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**AIRLINE COMPETITION**

-- Note by Brazil (SEAE) --

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## **BRAZILIAN AIRLINE COMPETITION SINCE MARKET LIBERALIZATION**

### **1. Introduction**

1. Since Market liberalization by 2001, the airline market in Brazil has evolved due to three basic subjects: institutional reform, structural changes and remarkable growth of its domestic demand.

2. The institutional reform started with price liberalization and, implied at the creation of two new offices: National Agency of Civil Aviation – ANAC and Secretariat for Civil Aviation – SAC. This new institutional environment focuses on regulation incentives, fostering competition and dealing with bottlenecks on airline infrastructure.

3. Throughout this period, a remarkable structural change took place, as a result of a bankruptcy and entry process. In addition, this process was followed by code sharing agreements, mergers and acquisitions.

4. Finally, airline market has grown, mainly, due to domestic demand. Paradoxically, in spite of sales growth, firms have been facing financial losses during this period.

5. After this introduction, this written contribution is divided on the following sections: theoretical basis for institutional reform, the institutional reform, market structure, firms conducts, results and perspectives.

### **2. Theoretical basis for institutional reform**

6. The Brazilian airline industry institutional reform followed the wave of institutional reforms that took place around the world in regulated and infrastructure industries, since the 80's, in particular, in United States and United Kingdom. Such reforms were based on several criticisms like government failures, which promoted inefficiency in resources allocation.

7. The efficiency increase would come from competition, or some emulation of its role, due to entry menace. At this point, Baumol's contestable market concept would be central to the dynamic role of competition in market governance, promoting its liberalization.<sup>1</sup>

8. In particular, in airline industry, market contestability, through logistics management, moving airships among different routes, without relevant costs, have been understood as a practical case for economic literature.<sup>2</sup> In this case, infrastructure issues, such as slots, have been key elements for market contestability.<sup>3</sup>

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<sup>1</sup> Baumol W.J. (1982), Baumol, W.; Panzar, J.C.; Willig, R.D. (1982); Baumol, W.; Willig, R.D. (1986).

<sup>2</sup> Bailey, E.E.; Panzar, J.C. (1981).

<sup>3</sup> Baumol.W; Willig, R.D. (Op. Cit.)

9. The new institutional framework was settled to stimulate competition, by three complementary issues: identifying potentially competitive links in the supply chain; removing bottlenecks facilities and the proposal of a group of incentives to firms' competition.

### 3. Brazilian airline industry institutional reform

10. From the Brazilian Aeronautics Code – CGA, the Brazilian airline industry was build under a strict market regulation, established by the Brazilian Department of Civil Aviation – DAC, a military Office. Airline service was a public service explored by private enterprises. In this framework, the regulator defined key issues, such as: maximum number of firms, entry and exit conditions, supply and prices. Price regulation was costs oriented, and a national mechanism of cross subsidies was settled.

11. The airline deregulation started in 2001, softening entry requisites and gradually liberalizing prices and supply. Coherently with this new path, ANAC,<sup>4</sup> a civil regulator, focused on competition promotion, and SAC,<sup>5</sup> the civil office in charge to propose public policies that would deal with bottlenecks facilities. Air space control operations are still under air force jurisdiction.

12. To stimulate competition, was necessary to remove infrastructure bottlenecks, managing the available slots in the airports. In addition, opening the market to global competition, through an open skies policy, gradually granted the liabilities settled by the International Civil Aviation Organization – ICAO. However, this process was disturbed by three punctual events: Varig's bankruptcy, GOL and TAM air crashes, which started the Brazilian civil aviation crisis in 2007, and the Fifa's<sup>6</sup> 2014 World Cup, that will be held in Brazil.

13. In the beginning of the institutional reform, government dealt with Varig financial deterioration when it was finally bought by GOL. In this process, part of ANAC and the Administrative Council for Economic Defense - CADE efforts were devoted to analyze the resulting market concentration, proposing measures to anticompetitive effects.

14. Brazilian civil aviation crisis emerged from two air crashes – GOL, in 2006,<sup>7</sup> and TAM, in 2007.<sup>8</sup> These air crashes highlighted relevant constraints in infrastructure and in flight control activities. To answer these constraints, SAC was created, settling a national plan to improve infrastructure availability, through concessions program, started by 2011. This program contains Brazilian main airports, including national hubs like São Paulo, Brasília and Rio de Janeiro.

15. In particular, to cope with Fifa's World Cup boost in demand, ANAC and SAC have been promoting emergently supply increase, managing available slots, airlines logistics and taking a close look around supply constraints.

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<sup>4</sup> Lei nº 11.182/2005.

<sup>5</sup> Lei nº 12.462/2011.

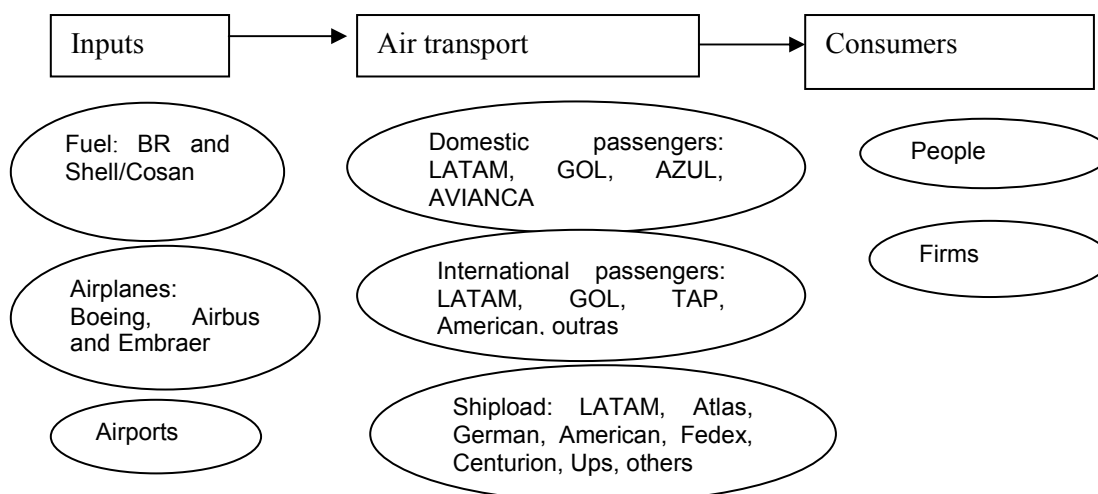
<sup>6</sup> Fédération Internationale de Football Association.

<sup>7</sup> A North American Legacy impacted a GOL flight over the Amazon Forest. There were no survivors from the Brazilian flight.

<sup>8</sup> After landing at Congonhas airport – São Paulo, a TAM aircraft speeded up, exploding in the ground. There were no survivors.

#### 4. Brazilian airline industry structure

Diagram, below, presents the supply chain structure in Brazil.



16. In this period, a remarkable structural change took place, due to a dynamic process of entry and exit in air industry, mergers and fast increase in entrant's market share. Looking at domestic market, from former big firms, only TAM survived. Nowadays, the entrant GOL<sup>9</sup> is the major supplier, considering WEBJET's acquisition, followed by other entrants, like AZUL and AVIANCA. Board 1, below, presents the domestic supply shared among these four firms.

Board 1 – Market structure – payed passengers transported in 2012.

Firm	%
GOL	39,90%
TAM	36%
AZUL	17,80%
AVIANCA	5,30%

Source: Anuário do Transporte Aéreo 2012.

17. In highlights, AZUL showed a significant growth, which pursuit is to pass 20% of market share. Adding to its organic growth, TRIP's acquisition has to be considered.

#### 5. Behavior

18. Airline industry showed a remarkable growth in recent years, 234% in domestic demand and 128% in international demand, accordingly to ANAC data. Due to this reason, air transport overcame road transport in Brazil, as shown by board 2, Bellow.

<sup>9</sup> Started its operations in the beginning of market deregulation.

Board 2 – Long distance interstate passengers transport. Road an air transport comparison.

Ano	Rodoviário		Aéreo	
	Passageiros	Participação (%)	Passageiros	Participação (%)
2003	70.376.135	72,07	27.274.711	27,93
2004	67.174.364	69,22	29.871.673	30,78
2005	67.107.741	65,21	35.800.957	34,79
2006	63.662.004	61,62	39.655.755	38,38
2007	61.931.808	58,75	43.488.856	41,25
2008	58.837.177	56,11	46.023.863	43,89
2009	59.347.615	52,77	53.115.310	47,23
2010	59.213.793	47,38	65.768.309	52,62
2011	57.125.036	42,73	76.567.650	57,27
2012	58.784.409	41,78	81.901.561	58,22
2013*	26.916.488	40,47	39.588.419	59,53

Source: ANAC.

\* - January to June.

19. In addition, the index of airplanes utilization increased upon 70% in 2012. The index of flights canceled has been reduced and the delays upon 30 minutes have been stabled, near 11%.

20. Since institutional reform, firms have implemented competitive strategies focused on market share conquer, based on three subjects: price discounts, business and logistics management and mergers.

21. Price discount practices were launched by GOL, that intended to be recognized as a low cost carrier. The pioneer use of internet by GOL was a central brick over which was designed administrative practices to cut off costs. All of these were used to built a label associated with efficiency, low cost and, mainly, low prices. This behavior was rapidly followed by competitors, which resulted in price competition increase.

22. According to ANAC, in this period, prices have been cut off by 42,77%. Deflated average prices of R\$ 515,17<sup>10</sup> and R\$ 294,83,<sup>11</sup> respectively in 2002 and 2012.

23. In relation to business management, it can be identified a pattern of evolving path. First there was a strong growth, derived from local flights. As soon as firm becomes bigger, it operates a increasing larger number of routes, and it turns to a national size. At this moment, in order to split costs, firm adopts higher scales. This higher scale can be affordable by mixing logistics based on hubs and higher capacity aircrafts.

24. From specific hubs, firms design chains of routes, operated by higher aircrafts. Due to this particular design, the number of indirect flights increases. However, this increasing makes systemic risks of delay become larger, as soon as all the chain depends on each link. A failure can cause a domino effect, disturbing all the chain and the set or related airports.

<sup>10</sup> US\$ 176,36, by annual exchange tax rate R\$/US\$ - 2,9212.

<sup>11</sup> US\$ 150,84 by annual exchange tax rate R\$/US\$ - 1,9546.

25. Nowadays, these are the Brazilian main hubs: São Paulo – key for international flights, for flights to Brazil’s southeast region and South America; Rio de Janeiro – key for international flights and for flights to Brazil’s northeast region; Brasília – key for flights to Brazil’s north, northeast and center-west regions.

26. In the end, market has become more concentrated, due to a set of code-share agreements and mergers among firms.

27. The code-share agreements come from the open skies policy implemented by ANAC. Through these agreements, foreign firms became able to split its international passengers from the entry hub. This can be done by using the national firm capillary chain.

28. On the other hand, mergers are a faster way to conquer market share. This way, however, has strong managing and financial effects, as will be discussed in the next section. Board 3, below, presents the main mergers that occurred in this period.

Board 3 – Mergers in airline industry from 2002 to 2012.

Acquirer	Acquired	Year
TAM	Pantanal	2009
TAM	LAN	2011
GOL	Varig	2005
GOL	Webjet	2012
AVIANCA	Ocean Air	2004
AZUL	Trip	2012

Source: CADE.

29. In its analysis, CADE has applied the concept of couple origin/destiny in order to define the relevant market. In general, its states direct flights – to national markets, and indirect flights – to international markets. In complement, the concepts of market contestability and rivalry are both fundamental to its analysis. About those mergers, TAM and LAN, GOL and WEBJET, several infrastructure constraints were identified and a set of structural and behavioral measures were settled, in particular, slots were allocated to other firms.

## 6. Results

30. Despite market growth, in general, firms have faced negative financial results in the last years. To ANAC, fuel prices – JET is the main factor that explains these negative results, since it has boosted costs, that has increased higher than firms revenues.

31. This point of view has been analyzed by foreign jurisdictions. Even though, in the United States, Borenstein<sup>12</sup> has not found conclusive facts that would prove this oil prices impact on airline results. On the contrary, he states that facing market growth, firms would be able to smooth their costs, adjusting their flight supply and, consequently, their fuel consumption and equipment purchase.

32. Complementary, the LATAM and GOL annual reports show that fuel and exchange rate impacts are already covered by risks management instruments, like hedge contracts.

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<sup>12</sup> Borenstein (2011).

33. Taking a look on ANAC statistics show that other costs items have been increasing, like staff expenditures. The growth of this kind of expenses, not closely related to operational activities can reveal that higher scales, even though the expected economies of scale, are facing administrative inefficiency.

34. The financial results from 2012 to LATAM and GOL sign other subjects that can explain financial losses. In special, these financial losses came from higher debts that rose in the near past. It has to be highlighted that these debts risen followed the mergers operations, in general. So, the strategy of fast growth, summed by chain managing based on hubs operation, has implied in fast debt growth and higher exposure to financial and currency risks.

35. The recent evolution of financial indicators shows a decrease on return, liquidity and debt indexes. Board 4, bellow, aggregate three indexes from 2009 to 2012: EBIT margin, solvency and financial leverage.

Board 4 – Financial indexes

	Margem EBITDA	Liquidez Geral	Alavancagem
2009	1,1%	0,48	0,82
2010	6,2%	0,47	0,80
2011	-0,3%	0,46	0,88
2012	-8,4%	0,36	1,00

Source: Anuário do Transporte Aéreo 2012.

## 7. Perspectives

36. Throughout of the text, was introduced the evolution of the Brazilian airline sector, in what regards to institutional changes, market growth, structural modifications, exit and entries of firms, strategies and conducts of the enterprises, as well as the recent financial performance of the sector.

37. As long as presented on the section referent to institutional reforms, was created the SAC, with the goal of solving the bottlenecks of the sector infrastructure, that were becoming more critical as long as the demand presented its significant growth.

38. Among the measures undertaken by the public sector, appears in evidence the program of airport concessions, impacting on the level of investment and expansion of logistics capacity. Between 2011 and 2013, 7 airports were granted to private initiative: São Gonçalo do Amarante (RN), Guarulhos (Campinas), Brasília, Guarulhos (Sao Paulo), Galeão (Rio de Janeiro) and Confins (Belo Horizonte). The last two occurred in 2013, with an estimated investment of about U.S. \$ 7 billion.

39. Because of these investments, considering the recent trend of demand growth, we expect significant opportunities for business growth, as well as the entry of new firms. Considering the issues raised in the preceding sections as to the relevance of the slots, and the financial performance of the sector, two important themes emerge, requiring special monitoring by the ANAC: management of the slots and financial analysis of companies.

40. The management of the slots, on the meaning of encourage the competition between the enterprises and the contestability of the market.

41. The financial analysis has a focus on the financial situation of the enterprises and it's sustainability on medium and long term. On this analysis, the monitoring of profitability index, liquidity and debt, on the way that ANAC comes implementing, constitute relevant analytical instruments to the

timely act of this agency in regards to systemic disturbance in the airline industry. In addition, as seen in the financial sector, the development of index parameters could help to warn financial disturbances.

## 8. References

- Administrative Council for Economic Defense – CADE. (2012) Voto do Conselheiro Ricardo Machado Ruiz. Ato de concentração nº 08012.008378/2011-95. VRG Linhas Aéreas S.A. e Webjet Linhas Aéreas S.A. Available in <http://www.cade.gov.br>
- (2011) Voto do Conselheiro Olavo Zago Chinaglia. Ato de concentração nº 08012.009497/2010-84. TAM S.A. e LAN Airlines S.A. Available in <http://www.cade.gov.br>
- (2018) Voto do Conselheiro Luiz Fernano Rigatto. Ato de concentração nº 08012.003267/2007-14. GTI S.A. e VRG Linhas Aéreas S.A. Available in <http://www.cade.gov.br>
- AVIANCA. Estados Financeiros Consolidados 2001. Available in <http://www.avianca.com/pt/Documents/relacao-com-investidores/estados-financieros-aviancataca-2011.pdf>
- BORENSTEIN, S. (2011) ON THE PERSISTENT FINANCIAL LOSSES OF U.S. AIRLINES: A PRELIMINARY EXPLORATION. Working Paper 16744. NBER, Cambridge, MA. Available in <http://www.nber.org/papers/w16744>
- GOL Linhas Aéreas Inteligentes (2013). Relatório de Sustentabilidade 2012. Available in <http://www.voegol.com.br/pt-br/investidores/paginas/default.aspx>
- LATAM Airlines Group (2013). Demonstrações Financeiras Consolidadas. Available in <http://www.latamairlinesgroup.net/phoenix.zhtml?c=251290&p=irol-irhome>
- National Agency of Civil Aviation – ANAC. Anuário do Transporte Aéreo 2012. Available in <http://www2.anac.gov.br/estatistica/anuarios.asp>.
- Secretariat for Economic Monitoring – SEAE. (2013) SEAE divulga levantamento das concessões federais licitadas em 2013. Available in <http://www.cade.gov.br>
- (2011) Parecer nº 06732/2011/RJ  
COGUN/SEAE/MF. Ato de concentração nº 08012.009497/2010-84. TAM S.A. e LAN Airlines S.A. Available in <http://www.cade.gov.br>
- (2018) Parecer nº 06041/2008/DF  
COGTL/SEAE/MF. Ato de concentração nº 08012.003267/2007-14. GTI S.A. e VRG Linhas Aéreas S.A. Available in <http://www.cade.gov.br>