

May 7, 2019 038/2019-PRE

## CIRCULAR LETTER

To: B3's Market Participants – BM&FBOVESPA Segment

## Re: Treatment of Securities Lending Positions to Account for Subscription to Subscription Warrants Issued by GOL Linhas Aéreas Inteligentes S.A.

On April 26, 2019, GOL Linhas Aéreas Inteligentes S.A. (company) published a notice to shareholders informing the market of the private issuance of subscription warrants.

Securities lending positions involving shares in the company will be treated to account for subscription to these subscription warrants in accordance with BM&FBOVESPA Clearinghouse's Operating Procedures Manual, 6.8.3 (4).

The treatment timetable and the activities applicable to the subscription process are described below.



Date	Activity
May 7, 2019	The securities lending agreements eligible to participate in the subscription process and the respective quantities of preemptive rights will be computed at close of day.
May 8, 2019	Start of the period for lenders to request the return of preemptive rights to the series of subscription warrants announced by the company.
May 14, 2019	End of the period for lenders to request the return of preemptive rights to the series of subscription warrants announced by the company.
May 15, 2019	The price of the preemptive right to the series of subscription warrants will be computed in accordance with BM&FBOVESPA Clearinghouse's Operating Procedures Manual, 6.8.3 (4). If no preemptive rights are traded, the price will be computed in accordance with the Annex to this Circular Letter.
May 20, 2019	Return of preemptive rights by borrowers to lenders.
May 22, 2019	Cash settlement of preemptive rights not returned to lenders on the basis of the price computed on May 15, 2019. No subagreements involving the subscription warrants will be created.

Further information can be obtained from Support for Processes & Settlement Services by telephone on +55 11 2565-5010, option 3, or by email at <u>liquidacao.posicoes@b3.com.br</u>.

Gilson Finkelsztain Chief Executive Officer Cícero Augusto Vieira Neto Chief Operating Officer



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## Annex to Circular Letter 038/2019-PRE

## Calculation of subscription right reference price

The following equation will be used to calculate the reference price of the subscription right:

$$W' = maximum[W - Kw, 0]$$
(1)

where W is the solution to equation (2):

 $W = \frac{1}{1+M} \operatorname{Call}(S + M * W, K, T, r, \sigma)$  (2)

and where:

W' is the subscription right reference price

M is the percentage of warrants

Kw is the unit value of a warrant

S is the stock price

K is the subscription right exercise price

*T* is the time to exercise

r is the fixed interest rate for time T

 $\sigma$  is the volatility of the stock in time T

Call(...) is the call option premium according to the Black-Scholes model

The volatility used to price subscription rights is the long-term volatility estimated by a GARCH(1,1) model with normal residuals. The following expression is assumed for returns:

$$\mathbf{r}(t) = \sqrt{\widehat{\sigma}^2(t)}\mathbf{z}_t$$



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where variance  $\widehat{\sigma}^2(t)$  is defined as:

$$\hat{\sigma}^2(t) = \omega + \alpha r^2(t-1) + \beta \hat{\sigma}^2(t-1)$$

Coefficients  $\omega$ ,  $\alpha$  and  $\beta$  are estimated for the series of returns from the stock using the maximum likelihood technique. Based on the estimated parameters for the model, the long-term variance V<sub>L</sub> of the returns is given by:

$$V_{L} = \frac{\omega}{1 - \alpha - \beta}$$

This long-term variance is used to compute the price of subscription rights. The square root of this variance is long-term volatility, which is adjusted for time to exercise.

$$V(T) = V_L + \frac{1 - \exp(-aT \cdot 252)}{aT \cdot 252} (\hat{\sigma}^2(t+1) - V_L)$$

where  $a = \ln \frac{1}{\alpha + \beta}$ . However, this is <u>daily</u> volatility and must be converted to <u>annual</u> volatility, which is given by:

$$\sigma(T) = \sqrt{252 \, V(T)}$$