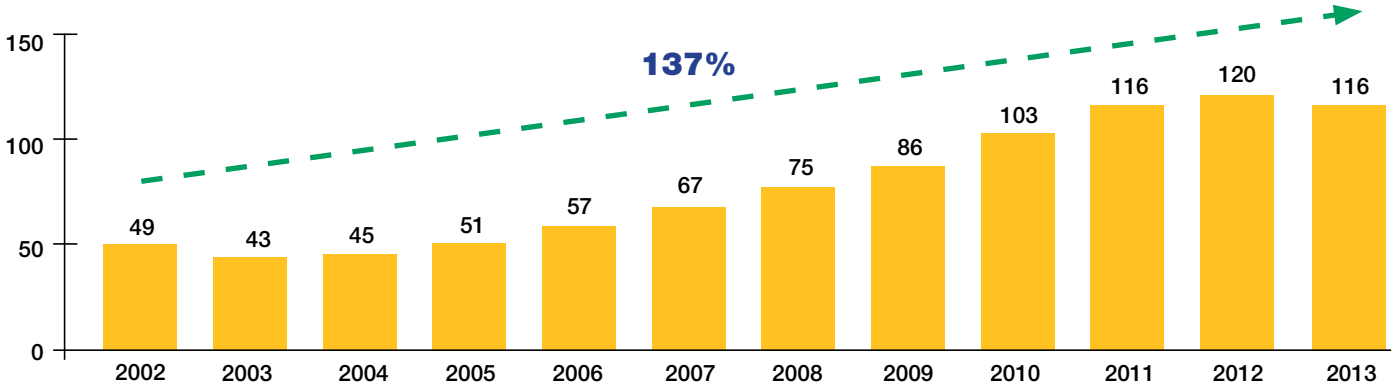
Source: Study on the Brazilian Air Transportation Industry, BNDES, 2010

* Domestic and international travels

Supply of seats to meet the growing demand

The number of seats on flights growed continuously on the last decade in Brazil

Available capacity in domestic flights (ASK billions)*



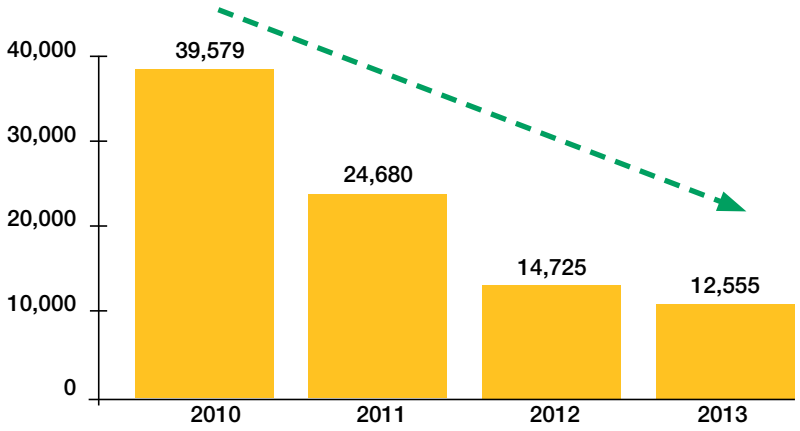
Source: ANAC
* Acronym for Available Seat Kilometer. The variable, which represents the supply of passenger air transportation, is obtained by multiplying the number of available seats by the number of kilometers flown

More satisfied passengers

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

Number of comments* from passengers

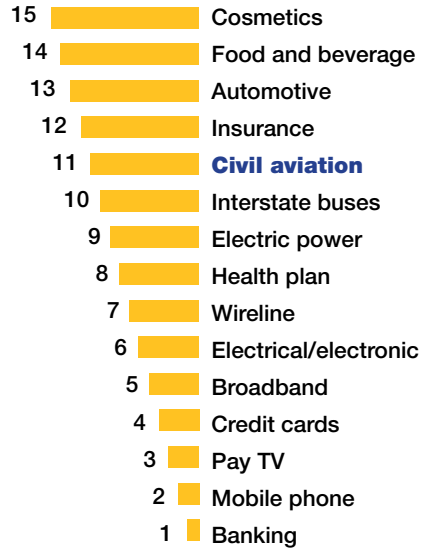
Since 2010, the number of comments from passengers has decreased by more than **68%****



*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]

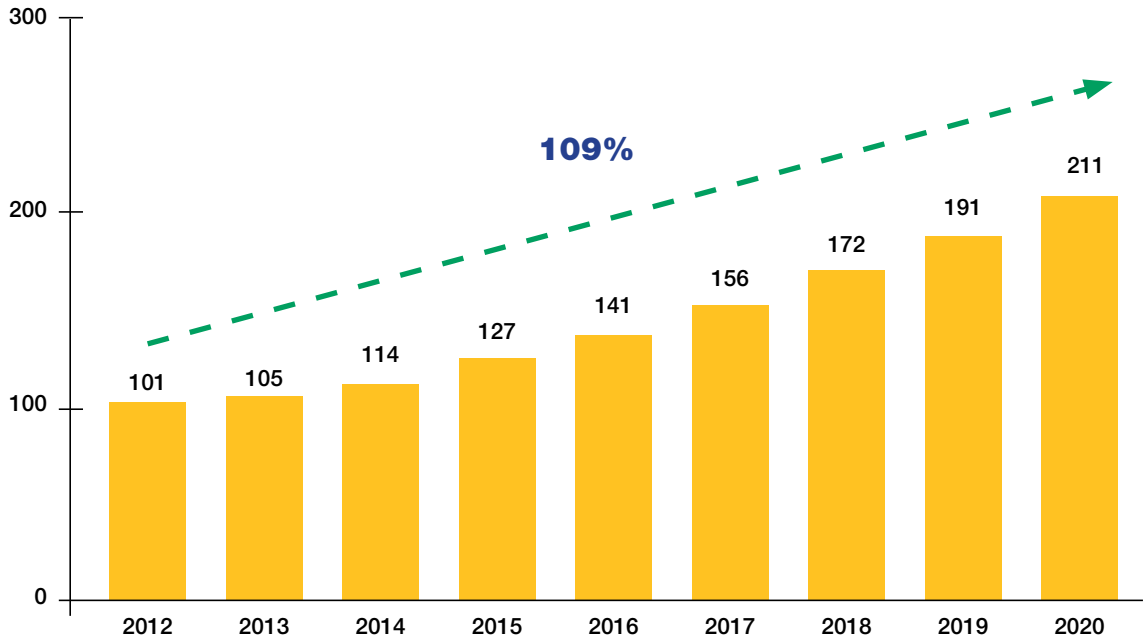


Source: Instituto Ibero-Americano de Relacionamento com Cliente (April 2013)

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)



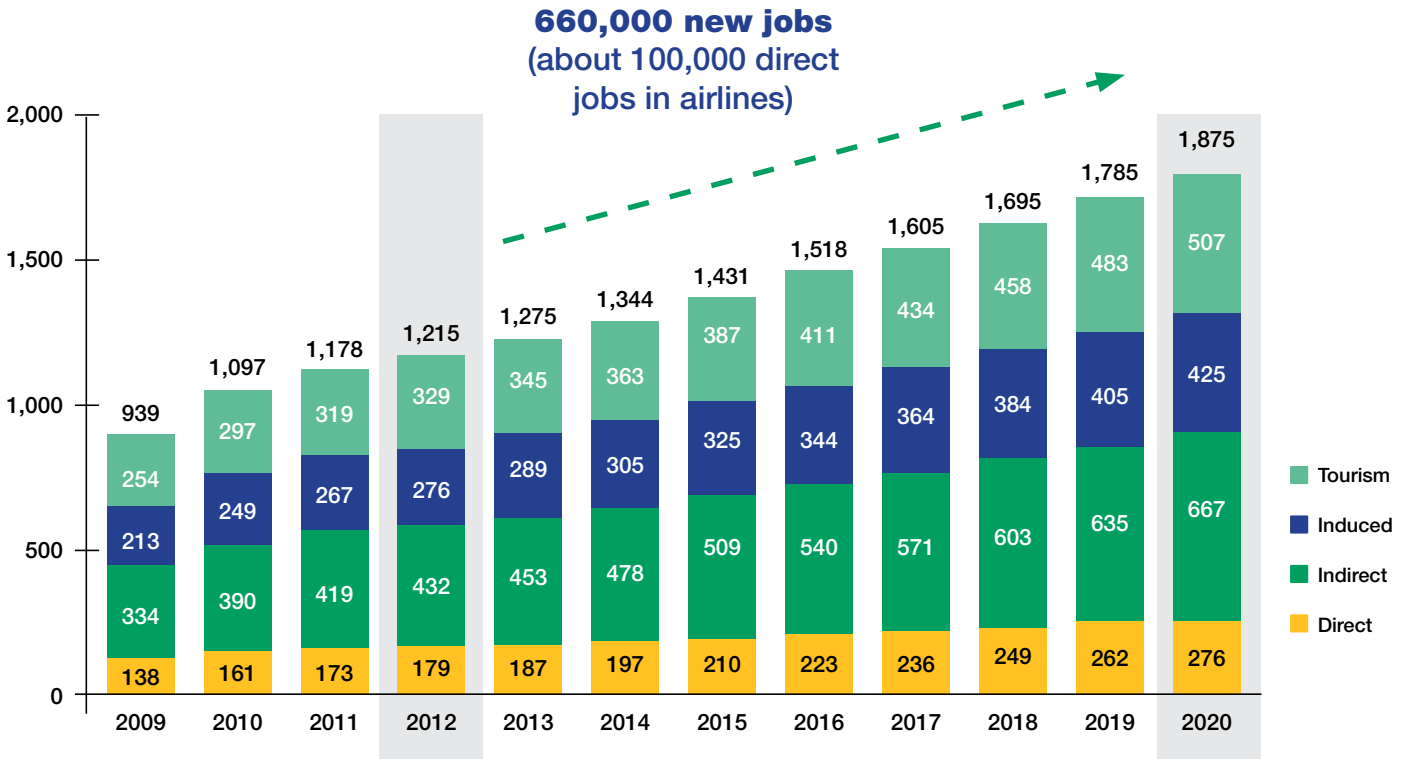
Exports + imports by air (US$ billions)	50	51	54	57	61	66	72	76	81

Source: Bain & Co (estimate in January 2013) – data prior to the revision date of this edition and projections are kept as in the original study

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)



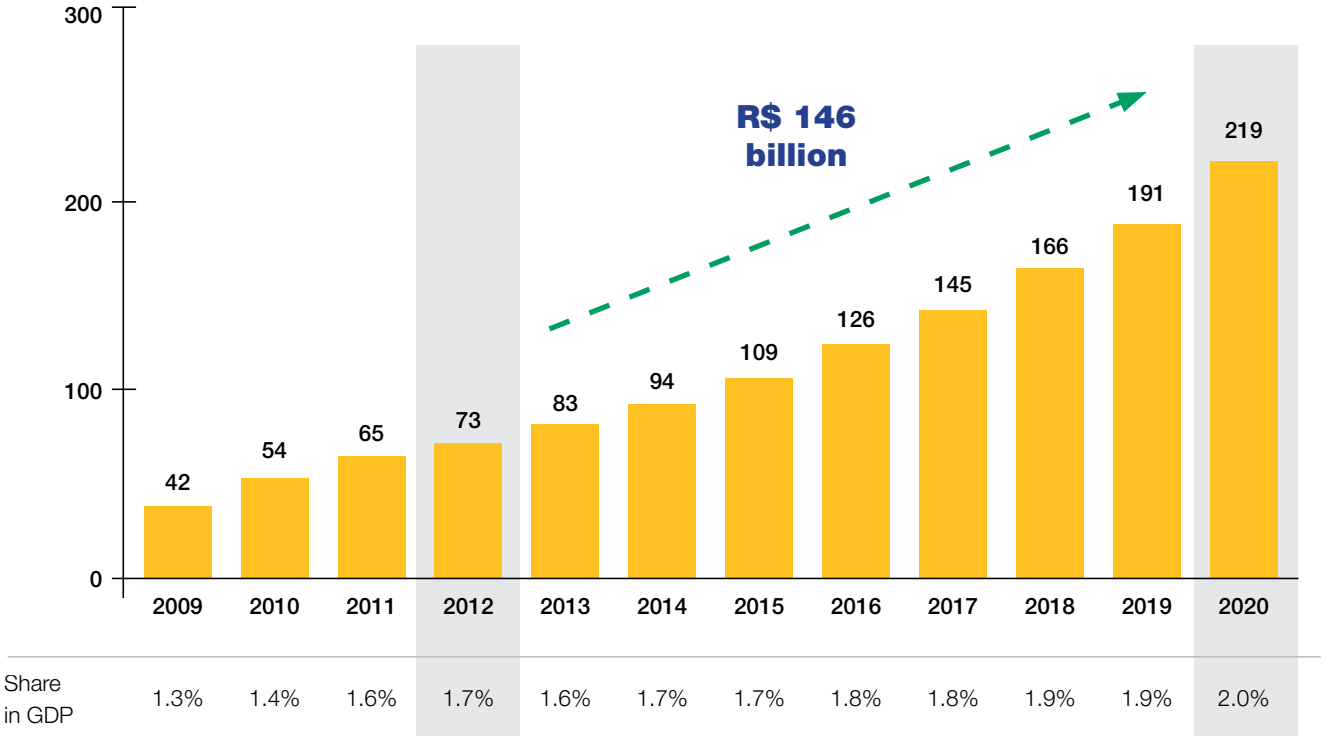
Sources: RAIS; ANAC; Study by Oxford-IATA; Bain & Co (estimate in January 2013) – data prior to the revision date of this edition and projections are kept as in the original study

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 GPD
(in billions of nominal R$)

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

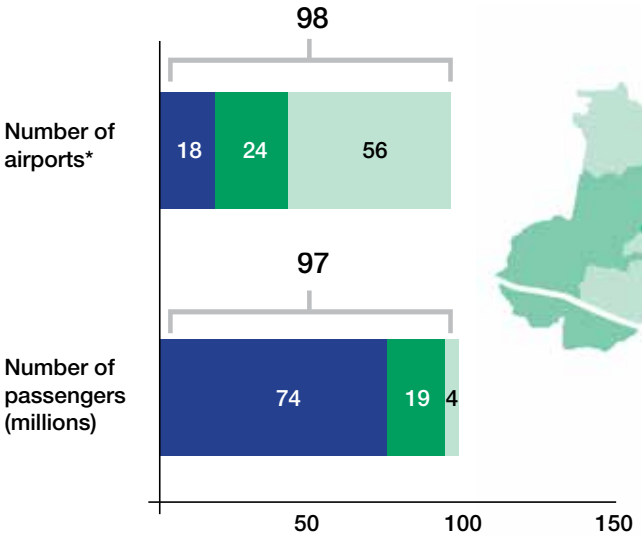


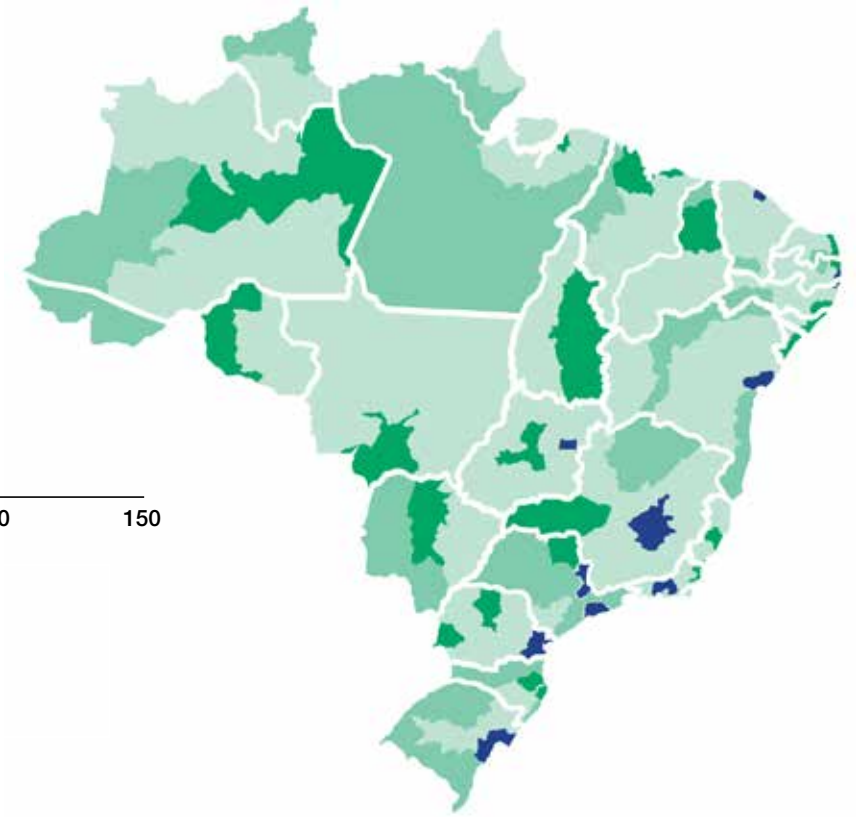
Source: Bain & Co (estimate in January 2013) – data prior to the revision date of this edition and projections are kept as in the original study

Poor geographic distribution

Passenger air transportation is currently concentrated in a few regions

Air transportation by IBGE mesoregion (2012)





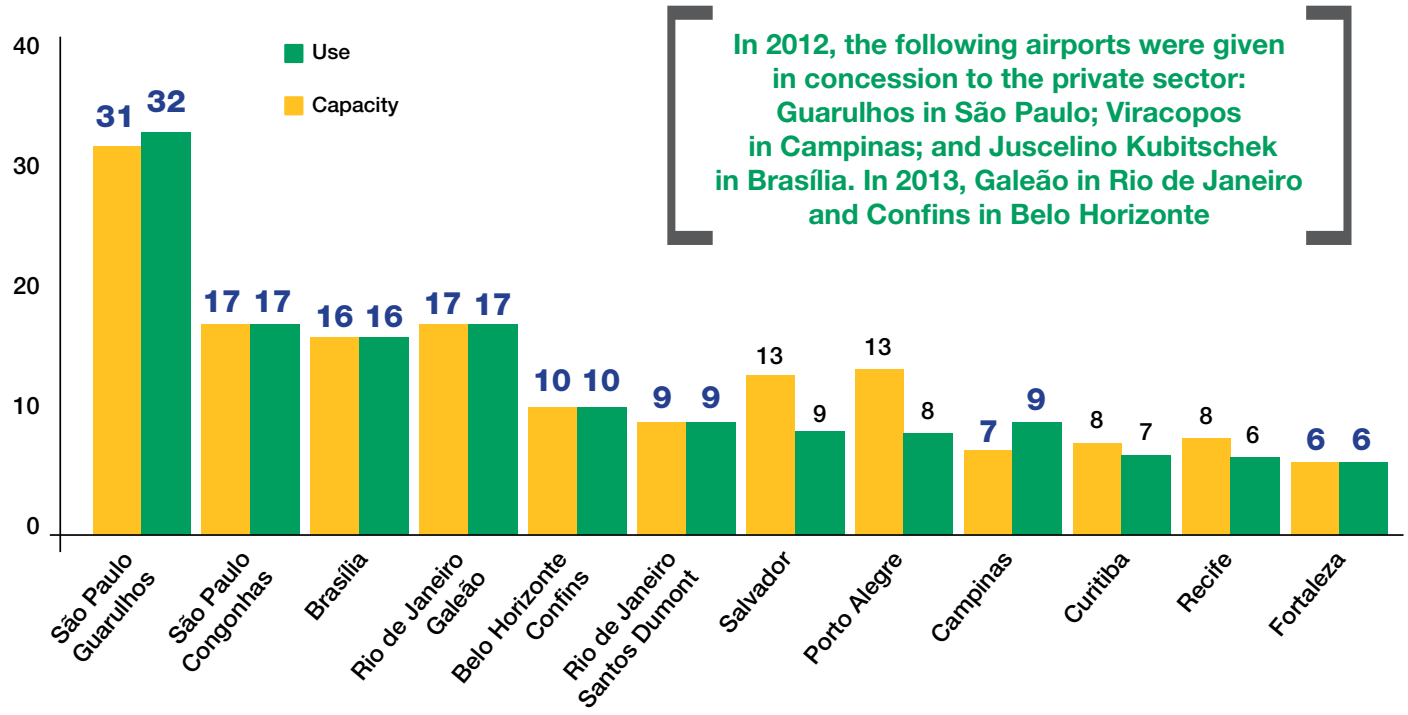
- Regions with more than 5 million passengers
- Regions with 1 to 5 million passengers
- Regions with up to 1 million passengers
- Regions without airports

Source: Bain & Co (estimate in January 2013)
*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)



In 2012, the following airports were given in concession to the private sector: Guarulhos in São Paulo; Viracopos in Campinas; and Juscelino Kubitschek in Brasília. In 2013, Galeão in Rio de Janeiro and Confins in Belo Horizonte

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

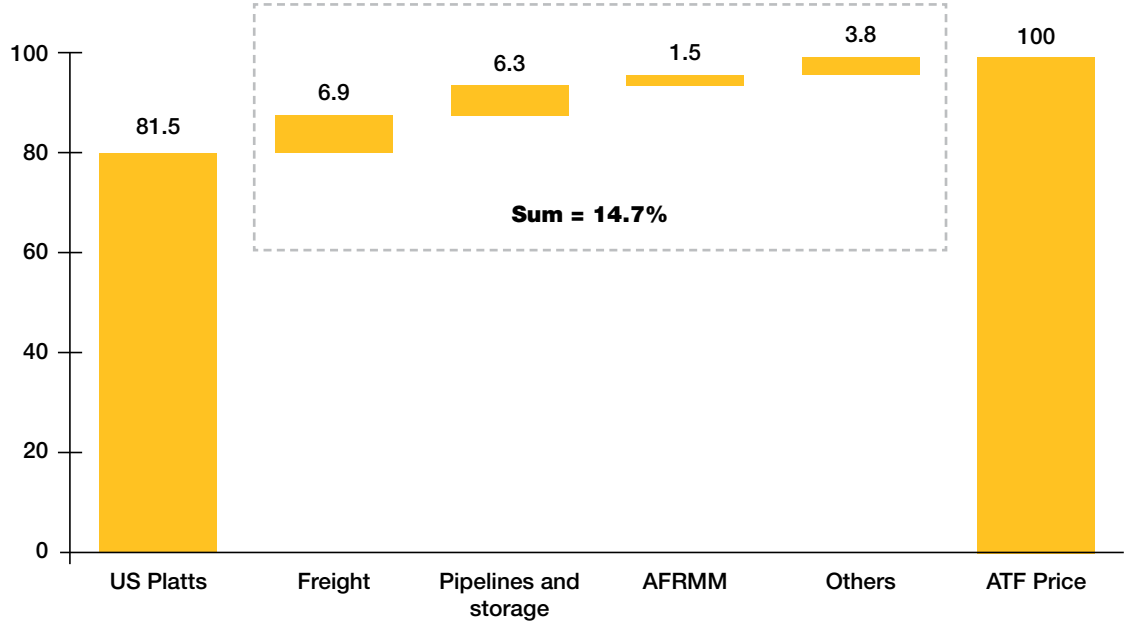
* Aviation turbine fuel

Fuel cost

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

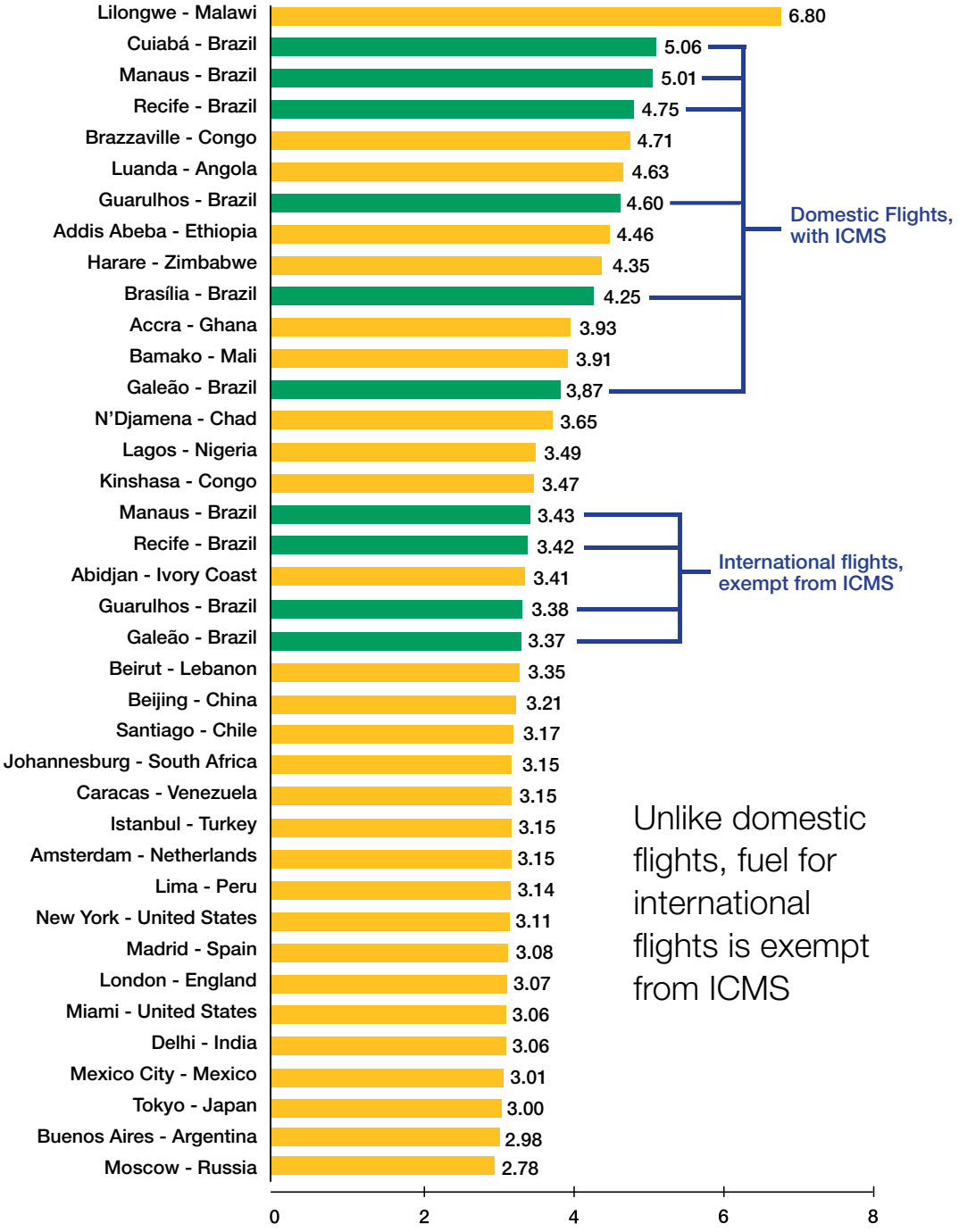
Although approximately 75% of the volume is produced in Brazil, ATF is priced on import parity

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 February 2014)



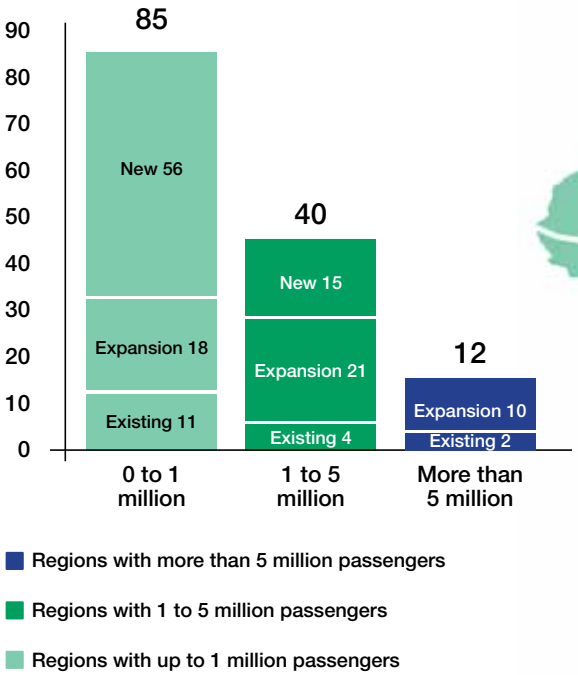
Unlike domestic flights, fuel for international flights is exempt from ICMS

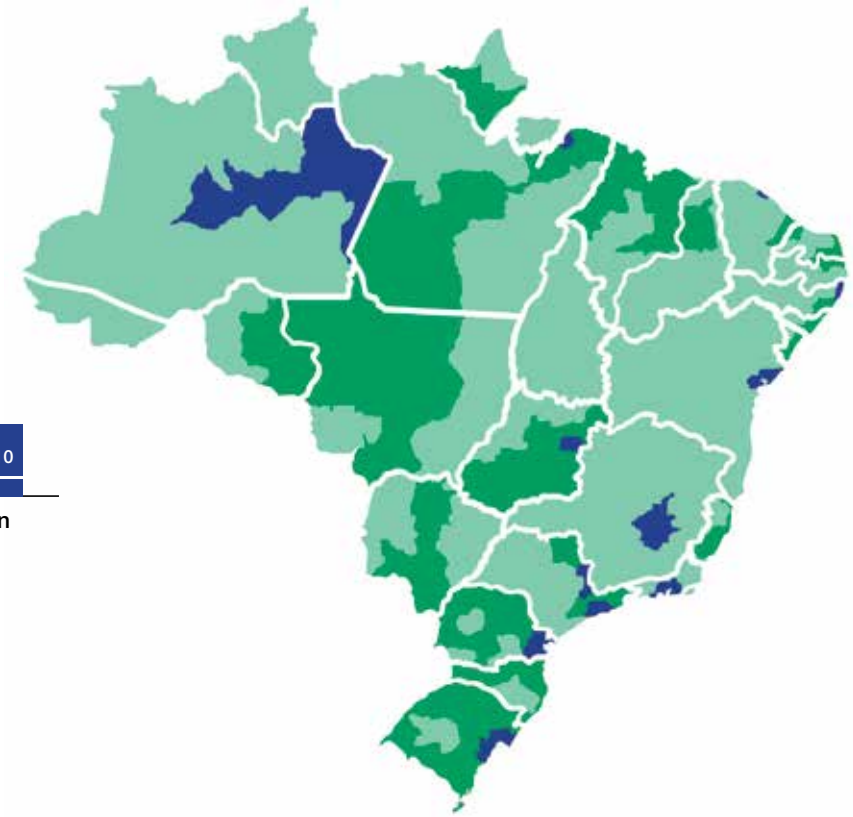
Source: IATA

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





Source: Bain & Co (estimate in January 2013)

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

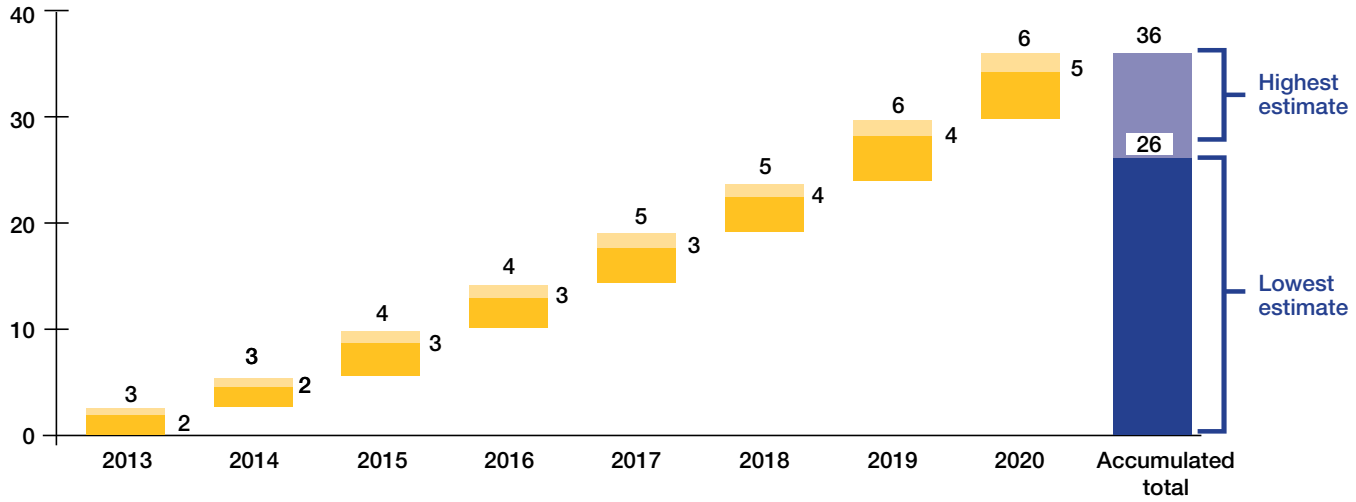
Review of routes and air traffic control procedures

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)



	2013	2014	2015	2016	2017	2018	2019	2020	Accumulated total
Number of new aircraft	36	44	60	63	69	77	85	94	526

Note: average aircraft valuations are based on financial statements of Brazilian publicly traded companies
Source: Bain & Co (estimate in January 2013)

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**

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**

Investments	Private: R$ 26-36 billion	Public: R$ 42-57 billion

*Approximate amounts and quantities **ABEAR Fleet
Sources: Bain & Co (estimate in January 2013); Infraero; Daesp; ANAC; IATA; HOTRAN